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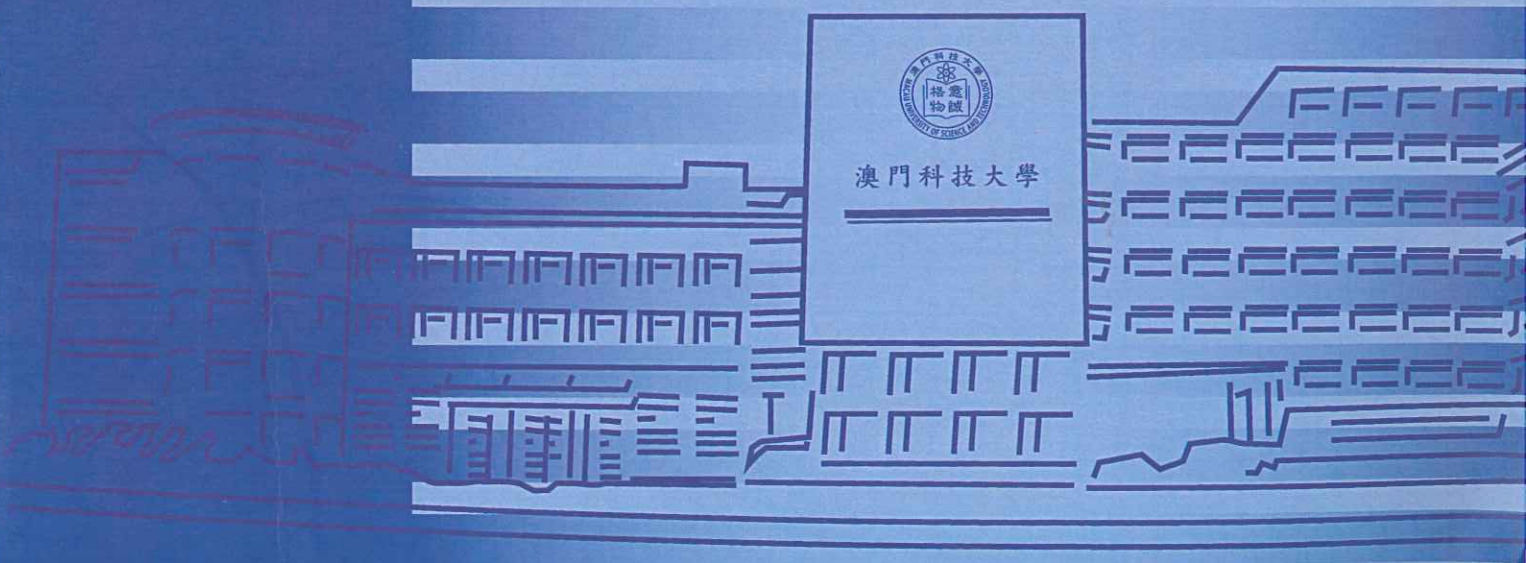
澳門科技大學

MACAU UNIVERSITY OF SCIENCE AND TECHNOLOGY

學術年報

Annual Academic Report of MUST

2011年



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澳門科技大學學術年報 (2011)

Macau University of Science and Technology Annual Academic Report (2011)

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主編的話

首先，對《澳門科技大學學術年報》（2011 年）的出版，表示最熱烈地祝賀！

在本期學術年報中，完成的科研項目數大幅增加，發表的學術論文水平顯著提高。在收錄的 197 篇學術論文, 大多數被 SCI 和 EI 等收錄, 其中《臨床試驗研究的障礙》一文刊登於世界最著名的學術期刊之一“Nature”(《自然》)， 這在澳門學術界是零的突破。

本期學術年報的另一個特點是收錄了澳門科技大學在2011年內開展的各項科普活動。 近年來，澳門特區政府大力提倡面向中小學生，面向社會開展科普活動，以提高廣大青少年的學習興趣和全社會的科學品位。 爲此, 澳門科技大學在 2011 年開展了天文及太空探索科普夏令營、 基於 RFID 技術的供應鏈系統模型製作夏令營及探索人體的奧秘：人體的結構與功能等科普活動, 均取得了良好的社會效果。

在各種會議上的公開演講及發表於報刊的文章也有所增加。 這說明大學的師生在進行學術研究的同時，也非常關注澳門社會的熱點問題，並積極建言獻策，產生了良好的社會影響。

澳門科技大學已經走過了十一年的旅程。 從 2000 建校伊始至 2005 年，大學著力發展教育課程, 並爲開展學術研究建立設施和儲備人才。 2006 年至 2010 年, 澳門特區政府資助科學研究的政策和措施日益完善, 大學師資隊伍的規模和水準也明顯提升, 大學快速發展學術研究得到了資源和人才保障, 使研究成果明顯增加。 2011 年 1 月, 中藥質量研究國家重點實驗室（澳門科技大學）正式揭牌，使我校中醫藥學科的研究條件、實力和水準大大提升, 並已經具備承擔和完成國家重大科研任務的能力。 另

外，“太空科學研究所”的成立和發展, 將使大學在月球科學研究領域凝聚實力, 力爭儘快成爲國家太空與月球科學領域的研究中心。 在人文、社會科學、管理科學等研究領域, 均已具備良好的發展基礎, 或已形成自己的研究特色和社會品牌。 我們相信，在今後的日子裏， 無論在學術研究方面，或是服務社會方面，必將取得更爲豐碩的成果，使大學全面踏上新臺階。

在此學術年報出版之時，我們謹向澳門基金會、科學技術發展基金等對大學學術研究工作的大力支持表示最衷心的感謝! 對全校教師在全力以赴承擔教學任務的同時，積極參加學術研究並協助籌辦各種會議等深表謝忱! 亦要衷心感謝科研管理處的同事們爲本期學術年報的出版所付出的心血和努力!

最後, 祝願大學在 2012 年學術更加繁榮! 各位師生成果更加豐碩!

學術年報主編，澳門科技大學
劉良 講座教授

學術年報主編，澳門科技大學
張曙光 教授

Preface

First of all, we expressed the warmest congratulations to the publication of 2011 MUST Annual Academic Report.

In the forthcoming issue of this year's Annual Academic Report, we witnessed a substantial increase both in the number of completed research projects as well as significantly improvement in the quality of academic papers. Out of 197 publications of academic papers, many of them were accepted and published by SCI and EI journals, one of the article titled "Perspective: The clinical trial barriers" had been published in "Nature", one of the world's most influencing and authoritative journals, which is a breakthrough in Macau's academic circle.

Another featured report of this year's issue is a collection of various science activities carried out by the Macau University of Science and Technology in 2011. In recent years, the Macau SAR government strongly advocated series of activities regarding promotion of science among for the primary and secondary students as well as the general society to increase their in learning and enhancing the sense of scientific knowledge in majority of young people throughout the society. Therefore, Macau University of Science and Technology had developed a series of summer camp programs in astronomy and space exploration，the summer camp in based on RFID Technology Supply Chain Simulation Model and discovering the Human Body from Structures to Functions etc. These events had brought out a good social impact.

We have also achieved a significant increase in terms of public speaking at various conferences and articles published in academic journals. This demonstrated that teachers and students of the University while carrying out academic research are also very concerned about the major topics in Macau society, bringing in a good social impact by addressing their points of view and positive suggestions.

Macau University of Science and Technology has been established for 11 years. From the beginning of 2000 to 2005, the university focused on the development of educational courses, and the establishment of facilities for academic research and reserving professional personnel. From 2006 to 2010, the Macau SAR government funding of scientific research policies and measures has improved steadily, the scale and level of university teachers also improved significantly, the rapid development of the University in academic research was supported by the guaranteed resources and personals, all these

contributed significantly to the increased research results. In January, 2011, the "State Key Laboratory of Quality Research in Chinese Medicine (MUST)" was officially inaugurated, greatly enhancing the research conditions, strength and level of medical disciplines in the University, and has the capacity to undertake and complete major national research tasks. In addition, the establishment and development of the "Space Science Institute", will enable the University to cohesion strength in the field of lunar science, and strive to become the center of national space and lunar science research in the field as soon as possible. In the field of humanities, social sciences, management science which have already established a good foundation for the development, has created their own characteristics and social brands. We believe that in the coming days, both in academic research or service to the community, the University is bound to achieve more fruitful results and reaching the next milestone.

We sincerely express our gratitude to the Macao Foundation, the Science and Technology Development Fund and other enterprises for their kind support towards our University's research work, and also to our faculty members for their devotion to teaching, active participation in research, assistance in organizing various conferences.

Thanks are also given to the colleagues in Research and Technology Administration Office for their contribution made during the publication process.

Co-Editor in Chief of
Annual Academic Report

Chair Prof. Liu Liang

Co-Editor in Chief of
Annual Academic Report

Prof. Zhang Shuguang

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Academic Conferences and Activities

1.高校圖書館資源建設專家培訓講座研討會

主辦機構：

教育部高等學校圖書情報工作指導委員會

澳門科技大學圖書館

協辦機構：

澳門圖書館暨資訊管理協會

資／贊助機構：

澳門基金會、北京世紀超星資訊技術發展有限責任公司、萬方數據(香港)有限公司、EBSCO、華藝數位股份有限公司

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2011 年 7 月 14 日至 2011 年 7 月 16 日

地點：

澳門科技大學圖書館 N406 室

會議總結：

【高校圖書館資源建設專家培訓講座研討會】 於 2011 年 7 月 14 日至 2011 年 7 月 16 日在澳門科技大學圖書館 N406 室舉辦。研討會由教育部高等學校圖書情報工作指導委員會和澳門科技大學圖書館主辦，澳門圖書館暨資訊管理協會承辦。探討會吸引了來自兩岸四地多所圖書館的近 70 名圖書館從業人員參加，其中館長或副館長近 10 名。主要講著有：

廈門大學圖書館館長 蕭德洪

廈門大學圖書館採訪部主任 鐘建法

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浙江大學圖書館採訪部主任 張軍

高校圖書館資源建設專家培訓講座研討會的主要目的是爲促進中國內地與澳門的高校圖書館界的學術交流，向大陸地區的文獻建設專家學習業內地高校圖書館在中文資源採訪工作中的先進理念和實踐經驗，更好的探討和研究大陸與港澳地區高校圖書館資源採訪工作。講座圍繞中文文獻採訪、建設與共用等方面展開研討。主要議題包括：

一、如何確定“館藏發展大綱”

二、重點圍繞中文文獻採購爲主的採購思路，爲港澳圖書館工作人員對內地文獻的數量、質量、代理商等情況去疑；

三、特藏建設，圍繞高校圖工委近年開始的百年華文圖書計劃等來分析中文資源的特藏發展計劃；

四、資源數字化發展及其他新發展之趨勢和影響。

講座結束之時，參會的圖書館從業人員們紛紛表示獲益匪淺，給予了充分的肯定。並且希望澳門科技大學日後能夠多舉辦此類研討會。

1.Library collection development training seminar

Organizer:

Steering Committee for Academic Libraries of China

Macau University of Science and Technology Library

Co - organizer:

Macau Library and Information Management Association

Sponsor:

Macao Foundation, Beijing Superstar Information Technology Co.,Ltd, WanFang Data Corporation (HK) LTD, Ebsco Publishing, Airiti Incorporation

Date:

From 14/07/2011 to 16/07/2011

Venue:

N406, Macau University of Science and Technology

Summary:

Library collection development training seminar held on July 14, 2011 to July 16, 2011, organized by the Macau University of Science and Technology Library N406 room. The seminar was organized by the Steering Committee for Academic Libraries of China and the Macau University of Science and Technology Library, Macau Library & Information Management Association is a co-organizer of the seminar. Nearly 70 librarians from the various libraries in Great China to participate in, which nearly 10 director or deputy director participate in. Speakers are:

XiaMen University librarian Xiao Dehong

XiaMen University library, officer of Acquisition Department Zhong Jianfa

Tsinghua University library, officer of Collection development department Wu Dongman

University Librarian of WuHan University Yan Jinwei

Deputy director of WuHan University library Zhang Hongyuan

FuDan University library, officer of Acquisition Department Long Xiangyang

ZheJiang University library, officer of Acquisition Department Zhang Jun

The main purpose of the Library collection development training seminar is to promote academic exchanges of university libraries in Mainland China and Macau, literature-building experts to mainland China to learn advanced industry to the University Library in the work of Chinese resources interview philosophy and practical experience, to better explore and study the mainland and Hong Kong and Macao university Library Resources interview. The lectures focus on Chinese literature interviews, building and sharing and so on, and discuss. The main topics include:

1. How to outline the collection development policies/conspectus
2. Sharing knowledge and experience on the publication quantity, quality, and sale agents of mainland China, both in print and electronic, focus on the resources in Chinese;
3. How to build special collections, by the case study of the Century Chinese Book Program;
4. the development of the resources of digital and other new development trends and impacts.

At the end of the seminar, participations who have said to benefit, given full recognition. And hope that the Macau University of Science and Technology would be able to organize more such seminars.

2.「澳門社會」系列講座

主辦機構：

澳門科技大學社會和文化研究所

資／贊助機構：

澳門基金會

時間:

2011 年 1 月 13 日至 2011 年 12 月 15 日

地點：

澳門科技大學圖書館大樓 N316

會議總結：

爲進一步加強與社會的聯繫，加深學生對澳門社會的了解，澳門科技大學舉辦「澳門社會」系列講座。

於 2011 年，該系列講座共舉行了 14 場，邀請本澳各界知名人士，包括立法議員、社團及商界領袖等，主講一系列有關澳門社會現況與未來的講座，內容涵蓋澳門社會、教育、經濟等各個不同領域。

講座以互動交流的形式進行，主講嘉賓深入闡析澳門各方面的情況及提出其見解，與科大師生一起分享他們豐富的經驗，加深了大家對澳門的了解及認識。每場講座均反應熱烈，師生湧躍出席。透過主講嘉賓的精彩演講，令大家獲益良多。

2.“Macau Society” Seminar Series

Organizer:

Institute for Social and Cultural Research, Macau University of Science and Technology

Sponsor:

Macau Foundation

Date:

From 13/1/2011 to 15/12/2011

Venue:

N316, the Library Building, Macau University of Science and Technology

Summary:

In order to enhance the connection with the society and increase the students' understanding on Macau society, Macau University of Science and Technology organizes “Macau Society” Seminar Series.

14 seminars were held in 2011. The speakers of “Macau Society” Seminar Series are Macau influential individuals, including Deputies of Legislative Assembly of Macau SAR, community and business leaders, etc. They talked about Macau's current and future situation, including the topics of society, education and economic development, etc.

The speakers shared their insightful experiences and exchanged their ideas with teachers and students. Audience gained a better understanding on Macau. Every seminar attracted many teachers and students to attend. Through the seminars, all of us learnt a lot.

3.中葡國際醫學論壇(系列一)：災難緊急醫療應變及模擬培訓

主辦機構：

澳門科技大學健康科學學院

承辦機構：

澳門健康管理及促進學會

資／贊助機構：

澳門基金會

時間:

2011 年 5 月 22 日至 24 日

地點：

澳門科技大學專科醫療訓練中心、澳門何鴻燊博士醫療拓展基金會演講廳及澳門仁伯爵綜合醫院演講廳

會議總結：

由澳門科技大學健康科學學院主持領導之「中葡國際醫學論壇(系列一)：災難緊急醫療應變及模擬培訓班」於 2011 年 5 月 22-24 日舉行。

來自澳洲、美國、葡萄牙、香港及中國內地的傑出講者獲邀擔任嘉賓講者，討論緊急護理在未來所面對最具挑戰之主題。

一連串特設的研討會、主題演講和技能培訓項目分別在三個不同的場地舉行，包括: 澳門科技大學專科醫療訓練中心、澳門何鴻燊博士醫療拓展基金會演講廳及澳門仁伯爵綜合醫院演講廳。

專題講座/嘉賓講者的內容如下：

演講(一)	
嘉賓講者：	Professor Dan Ramaer
所屬單位：	哈佛大學醫學院
講　　題：	醫療模擬訓練作爲醫療失當之預防技巧及災難醫療計劃
演講(二)	
嘉賓講者：	吳軍 教授
所屬單位：	中國人民解放軍第三軍醫大學
背　　景：	在現實生活中，作爲軍醫兼上校的吳軍教授，深受聯合國秘書長潘基文的讚揚，帶領救援隊進入四川大地震的重災區
講　　題：	分享在四川汶川與玉樹大地震醫療救援之開展工作
演講(三)	
嘉賓講者：	陳萍 教授
所屬單位：	中華人民共和國氣象局 中華醫學會核醫學分會執行委員
講　　題：	核擴散的預防與管理 - 日本福島核電廠輻射洩漏危機
演講(四)	
嘉賓講者：	Dr Cate McIntosh
所屬單位：	澳洲新英格蘭模擬技術中心
講　　題：	模擬基礎教育和緊急應變訓練的新方向
演講(五)	

嘉賓講者：	Dr Katie Walker
所屬單位：	澳洲衛生人力部
講　　題：	如何建設一個全國性的模擬醫療培訓計劃
演講(六)	
嘉賓講者：	Ms. Amanda Grauze
所屬單位：	澳洲聖母大學耳科研究所、澳洲聖約翰上帝醫院 - 技能訓練設施部教學總監
講　　題：	一系列有關急救術的導師課程
演講(七)	
嘉賓講者：	梁令邦 醫生
所屬單位：	香港急症科醫學院院士兼香港大學名譽助理教授
講　　題：	如何提高患者對急性心肌梗死（AMI）的診治成效

最後，澳門科技大學健康科學學院院長霍文遜醫生及澳門本地的一支強大醫學專家團隊，包括：澳門衛生局副局長陳惟蒨醫生、澳門仁伯爵綜合醫院副院長李偉成醫生、澳門仁伯爵綜合醫院外科主任 Dr. Rui Furtado、Dr Mario Evora 及其他人士，將圍繞澳門最新的急救醫療系統、澳門在過往的日子所面對的種種挑戰，以及澳門特區政府計劃於 2011 年 10 月在氹仔興建急症醫院等議題進行深入的討論及講解。

3.Sino-Luso International Medical Forum - (Series One) Emergency Disaster Management & Simulation Training

Host organization:

Faculty of Health Sciences, Macau University of Science and Technology

Co - Organizer:

Macau Healthcare Management and Promotion Association

Sponsor Organization:

Macao Foundation

Date:

From 22/05/2011 to 24/05/2011

Avenue:

1) Center of Medical Professional Development, Macau University of Science and Technology, 2) Lecture Hall, Dr. Stanley Ho Medical Development Foundation, 3) Lecture Hall, Centro Hospitalar Conde de São Januário.

Summary:

This 3-day forum event was chaired by the Macau University of Science and Technology, The Faculty of Health Sciences on 22nd to 24th May, 2011.

A team of prominent keynote speakers and researchers from the Commonwealth of Australia, the USA, Portugal, Hong Kong and Mainland China were invited in discuss the challenges facing the future of emergency care. A litany of specially designed workshops, keynote presentations and skills training programs were held separately at three different venues: the Centre of Excellence for Medical Professional Development at MUST, the lecture hall of the Stanley Ho Medical Development Foundation; and the lecture theatre of the Centro Hospitalar Conde de São Januário.

Keynote lectures included:-

Professor Dan Ramaer (Harvard Medical University, USA) on “Healthcare Team Simulation as a Malpractice Loss Prevention Technique and Disaster Planning”

Prof Wun Jun (The 3rd Military Medical University) on a real life story Senior Colonel military doctor commended by Secretary-General of the United Nations, Ban Ki-Moon. Prof Wu lead the rescue mission team into the heart of the major earthquake zone in Sichuan. His timely presentation on “Organization of Medical Rescue of Wenchuan and Yushu Earthquake” was a moving experience.

Prof Chen Ping - (Executive Member of Nuclear Medicine Association, CMA, PRC) presented on the topic of “Prevention and Management on Nuclear Catastrophe” with current reflections on Fukushima.

Dr Cate McIntosh (Hunter New England Skills and Simulation Centre, Australia) on New Directions in Simulation Based Education & Training in Emergency Response Capabilities.

Prof Katie Walker (Commonwealth Australia Health Workforce) on how to build a national simulation healthcare training program.

Amanda Grauze – (The Center, Skills Training Facility comprising The Ear Science Institute of Australia, University of Notre Dame, Australia and St John of God Healthcare) on a series of Train the

Trainers Life Support Programs.

Keynote speaker from Hong Kong - Dr. Leung Ling-Pong ((Fellow of Hong Kong College of Emergency Medicine & Honorary Assistant Professor of Hong Kong University shared his insight on "How to improve the outcome of Acute Myocardial Infarction (AMI) in patients".

Finally, Dean of Faculty, Professor Manson Fok and a strong team of Macau experts in the field, including Vice-Director of Health Bureau of Macau, Dr Chan Wai Sin, Vice Superintendent of Government Hospital, Dr Lei Wai Seng, Dr Mario Evora, Dr Rui Furtado and others discussed and gave an overview of the latest development of emergency healthcare systems in Macau, SAR. The went over challenges Macau has been facing in the past and present including new plans of Taipa emergency departments scheduled to be opened in October 2011.

4.中葡國際醫學論壇(系列二)：

微創外科新技術暨腹腔鏡技術培訓班

主辦機構：

澳門科技大學健康科學學院

承辦機構：

澳門健康管理及促進學會

資／贊助機構：

澳門基金會

時間:

2011 年 8 月 14-16 日

地點：

澳門科技大學專科醫療訓練中心、澳門何鴻燊博士醫療拓展基金會演講廳

會議總結：

由澳門科技大學健康科學學院主持領導之「中葡國際醫學論壇(系列二)：微創外科新技術暨腹腔鏡技術培訓班」於 2011 年 8 月 14-16 日舉行。

一眾優秀的主講嘉賓、外科專家和教練均來自葡萄牙，瑞典，澳洲，中國大陸及香港獲邀出席這項有意義的論壇。

澳門衛生局派出多名官員代表主持是次論壇。其中一名特邀嘉賓是葡萄牙外科學會主席恩里克•卡斯特洛教授出席論壇，並發表他的主題演講 “在 21 世紀的外科教學”。

澳門科技大學與廣州醫學院第一附屬醫院微創外科培訓中心，以及葡萄牙外科協會簽署『專科醫療教育項目國際合作協議』。

一連串特設的研討會、主題演講和技能培訓項目分別在兩個不同的場地舉行，包括: 澳門科技大學專科醫療訓練中心及澳門何鴻燊博士醫療拓展基金會演講廳。

醫學論壇以微創外科技術爲主，並側重於良好的治療成效，例如：確保病人的安全、具爭議性議題及不同病症的處理。當中談及新興的技術，如機械臂。因此，國際知名機械臂外科專家以『達文西機器手臂根除性攝護腺切除術』及『機器人前列腺切除術和機器人輔助肝膽胰外科手術』等主題舉行講座。

爲期三天的主題講座邀請了超過 12 名高級外科專家，精心挑選的題材，爲外科醫生和研究人員提供以下題材的深入概述，包括：結腸，肝臟，泌尿系統問題，乳腺，甲狀腺，腎臟等疾病的治療方法。此外，兩名分別來自瑞典和澳洲的醫學模擬教育專家通過舉辦工作坊教授中級至高級程度的腹腔鏡模擬訓練課程。

Sino-Luso International Medical Forum (Series Two) :
Minimally Invasive Surgery & Laparoscopic Surgical Training
Fórum Médico Internacional Sino-Luso (Segunda Fase)
Cirurgia Minimamente Invasiva e Treino em Cirurgia Laparoscópica
中葡國際醫學論壇(系列二)：微創外科新技術暨腹腔鏡技術培訓班

4.Sino-Luso International Medical Forum - (Series Two) Minimally Access Surgery & Laparoscopic Surgical Training

Organizer:

Faculty of Health Sciences, Macau University of Science and Technology

Co-Organizer:

Macau Healthcare Management and Promotion Association

Sponsor:

Macao Foundation

Date:

From 14/08/2011 to 16/08/2011

Venue:

1) Center of Medical Professional Development, Macau University of Science and Technology, 2) Lecture Hall, Dr. Stanley Ho Medical Development Foundation

Summary:

This 3-day forum event was chaired by the Macau University of Science and Technology: Faculty of Health Sciences, held on the 14th – 16th August, 2011.

An outstanding list of invited keynote speakers, surgical experts and trainers have came from Portugal, Sweden, Australia, the Chinese mainland, and Hong Kong to attend this meaningful forum. Our local officials from the Health Bureau of Macau SAR presided over the entire forum. One of our special guests, the President of Portuguese Surgical Society, Professor Henrique Castelo was attending the forum and delivered his keynote lecture titled as “Teaching Surgery in the 21st Century”.

A meaningful Memorandum of Understanding dossier was signed with MUST to signify the official collaboration between the faculty and internationally renowned surgical society.

A litany of specially designed workshops, keynote presentations and skills training programs were held at two different venues: the Centre of Excellence for Medical Professional Development at the MUST; and the Lecture Hall of the Stanley Ho Medical Development Foundation.

This important medical forum was primarily focused on minimally invasive surgical techniques and emphasizing on good outcomes; namely patient safety and management on many challenging issues and different specialties. Among them were emerging technologies, such as tele-robotic arms. For this, internationally renowned Tele-Robotic surgical experts gave lectures on Robotic Prostatectomy and Robotic assisted HPB Surgery.

The extensive 3-day program featured more than 12 high-level surgeons, with carefully selected lectures to provide surgeons and researchers with an in-depth overview of how to treat diseases of colon, liver, urological issues, breast, thyroid, kidney, etc. Two simulation educationalists from Sweden and Australia provided intermediate to advanced laparoscopic simulation training workshops.

5.中葡國際醫學論壇(系列三)：超聲波生命支援術暨超聲波診斷技術培訓班

主辦機構：

澳門科技大學健康科學學院

承辦機構：

澳門健康管理及促進學會、澳門急重症醫學會

資／贊助機構：

澳門基金會

時間:

2011 年 9 月 24 日, 29-30 日

地點：

澳門科技大學專科醫療訓練中心、澳門美高梅酒店演講廳

會議總結：

由澳門科技大學健康科學學院主持領導之「中葡國際醫學論壇(系列三)：超聲波生命支援術暨超聲波診斷技術培訓班」於 2011 年 9 月 24, 29-30 日，分別假澳門科技大學專科醫療訓練中心(工作坊) 及澳門美高梅酒店演講廳(醫學研討會)舉辦。

整個活動深受歡迎。我們有幸邀請一班來自意大利、法國和香港優秀的主講嘉賓、專家學者來參加這項有意義的論壇。澳門衛生局派出多名官員代表主持是次論壇。海外嘉賓包括：來自意大利的世界重症超聲聯盟（WINFOCUS）主席 Dr. Enrico Storti，來自法國的世界重症超聲聯盟-學術委員會主席 Prof. Daniel Lichtenstein，來自香港的香港急症科醫學院超聲波委員會前主席鄧可鳴醫生。透過是次論壇，三位主題演講者發表其最新的研究結果。

這給我們提供了一個很好的機會，匯聚了世界各地資深學者、專家，共同分享在重症監護超聲波技術上的前沿知識及最新進展。

醫學論壇以介紹世界重症超聲聯盟（WINFOCUS）爲主，它是一個跨國性的全球網路，希望能通過是次論壇，集中引進『急重症臨床超聲音技術』到本地的前線醫護人員。是次論壇發表了一個令人振奮的演講主題，名爲 FALLS 的操作方法（透過肺部超聲波檢查限制輸液）是其中一個研討會項目。同時，我們可以認識到香港急診超聲波技術的最新發展。

最後，澳門科技大學健康科學學院院長霍文遜醫生率領本地一支強大醫學專家團隊，包括：澳門仁伯爵綜合醫院外科主任 Rui Furtado、香港急症科醫學院超聲波委員會主席 Dr. Ma Kok Leung 及其他人士主持論壇，對本澳急診醫學的最新發展給予深入概述及討論，並希望澳門醫療界在未來的日子裡能夠達至國際標準。

Point-of-care Ultrasound
Empowering health care worldwide ...
Enrico Storti, MD

5.Sino-Luso International Medical Forum - (Series Three) Ultrasound Emergency and Trauma Life Support

Organizer:

Faculty of Health Sciences, Macau University of Science and Technology

Co - Organizer:

Macau Healthcare Management and Promotion Association, Macau Society of Emergency and Critical Care Medicine

Sponsor:

Macao Foundation

Date:

From 24/09/2011, 29/09/2011 to 30/09/2011

Venue:

1) Center of Medical Professional Development, Macau University of Science and Technology, 2) Lecture Hall, MGM Grand Macau

Summary:

This 3-day forum event was chaired by the Macau University of Science and Technology: Faculty of Health Sciences, medical symposium and held on 24th September, 2011 and 2-day workshops were held on 29th– 30thOctober independently.

This was a very well received event. We were so blessed to have a outstanding list of invited keynote speakers, experts and trainers from Italy, France and Hong Kong to attend this meaningful forum. Our local officials from the Health Bureau of Macau SAR presided over the entire forum. Overseas guest included Dr Enrico Storti (Italy), The Broad Director of World Interactive Network Focused on Critical Ultrasound (WINFOCUS), Prof. Daniel Lichtenstein (France), the Chairperson of Scientific Committee of WINFOCUS and Dr Tang Ho Ming (Hong Kong), the past Chairperson of Ultrasound Committee of the HK College of Emergency Medicine. These three keynote speakers brought their latest research findings to this forum.

This provided us a great opportunity to gather with high level experts around the globe and to share both the knowledge and the latest advancements of Ultrasound technology in critical care. Separate workshops, keynote presentations and skills training programs were held separately at two different venues; the Centre of Excellence for Medical Professional Development at MUST; and the Vista Function Room of MGM Macau.

This important medical forum was primarily focused on the introduction of WINFOCUS, a worldwide network specialized in critical ultrasound medical techniques to our frontline medical professionals here in Macau. An exciting topic named FALLS (Fluid Administration Limited by Lung Sonography) Protocol was presented as one of the symposium programs. Also, an update was given on the latest development of Emergency Ultrasound in Hong Kong.

Our Dean of Faculty, Prof Manson Fok and a strong team of Macau experts in the field, including Dr Rui Furtado, Dr Ma Kok Leung (Chairperson of Ultrasound Committee of HKCEM), and others

presided over the entire forum in order to discuss and give an overview of the latest development of Emergency Medicine here in Macau, SAR and how to move toward an international standard in the future.

6.中葡國際醫學論壇(系列四)：心血管疾病的現代管理

主辦機構：

澳門科技大學健康科學學院

承辦機構：

澳門健康管理及促進學會

資／贊助機構：

澳門基金會

時間:

2011 年 11 月 26-27 日

地點：

澳門科技大學專科醫療訓練中心、澳門金麗華酒店演講廳

會議總結：

由澳門科技大學健康科學學院主持領導之「中葡國際醫學論壇(系列四)：心血管疾病的現代管理」於 2011 年 11 月 26-27 日舉行。

論壇其中一位主講嘉賓-高長青教授，現任中華醫學會胸心血管外科學分會副主任委員兼秘書長、中國人民解放軍總醫院 (即 301 醫院) 心血管外科主任，在醫、教、研和保健等方面取得了令人矚目的成績，尤其在微創心臟外科領域取得了令國際同行歎服的卓越成就，他領銜開創的中國機器人不開胸心臟直視手術在亞洲位居第一，被譽爲『亞洲機械手臂外科手術之父』。其他演講嘉賓包括：來自非洲莫桑比克馬普托大學的一名傑出的外科醫生 Dr. Albertino Damasceno，來自香港的著名心臟兒科專家梁平教授，香港心臟專科學院候任院長王國耀醫生獲邀出席論壇。

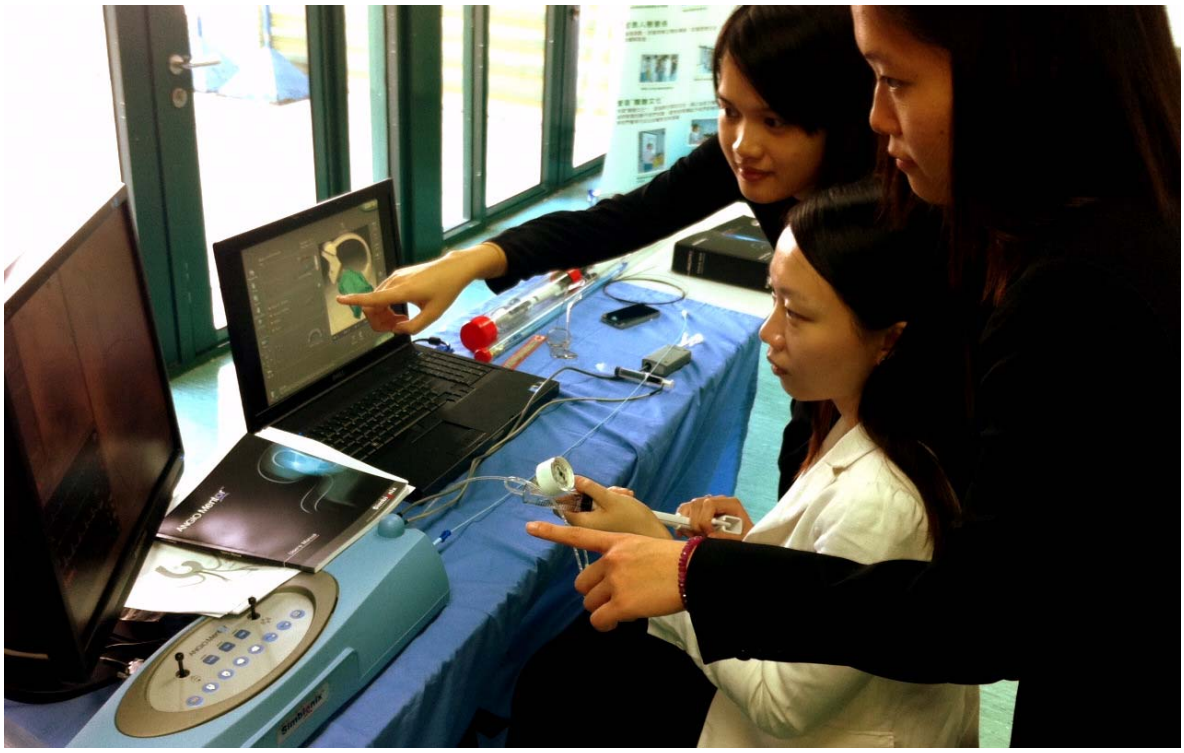
高長青教授在這次中葡國際醫學論壇上擔當了中國親善大使，大力宣傳我國的高科技成就，標志著我國機器人微創心臟外科的發展進入了世界的領先行列。在 2011 年，高教授率領心血管外科團隊從巴西聖保羅接受培訓。

此外，高教授團隊已完成機器人心臟手術近 500 例。在艱辛的過程中，5 台手術爲國際首創。高教授被聘爲《美國機器人外科雜誌》副總編，並已先後發表超過 230 篇有關二尖瓣、主動脈瓣修復術及換置術、心臟移植等學術領域的論文和出版多本書籍。

論壇之目的是爲了完善現時對心血管疾病的技術質量。

與會者就兩方面的範疇發表一個全面性的演講，展示了病人安全和機器人技術的最新發展與趨勢。

最後，澳門科技大學健康科學學院院長霍文遜醫生與澳門心臟學會主席兼澳門仁伯爵綜合醫院心臟科主任 Mario Evaro 醫生主持論壇，並概述了本澳目前對心血管疾病的治療方法。兩人宣佈一所全新的心臟介入導管室將座落在澳門科技大學校園，爲市民提供更優良的專業醫療服務。



6.Sino-Luso International Medical Forum - (Series Four) Current Approach in Cardiovascular Disease

Organizer:

Faculty of Health Sciences, Macau University of Science and Technology

Co - Organizer:

Macau Healthcare Management and Promotion Association

Sponsor:

Macao Fundation

Date:

From 26/11/2011 to 27/11/2011

Venue:

1) Center of Medical Professional Development, Macau University of Science and Technology, 2) Lecture Hall, Grand Lapa Macau

Summary

This 2-day forum event was chaired by the Macau University of Science and Technology: Faculty of Health Sciences on 26th -27th November, 2011

A brilliant tele-robotic surgeon dubbed "The Father of Robotic Surgery in Asia", Prof Gao Changqing from 301 PLA General Hospital participated in our forum as one of our keynote speakers.

He was joined by other leading experts in his field. Chief among them were Dr Albertino Damasceno from Mozambique, a cherished surgeon from University of Maputo, Prof Maurice Leung, a world renowned pediatric cardiologist, and Dr Chris Wong, the pre-elect President of Hong Kong College of Cardiology.

Professor Gao Changqing was truly an ambassador of Chinese high science at our Sino-Luso International Medical forum. For example, in 2011 Professor Gao trained up the entire robotic surgical team from Sao Paulo, Brazil.

Moreover, Professor Gao has performed over 500 operations, especially in robotic minimally invasive heart surgery. Amongst these tough procedures, five of them are recognized as "First in the World". Professor Gao is an associate Editor-in-Chief of the Journal of Robotic Surgery of USA and has successfully published over 230 journal articles and 5 books in the areas of mitral, aortic valve repair and replacement, and heart transplantation.

The purpose of all sessions was to improve the quality of current techniques in handling cardiovascular diseases. The participants gave a comprehensive presentation of trends in relations to the latest developments of this very special field; namely patient safety and new tele-robotic technologies.

Lastly, Dean of Faculty, Prof Manson Fok and Dr Mario Evaro, the Chairperson of the Macau Cardiology Association and Head of Cardiology Department at the Hospital Centre S. Januario presided over the entire forum and gave an overview of the current approach to cardiovascular diseases here in Macau. They also announced a brand new DSI heart center to be officially opened in the University Hospital here on the MUST campus.

7.十字門法學論壇——私有房屋的公法限制

主辦機構：

澳門科技大學法學院

資／贊助機構：

澳門基金會

時間:

2011 年 01 月 18 日

地點：

澳門科技大學 N 座圖書館大樓 N101 禮堂

會議總結：

本次論壇爲法學院 2010-2011 學年第四場「十字門法學論壇」，由澳門法制研究會協辦，主題爲“私有房屋的公法限制”。內地中山大學法學院韓光明副教授、法學院 2009 級碩士生陳華強大律師、2010 級博士生吳家裔分別從廣東和澳門本地事實出發，對私人使用房屋常見物業糾紛、澳門《禁止非法提供住宿》法律的實施效果以及澳門是否應當私有房屋開辦經濟型酒店等問題發表意見。

香港簡家聰律師行高級合夥人簡嘉聰律師，澳門大學法學院副院長、立法議員唐曉晴教授，澳門公義律師事務所石立炘大律師則從香港、澳門的法律制度、司法實踐以及相關法律理論等角度進行點評。

謝耿亮助理教授主持論壇。澳門立法會吳在權議員、法律改革及國際法律事務局陳軒志副局長、澳門特區檢察院梁文英檢察官、澳門法學協進會會長李煥江大律師等校外嘉賓，法學院懷效鋒院長、方泉助理院長以及法學院老師、博士和碩士研究生等參加了本場論壇，圍繞主題進行了熱烈討論。

7.The 4th SHIZIMEN Law Forum for the 2010-2011 Academic Year：“Public Law Limitations on Private Property”

Organizer:

Faculty of Law

Sponsor:

Macao Foundation

Date:

From 18/01/2011 to 18/01/2011

Venue:

Library Building N101 Hall

Summary :

This is the 4th SHIZIMEN Law Forum for the 2010-2011 Academic Year, sponsored by the Faculty of Law, cosponsored by the Macau Legal System Research Association, with its theme of “Public Law Limitations on Private Property”. Associate Professor of School of Law of Sun Yat-Sen University HAN Guangming, Graduate Student 2009 from the Faculty of Law and lawyer CHAN Wa Keong, Ph.D Student 2010 NG Ka Yui delivered their opinions respectively on legal solution of the common condominium disputes, the effect of the Law No.3/2010 on “Prohibition of Providing Illegal Accommodation” and the question of whether Macau residents shall be allowed to open budget hotel with their private real estate, based on the facts and practices of Guangdong and Macau.

Mr Frederick Kan Ka-chong , the Senior Partner of Fred Kan & Co KAN, Professor Tong Io Cheng, the Macau's legislator and the Associate Dean of Faculty of Law of University of Macau, and Lawyer Paulino Comandante, made their comments respectively based on the law and judicial practices of Macau and Hong Kong and related legal theories.

Assistant Professor XIE Gengliang from the Faculty of Law hosted the forum. The Macau's legislator Uug Chok Kun, Deputy Director of the Law Reform and International Law Bureau Chan Hin Chi, Prosecutor of the MSAR Leong Man Ieng, President of Associação de Promoção Jurídica de Macau and Lawyer LEI Wun Kong, Professor HUAI Xiaofeng (the Dean of Faculty of Law), Associate Professor FANG Quan (the Assistant Dean of Faculty of Law) , the undergraduates and graduate students, and guests from and outside of the university attended the forum.

8.十字門名家講壇——中國土地改革的法學思考

主辦機構：

澳門科技大學法學院

資／贊助機構：

澳門基金會

時間:

2011 年 2 月 18 日

地點：

澳門科技大學 N 座圖書館大樓 N101 禮堂

會議總結：

本次學術講座爲法學院主辦之第五場「十字門名家講壇」，中國著名法學家、中國法學會銀行法學研究會會長、中國法學會民法學研究會副會長、中國政法大學民商經濟法學院院長王衛國教授應邀出席講壇，作題爲《中國土地改革的法學思考》的演講。其從當今中國內地熱烈討論的房地產市場問題和三農問題入手，指出中國內地現行土地制度的基本構架爲“公有私用，兩軌並行”，即國有土地所有權與集體土地所有權並存，但集體土地所有權及集體土地的使用權受到極大限制，而大部份地方政府及相關利益團體卻熱衷於以國家土地所有權及國有土地的使用權爲依託，以徵收權爲根據將大量集體土地徵收爲國有，壟斷土地一級市場，催生了土地財政，進一步固化了不公平的城鄉二元結構，造成了嚴重的社會問題。其據此主張未來中國內地土地制度改革的方向應該是“淡化所有權，強化使用權”，增強對於私人享有的土地使用權和房屋所有權的法律保護強度，並主張應該允許某些集體土地權利進入市場，讓農民真正能享有土地上之財產利益。

法學院院長懷效鋒教授主持講壇。澳門特區立法會孫同鵬顧問、鄭偉顧問，澳門特區檢察院米萬英助理檢察長、檢察長辦公室趙奕顧問、杜慧芳檢察官、梁文英檢察官，澳門特區政府行政法務司張少雄顧問，澳門法學協會會長李煥江大律師，法學院方泉助理院長等校外內嘉賓以及法學院的博士、碩士研究生和本科生參加了本場論壇，與報告人圍繞主題進行了熱烈的討論。

8.The 5th SHIZIMEN Master's Lecture: "The Legal Thinking of China's Land Reform"

Organizer:

Faculty of Law

Sponsor:

Macao Foundation

Date:

From 18/02/2011 to 18/02/2011

Venue:

Library Building N101 Hall

Summary :

This is the 5th SHIZIMEN Master's Lecture, sponsored by the Faculty of Law. Professor WANG Weiguo, the famous Chinese jurist, the President of China Research Institution of Banking law, the Vice President of China Research Institution of Civil Law, the current Dean of the School of Civil Law, Commercial Law & Economic Law of CUPL, gave a speech entitled "The Legal Thinking of China's Land Reform". Through the heated discussion of the real estate market and the problems of agriculture, countryside and farmers, Professor WANG noted that the basic framework of the current land system in the Mainland China is based on the principle of private use of public owned land and the two parallel tracks, namely the coexistence of state-owned land ownership and the collective land ownership, but collective land ownership and collective land-use right are placed on great restrictions. Most of the local governments and related interest groups are keen on to rely on the state-owned land ownership and state-owned land-use right, to expropriate the collective land ownership by eminent domain, and to have a monopoly of land primary market, which have given birth to the land public finance, have solidified the unfair urban-rural dual structure fatherly, and have caused a great of serious social problems. He argued that the direction of land reform in Mainland China in future should be toward weakening the ownership and strengthening the land-use right, enhancing the protection of the land-use right and ownership of house. He also claimed that some collective land rights should be allowed to be transacted in market and let farmers really enjoy the interests on land。

Professor HUAI Xiaofeng (the Dean of Faculty of Law) hosted the lecture, Legal Counsel SUN Tongpeng and ZHENG Wei from the Legislative Assembly of MSAR, Assistant Prosecutors General of the MSAR Mai Man Ieng, the Counsel of the Public Prosecutions Office ZHAO Yi, Prosecutor of the MSAR DU Huifang and Leong Man Ieng, the Counsel of The Secretariat for Administration and Justice ZHANG Shaoxiong, the President of Associação de Promoção Jurídica de Macau and Lawyer LEI Wun Kong, Associate Professor FANG Quan (the Assistant Dean of Faculty of Law) , the undergraduates and graduate students, and guests from and outside of the university attended the forum and engaged in a heated discussion.

9.十字門法學論壇——法律文化衝突現象與解釋

主辦機構：

澳門科技大學法學院

資／贊助機構：

澳門基金會

時間:

2011 年 3 月 14 日

地點：

澳門科技大學 N 座圖書館大樓 N317 演講廳

會議總結：

本次論壇爲法學院 2010-2011 學年第五場「十字門法學論壇」，主題爲“法律文化衝突現象與解釋”。法學院助理教授何志輝以中華法系文化和葡萄牙法律文化的交融爲基礎闡釋澳門法律文化，指出因其特殊的歷史形成因素而具有自己特色的包容性。2010 級博士生楊寬情從華人移民至國外生活遇到的語言暴力、肢體衝突、體罰子女等方面法律糾紛闡釋中華法律文化與西方法律文化的不同發展基因。

法學院張青波助理教授和黎曉平教授對報告進行點評。黎曉平教授特別強調從傳統和當下維度理解法律文化，指出每個研究者其實都是某種具體文化參與者，不同法律文化儘管有差異，但可溝通和理解。

法學院畢經緯講師主持論壇，懷效鋒院長、方泉助理院長、黃明健副教授以及院內外博士生、碩士生和本科生參加了論壇，圍繞本次論壇主題與報告人、評議人進行熱烈研討。

9.The 5th SHIZIMEN Law Forum for the 2010-2011 Academic Year："Law, Culture Conflict, and its Explanation"

Organizer:

Faculty of Law

Sponsor:

Macao Foundation

Date:

From 14/03/2011 to 14/03/2011

Venue:

Library Building N317 Lecture Room

Summary :

This is the 5th SHIZIMEN Law Forum for the 2010-2011 Academic Year, sponsored by the Faculty of Law, with its theme of "Law, Culture Conflict, and its Explanation". Assistant Professor HE Zhihui from the Faculty of Law interpreted the Macau legal culture based on the blend of Chinese and Portuguese legal culture and pointed out that it makes much of its own tolerance because of the special history. Ph.D Student 2010 YANG Kuanqing explained the different genes of Chinese and western legal culture from the disputes produced by language violence, physical clashes, and domestic corporal punishment etc. experienced by Chinese living abroad.

Assistant Professor ZHANG Qingbo and Professor LI Xiaoping from the Faculty of Law made their comments. Professor Li emphasized that we should understand the legal culture with reference to traditional and contemporary dimension, and pointed out that all researchers are really participants of some specific cultures and although there are differences, different legal cultures can be communicated and understood.

Lecturer BI Jingwei from the Faculty of Law hosted the forum. Professor HUAI Xiaofeng (the Dean of Faculty of Law), Associate Professor FANG Quan (the Assistant Dean of Faculty of Law) , Associate Professor HUANG Mingjian, the undergraduates and graduate students, and guests from and outside of the university attended the forum and engaged in a heated discussion.

10.十字門法學論壇——刑事司法中的自由裁量

主辦機構：

澳門科技大學法學院

資／贊助機構：

澳門基金會

時間:

2011 年 4 月 6 日

地點：

澳門科技大學 N 座圖書館大樓 N101 禮堂

會議總結：

本次論壇爲法學院 2010-2011 學年第六場「十字門法學論壇」，由澳門法學協進會協辦。澳門法學協進會會長李煥江大律師、法學院謝國欣講師和彭勃博士生圍繞“刑事司法中的自由裁量”這一主題進行報告。李煥江大律師梳理了自由心證制度的發展源流，從法院心證的理由說明、證據價值之衡量和刑事上訴原則等方面對自由心證制度在澳門刑事司法中的實踐及需要改進的空間進行評述。謝國欣講師從比較法角度分析了美國刑事司法中處理非法證據排除問題中的成本與收益衡平原則，認爲該原則在實踐中主觀性太強、不同性質的利益實際上難以真正比較。彭勃博士生主張在內地司法實踐中應當明確承認自由心證，並且應建立明確的規範制度。

澳門特別行政區檢察院郭少萍助理檢察長、深圳市中級人民法院肖黃鶴法官和澳門特別行政區初級法院刑事起訴法庭梁鳳明法官結合澳門和內地的刑事司法實踐，對報告人的報告進行點評。

法學院畢經緯講師主持論壇。澳門特別行政區檢察院黎裕豪檢察官、梁文英檢察官，法學院懷效鋒院長、方泉助理院長、趙琳琳助理教授，法學院博士和碩士生、本科生以及其他校內外嘉賓參加了論壇，圍繞本次論壇主題與報告人、評議人進行熱烈研討。

10.The 6th SHIZIMEN Law Forum for the 2010-2011 Academic Year："Judicial Discretion in the Criminal Justice"

Organizer:

Faculty of Law

Sponsor:

Macao Foundation

Date:

From 06/04/2011 to 06/04/2011

Venue:

Library Building N101 Hall

Summary :

This is the 6th SHIZIMEN Law Forum for the 2010-2011 Academic Year, sponsored by the Faculty of Law, cosponsored by Associação de Promoção Jurídica de Macau. Lawyer LEI Wun Kong, the President of Associação de Promoção Jurídica de Macau, Lecturer Kuo-hsing Hsieh and Ph.D Student PENG Bo, both from the Faculty of Law, gave their respective report under the theme of "Judicial Discretion in the Criminal Justice". Lawyer LEI Wun Kong described the origin and development of system of judicial discretion and assessed its application and reform in Macau based on the explanation of the obligation of a court is to publish reasons for its decision, the value of balance of evidence and the criminal appeal process. Lecturer Kuo-hsing Hsieh evaluated the cost-benefit analysis used in the U.S. criminal justice system and conclude that it is too subjective and it's really hard to balance interests of different natures. Ph.D Student PENG Bo claimed that judicial discretion should be recognized explicitly in the Mainland China and the clear-cut system should be established.

Assistant Prosecutors General of the MSAR Kok Sio Peng, Judge of Shenzhen Intermediate People's Court XIAO Huanghe and Judge of Macau's Court of First Instance Leong Fong Meng commented on the reports drawing on the judicial experiences of Macau and the Mainland China.

Lecturer BI Jingwei from the Faculty of Law hosted the forum. Prosecutor of the MSAR Lai U Hou and Leong Man Ieng, Professor HUAI Xiaofeng (the Dean of Faculty of Law), Associate Professor FANG Quan (the Assistant Dean of Faculty of Law), Assistant Professor ZHAO Linlin, the undergraduates and graduate students, and guests from and outside of the university attended the forum and engaged in a heated discussion.

11.十字門法學論壇——公司控制權爭奪問題與法律對策

主辦機構：

澳門科技大學法學院

資／贊助機構：

澳門基金會

時間:

2011 年 5 月 13 日

地點：

澳門科技大學 N 座圖書館大樓 N317 演講廳

會議總結：

本次論壇爲法學院 2010 -2011 學年第七場「十字門法學論壇」，澳門特區法改辦法律專家、澳門大學法學院兼職講師劉耀強先生，暨南大學珠海校區鐘瑞棟副教授，法學院博士生張宗卿同學以及澳門大學法學院研究生熊暢同學圍繞“公司控制權爭奪問題與法律對策”這一主題分別進行報告。劉耀強先生針對澳門商法典的修改情況尤其是關於公司控制權的部分對大家做了詳細的介紹和說明。鐘瑞棟副教授從公司控制權的概念以及其與法人本質理論等方面入手對公司控制權的基本理論進行了闡述和分析。張宗卿博士生則是從股東表決權的角度對公司控制權爭奪及法律對策進行了剖析，認爲表決權是控制權爭奪的核心點，並對表決權的完善方法發表了自己的意見。熊暢研究生以中小股東權益的保護爲基本立場，認爲應建立以扶持中小股東參與公司經營管理爲主、遏制大股東濫用公司控制權爲輔的法律保障體系。

澳門科技大學行政與管理學院劉成昆副教授和法學院沈雲樵助理教授分別從經濟學和法學兩個視角對報告人的報告進行了精彩點評。

法學院畢經緯講師主持論壇，法學院懷效鋒院長、方泉助理院長、張清波助理教授、法學院博士和碩士生、本科生以及其他校內外嘉賓參加了論壇。

11.The 7th SHIZIMEN Law Forum for the 2010-2011 Academic Year :"The Problems of Corporate Control Contests and its Legal Solution"

Organizer:

Faculty of Law

Sponsor:

Macao Foundation

Date:

From 13/05/2011 to 13/05/2011

Venue:

Library Building N317 Lecture Room

Summary :

This is the 7th SHIZIMEN Law Forum for the 2010-2011 Academic Year, sponsored by the Faculty of Law. The expert of the Office of Law Reform and the part-time Lecturer of Faculty of Law of University of Macau Lau Io Keong, Associate Professor of Jinan University Zhuhai Campus, Ph.D Student from the Faculty of Law ZHANG Zongqing and Graduate Student from Faculty of Law of University of Macau XIONG Chang, gave their respective report under the theme of "The Problems of Corporate Control Contests and its Legal Solution". Mr. Lau Io Keong made a detailed description and explanation of revision of the Macau Commercial Law especially on the part of corporate control matters. Associate Professor ZHONG Ruidong analysed the fundamental theory of corporate control from the concept of corporate control and its relationship with the nature of legal person. Ph.D Student ZHANG Zongqing argued that shareholder's voting right is at the heart of corporate control contest and delivered his own opinion on how the to improve the system of voting right. Graduate Student XIONG Chang stood in the position of small- and medium-scale investors, argued for a legal system emphasizing the support for higher level of participation in corporation governance by small- and medium-scale investors as well as restraining the abuse of control rights of majority shareholders.

Associate Professor from the Faculty of Management and Administration LIU Chengkun and Assistant Professor SHEN Yunqiao shared their wonderful comments respectively from the perspectives of economics and law.

Lecturer BI Jingwei from the Faculty of Law hosted the forum. Professor HUAI Xiaofeng (the Dean of Faculty of Law), Associate Professor FANG Quan (the Assistant Dean of Faculty of Law) , Assistant Professor ZHANG Qingbo, the undergraduates and graduate students, and guests from and outside of the university attended the forum.

12.十字門法學論壇——跨域民商事司法合作經驗與借鑒

主辦機構:

澳門科技大學法學院

資／贊助機構：

澳門基金會

時間:

2011 年 10 月 14 日

地點:

澳門科技大學 N 座圖書館大樓 N320 演講廳

會議總結：

本次論壇爲法學院 2011-2012 學年第一場「十字門法學論壇」,主題爲"跨域民商事司法合作經驗與借鑒"。澳門大學法學院塗廣建副教授在題爲《我國的區際私法問題及歐美經驗的借鑒》的報告中指出，目前大中華區內的跨域民商事司法合作遠遠不能滿足實踐需要，內地與澳門、內地與香港雖然分別簽訂有若干司法合作安排，但均屬雙邊安排而非多邊安排，且合作範圍相對狹窄。雖然內地和港澳同屬一國，但民商事司法合作的廣度和深度卻遠不如由主權國家組成歐盟。塗廣建副教授宣導內地港澳三地之間應首先共同組建跨域研究團體，學習歐盟協調成員國之間以及美國協調各州之間民商事司法合作經驗，在憲法第 31 條、澳門基本法第 93 條和香港基本法第 95 條的架構下創造性地提出多邊跨域民商事司法合作法律方案。費蘭芳講師在題爲《國際商事仲裁中的國家豁免——以美國 FG 公司訴剛果（金）案爲例》的報告中詳述了香港終審法院今年審理終結的美國 FG 公司訴剛果（金）案的來龍去脈，並重點分析了該案涉及的國際商事仲裁裁決承認與執行中涉及的國家豁免問題。費蘭芳講師以中國的國際法實踐、中國簽署的《聯合國國家及其財產管轄豁免公約》以及國際商事仲裁實踐等爲根據，主張應當採行主權限制豁免制度、放棄絕對豁免制度。

謝耿亮助理教授主持論壇，易在成助理教授進行精彩點評，懷效鋒院長、方泉助理院長及法學院其他師生出席了本次論壇。

12.The 1st SHIZIMEN Law Forum for the 2011-2012 Academic Year: "The Practice of Judicial Cooperation in Cross-border Civil and Commercial Matters and its Inspiration"

Organizer:

Faculty of Law

Sponsor:

Macao Foundation

Date:

From 14/10/2011 to 14/10/2011

Venue:

Library Building N320 Lecture Room

Summary:

This is the 1st SHIZIMEN Law Forum for the 2011-2012 Academic Year, sponsored by the Faculty of Law, with its theme of "The Practice of Judicial Cooperation in Cross-border Civil and Commercial Matters and its Inspiration". Associate Professor TU Guangjian from the Faculty of Law of University of Macau noted in his report entitled "The Problems of International Private Law in China and the Borrowing Experience of Europe and U.S.A" that there has been only some regional cooperation agreements which are bilateral and not multilateral, confined to relatively narrow scopes, and are far from meeting the practical needs. Although the Mainland, Hong Kong and Macau all belong to one country, but the breadth and depth of judicial cooperation in cross-border civil and commercial matters is not a patch on that in European Union which consists of sovereign states. Associate Professor TU proposed that the three districts set up a cross-border research group at first, study the experiences of the EU and U.S.A, and then create a plan of multilateral judicial cooperation in civil and commercial matters under the Article 31 of the Constitution of P.R.C, the Article 93 of Macau Basic Law and the Article 95 of Hong Kong Basic Law.

Lecturer FEI Lanfang from the Faculty of Law delivered a speech entitled "State Immunity in International Commercial Arbitration—Take the case of FG Hemisphere Associates LLC v Democratic Republic of the Congo & Ors as Example". Lecturer FEI described the details of this case and analysed the state immunity problem involved in the recognition and enforcement of international commercial arbitration award. Then she claimed that restrictive state immunity should be established and absolute immunity be given away, due to the international law practice of China, United Nations Convention on Jurisdictional Immunities of States and Their Property which has been signed by China and the practice of international arbitration.

Assistant Professor XIE Gengliang from the Faculty of Law hosted the forum, Assistant Professor YI Zaicheng from the Faculty of Law made a wonderful comment, Professor HUAI Xiaofeng (the Dean of Faculty of Law), Associate Professor FANG Quan (the Assistant Dean of Faculty of Law) , the undergraduates and graduate students, and guests from and outside of the university attended the forum.

13.十字門法學論壇——合同自由與管制

主辦機構：

澳門科技大學法學院

資／贊助機構：

澳門基金會

時間:

2011 年 10 月 25 日

地點：

澳門科技大學 N 座圖書館大樓 N213 演講廳

會議總結：

本次論壇爲法學院 2011-2012 學年第二場「十字門法學論壇」，主題爲“合同自由與管制”。湖南大學法學院許中緣副教授在題爲《論違反公法規定對法律行爲效力影響》的報告中指出：公法不能直接進入私法，公法對私法的進入只能借助轉介規範，並對私法中體現的公法規範進行了類型化的分析並分別指出了其不同的意義。清華大學法學院耿林副教授在題爲《物權法中的合同自由》的報告中強調強制性規範與立法目的密不可分，法律解釋在強制性規範的識別中起重要作用。暨南大學珠海校區鐘瑞棟副教授在題爲《中國民法中的公共利益》的報告中在提出“中國民法中是否有一個統一的公共利益概念”問題後，對民法各不同領域中公共利益的定位和理解進行了闡釋。

畢經緯講師主持論壇，黃明健副教授、葉再興助理教授隨後進行精彩點評。方泉助理院長及法學院其他師生出席了本次論壇。與會老師、同學圍繞公法與私法的關係、法律規範之目的性解釋等問題進行討論。

2011-2012學年澳門科技大學法學院

13.The 2nd SHIZIMEN Law Forum for the 2011-2012 Academic Year: "Freedom of Contract and Contract Regulation"

Organizer:

Faculty of Law, Macau University of Science and Technology

Sponsor:

Macao Foundation

Date:

From 25/10/2011 to 25/10/2011

Venue:

Library Building N213 Lecture Room

Summary:

This is the 2nd SHIZIMEN Law Forum for the 2011-2012 Academic Year, sponsored by the Faculty of Law, with its theme of "Freedom of Contract and Contract Regulation". Associate Professor XU Zhongyuan from School of Law of Hunan University pointed out in his report "Violation of Public Law and its Effect on the Validity of Juristic Act" that public law cannot entered directly into the sphere of private law and it only can do this with the medium of switching rule. He also distinguished several types of rules of public law and gave them different meaning accordingly. Associate Professor GENG Lin from School of Law of Tsinghua University entitled his report "Freedom of Contract in Real Property Law" which stressed that the mandatory norms and the purpose of legislation are inseparable, and interpretation of law plays an important role in the characterization in mandatory norms. Associate Professor ZHONG Ruidong from Jinan University Zhuhai Campus gave his report entitled "Public Interest in China's Civil Law", in which he put forward the question of "is there a unified concept of public interest in China's civil law" and then expounded the definitions of public interest in different fields of civil law.

Lecturer BI Jingwei from the Faculty of Law hosted the forum, Associate Professor HUANG Mingjian and Assistant Professor YE Zaixing, both from the Faculty of Law, made their wonderful comments accordingly. Associate Professor FANG Quan (the Assistant Dean of Faculty of Law) , the undergraduates and graduate students, and guests from and outside of the university attended the forum and engaged in a heated discussion around topics about the relationship between public law and private law, the purposive interpretation of law etc.

14.十字門名家講壇——法律人與新中國的法制建設

主辦機構：

澳門科技大學法學院

資／贊助機構：

澳門基金會

時間:

2011 年 11 月 18 日

地點：

澳門科技大學 N 座圖書館大樓 N211 演講廳

會議總結：

本次學術講座爲法學院主辦之第六場「十字門名家講壇」,中國著名法學家、全國外國法制史研究會會長、華東政法大學校長何勤華教授做題爲做題爲「法律人與新中國的法制建設」的主題報告。何勤華教授指出，在新中國成立後前 30 年的時間裏，經歷反右、文革等七次重大事件，法律虛無主義蔓延，法律人經歷坎坷，法制建設屢遭破壞。從 1978 年後的 30 多年來，法律人才重獲新生，法制建設開始走上正軌，期間 1978 年中國共產黨十一屆三中全會終結全面的“法律虛無主義”狀態，1980-81 年對林彪、江青集團成員的審判實際上宣告政治統治行爲必須受制於實證法和政策之上的高級法的限制和 1997 年首次提出社會主義法治國家目標和戰略這三大事件最具有正面影響力。從這十大事件中，何勤華教授總結說一定不能忘記法律的繼承性、法律發展的規律性、中國的國情以及一定不能輕視和蔑視法律等四大經驗教訓。

法學院院長懷效鋒教授主持講壇，法學院方泉助理院長、黎曉平教授及上百名法學院師生出席了本次活動。

十字門名家講壇 第六場
法律人與新中國的法制建設
主講：何勤華 教授
地點：澳門科技大學N211室
日期：2011年11月18日
贊助：澳門基金會

14.The 6th SHIZIMEN Master's Lecture: "The Lawyers and the Development of China's Legal System"

Organizer:

Faculty of Law, Macau University of Science and Technology

Sponsor:

Macao Foundation

Date:

From 18/11/2011 to 18/11/2011

Venue:

Library Building N211 Lecture Room

Summary:

This is the 6th SHIZIMEN Master's Lecture, sponsored by the Faculty of Law. Professor HE Qinhua, the famous Chinese jurist, the current President of East China University of Political Science and Law (ECUPL), the President of the Research Institution of Foreign Legal History, delivered a report entitled "The Lawyers and the Development of China's Legal System". In the report, Professor HE noted that in the first 30 years after the founding of the P.R.C., China had experienced the movement of anti-rightist, the Cultural Revolution and five other significant events, which led to the spread of legal nihilism, the great suffering of lawyers and the significant damage of legal system. In the second 30 years since 1978, China's lawyers have been regaining their new lives and the development of law started on the right track. The three major events that happened in this period had the most positive effects, namely, the Third Plenary Session of the 11th CPC Central Committee held in 1978 representing the end of comprehensive legal nihilism, the Supreme Court trial of Lin Biao and Jiang Qing counter-revolutionary group principals from 1981-1982 in fact declaring that the ruling act should be subject to the higher law above the positive law and policy, and in 1996 "building a socialist country under the rule of law" was first put forward as basic strategy and an important goal. Professor HE concluded that we should learn four lessons from the 10 major events, that we must not forget the consistency in law, the "law" of legal development, the China's actual conditions and we must not despise or dishonor the law.

Professor HUAI Xiaofeng (the Dean of Faculty of Law) hosted the lecture, Associate Professor FANG Quan (the Assistant Dean of Faculty of Law) , Professor LI Xiaoping, and the undergraduates and graduate students, and guests from and outside of the university attended the activity.

15.十字門法學論壇——網絡作品共用與知識產權保護

主辦機構：

澳門科技大學法學院

資／贊助機構：

澳門基金會

時間:

2011 年 12 月 9 日

地點：

澳門科技大學 N 座圖書館大樓 N317 演講廳

會議總結：

本次論壇爲法學院 2011-2012 學年第三場「十字門法學論壇」，主題爲“網路作品共用與知識產權保護”。法學院助理教授、澳門創意共用專案（CC Macau）成員沈雲樵在報告中就創意共用文本本地化過程中的法律問題提出看法，認爲在本地化過程中應當最大程度尊重澳門本地法律。澳門維基媒體協會周志堅會長從維琪等網站的飛速發展指出，知識共用是未來發展的必然趨勢，是創意無限的基本前提。澳門漫畫從業員協會黃天俊會長就本澳及內地漫畫界發生的著名侵權事件進行分析，指出對於網路作品的保護還遠遠不夠。

評議人深圳大學法學院朱謝群教授認爲，在目前對著作權保護遠遠不夠的前提下，共用可能是無法實現的理想；對協定文本在本地化時對本地法律的真正尊重並不是將協議中的作品範圍擴大至本澳法律所及的範圍，而是應將協議保留在原有範圍內。另一位評議人法學院易在成助理教授則認爲，創意共用與著作權保護之間並不對立衝突，協定爲作者對作品的使用提供了更加彈性開放的選項。

論壇由澳門科技大學人文藝術學院汪藍副教授主持。深圳大學法學院彭勃教授、澳門文化局文化創意產業促進廳鄺春媚高級技術員、澳門生產力暨科技轉移中心林濤經理、法學院方泉副教授和湯曦小姐、通識教育部盧曉平講師和汪誠芳講師及法學院師生出席了本次論壇，就網路作品的使用和保護多方交流意見，期冀助力本澳文化創意產業的發展和著作權法律制度的完善，並爲兩岸四地以及澳葡文化創意產業的互動共進發揮作用。

15.The 3rd SHIZIMEN Law Forum for the 2011-2012 Academic Year:"Internet File-Sharing of Copyright-Protected Works and IP Protection"

Organizer:

Faculty of Law

Sponsor:

Macao Foundation

Date:

From 9/12/2011 to 9/12/2011

Venue:

Venue: Library Building N317 Lecture Room

Summary :

This is the 3rd SHIZIMEN Law Forum for the 2011-2012 Academic Year, sponsored by the Faculty of Law, with its theme of "Internet File-Sharing of Copyright-Protected Works and IP Protection". Assistant Professor SHEN Yunqiao from the Faculty of Law and the member of Creative Commons Macau (CC Macau), delivered his opinion on the legal problems generating from the localization of CC licenses and claimed that the local Macau law should be respected to the uttermost in the process. Mr. Zhou Zhijian, Chairman of Wikimedia Macau Association made a speech that with the rapid development of websites such as Wikipedia, knowledge sharing is the inevitable trend of future and is the basic premise of infinite originality. HUANG TianJun, President of Macau Comickers Association, through the analysis the famous tort cases in the Macau and Mainland's cartoon and comics community, pointed out that the protection for works on internet is far from enough.

One of the reviewer, Professor ZHU Xiequn from School of Law of Shenzhen University argued that given the current very lack of protection of copyright, co-sharing may be an ideal which cannot be realized; to respect to the local law in the localization of CC licenses is not to expand the scope of works protected to equal that of Macau law, but to let them remain in the original scope. The other reviewer, Assistant Professor YI Zaicheng from the Faculty of Law, believed that Creative Commons is not in contradiction with copyright protection, the CC licenses provide authors with more flexible options for using protected works.

Associate Professor WANG Lan from the Faculty of Humanities and Arts hosted the forum. Professor PENG Bo from School of Law of Shenzhen University, Senior Technician KUANG Chunmei from the Department for the Promotion of Cultural and Creative Industries of Cultural Affairs Bureau, Manager LIN Tao from Macau Productivity and Technology Transfer Centre, Associate Professor FANG Quan (the Assistant Dean of Faculty of Law) , Ms. TANG Xi from Faculty of Law, Lecturer LU Xiaoping and Lecturer WANG Chengfang, both from Department of General Education, and students of Faculty of Law attended the forum.

完成的研究項目

Research Projects

1.基於 IPv6 的移動通訊技術研究

負責人：鄭澤峰、蔡智明
澳門科技大學 資訊科技學院

資助機構：
澳門科學技術發展基金
完成時間(年／月):
2011 年 6 月

主要參加者：
鄭澤峰、蔡智明、李建慶、尤眾、吳建平

課題簡介：

本科研項目的主要任務，是針對下一代互聯網協議 IPv6 的無線網絡中移動通訊的關鍵技術進行研究。研究內容包括設計和開發符合 Mobile IPv6 標準的通訊協議，以及對移動通訊系統中移動管理的主要算法提出優化方案，從而改進移動通訊的性能。

研究成果包括：提出了使用過濾技術來實現基於 Mobile IPv6 標準的移動通訊協議，此方法有效減低了移動通訊協議在設計和開發上的複雜性。原理是在原本只具非移動功能的 IPv6 通訊協議棧下，增添一個過濾驅動的協議層，對發送和接收的網絡數據包的結構和內容進行修改，從而達到添加 Mobile IPv6 移動通訊功能的目的。

在移動通訊的位置管理方面，提出了協作式的定位算法，以提高移動用戶位置檢測的準確性。此算法讓移動終端除了使用固定參考點之間的測量值來定位外，還使用了相鄰移動終端之間的測量信息來提高定位的精度。

在移動通訊的網絡切換管理方面，提出了適用於 Mobile IPv6 標準的移動通訊協議的軟切換優化方案，通過使用軟切換技術有效減少網絡切換的時延和數據丟失，改善了移動通訊系統中實時通訊的性能。

1.Research on the IPv6-based mobile communication technologies

Principal Investigator: Cheang, Chak Fong; Cai, ZhiMing

Faculty of Information Technology, Macau University of Science and Technology

Sponsor:

Science and Technology Development Fund, MSAR

Completion period (Y/M):

2011/6

Main Participants:

Cheang Chak Fong, Cai Zhi Ming, Li Jian Qing, You Zhong, Wu Jian Ping

Introduction:

The objective of this project is to conduct the researches on the key technologies of mobile communications in the wireless networks using next generation Internet protocol, IPv6. The tasks include the design and the implementation of IPv6-based mobile communication protocols, and proposing the solutions on the algorithms of mobility management to improve the communication performance in the mobile communication system.

The main contributions include the follows:

A solution of implementing the Mobile IPv6-based mobile communication protocol is proposed, which uses the filtering technology to effectively simplify the design and the development of the protocol. For the purpose of enabling the capacity of Mobile IPv6 communication, a protocol layer that existed in the form of a filter driver is inserted below the original non-mobile IPv6 protocol stack to modify the structures and the contents of the sending and receiving packets.

For the location management, a cooperative localization algorithm is proposed. It improves the accuracy of location estimation for the mobile users by allowing the mobile node to use the positioning information between the neighboring mobile nodes, in addition to the positioning information from the fixed reference points.

For the handoff management, a soft handoff solution for the Mobile IPv6-based mobile communication protocol is proposed. It can effectively reduce the handoff delay and packet loss during the network handoff by using the soft handoff technologies, thus it improves the performance of the real-time communication in the mobile communication system.

2.巨量數據處理的新演算法及應用研究

負責人：齊東旭
澳門科技大學 資訊科技學院

資助機構：

科學技術發展基金

完成時間(年／月):

2010 年 10 月

主要參加者：

齊東旭教授、胡世民教授、宋瑞霞教授、鄒建成教授、孫偉教授、余建德博士、梁延研博士、博士生李堅、博士生陳偉

課題簡介：

研究背景：數字信號的特徵提取，是資訊處理中的具有重大應用價值的問題。它對感興趣的對象、目標（遙感，醫學，地貌等）的分析歸納、判別檢索，將能快速準確提供決策依據。

主要研究內容：研究區間及高維空間（特別著重2維及三維空間）上基函數的顯示表達，不僅在張量積的情形，更在三角域的重要而複雜的情形，給出有效的數學公式， 從而實現有效的數字特徵提取。

取得的重要結果：

1. 建立與完善了三角域上完備正交U、V-系統的理論， 這是對複雜的三維幾何對象群體對象做整體表達的基礎，是此前未見的創新結果；

2. 初步建立V-系統及應用的數據處理平臺，它爲處理巨量數據提供了有力的保證，這是全新的實驗平臺。

完成專著《非連續正交函數：U-系統、V-系統、多小波及應用》，科學出版社，獲得中國科學院出版基金資助。

關鍵資料：發表學術論文 29 篇。其中期刊論文 9 篇，SCI 收錄 4 篇及 EI 收錄 22 篇。

完成四個演算法工具箱：（1）離散正交 U、V 變換工具箱；（2）三角域 U、V 變換工具箱；（3）大規模的基於三角面片的幾何模型分解與重構演算法工具箱；（4）圖像非均勻剖分及應用演算法工具箱。

科學意義：

1. U-系統與 V-系統是處理強間斷信號的有效數學工具；用於具有間斷性的信號，U-系統與 V-系統明顯優於現有其他方法。在 CAGD 中，Fourier 方法是完全不能應用的！而用 U-系統與 V-系統則不出現 Gibbs 現象，這是有非常重要意義的貢獻。

2. U-系統與V-系統作爲一類多小波，並推廣到三角域上, 得到明確簡易的表達式（一般做不到）。

3. 對間斷信號， U-系統與V-系統能夠消除Gibbs現象的影響（一般做不到）。

4. 對幾何造型群組對象， U-系統與V-系統具有再生性，因而能夠精確重構原來對象（一般只能做到單體，而不能對群組做精確表達）。

5. 對數字圖像處理， 在非均勻剖分之下，探索成功高效的處理新途徑，特別在數字圖像資訊隱藏及資訊偽裝上，提出一種全新的演算法一般做不這麼好）。

2.Massive Data Processing and its Application

Principal Investigator: Qi, DongXu

Faculty of Information Technology, Macau University of Science and Technology

Sponsor:

Science and Technology Development Fund, MSAR

Completion period (Y/M):

2010/10

Main Participants:

Prof. DongXu Qi, Prof. ShiMin Hu, Prof. RuiXia Song, Prof. JianCheng Zou, Prof. Wei Sun, Dr. JianDe Yu, Dr. YanYan Liang, Jian Li(PhD candidate), Wei Chen (PhD candidate)

Introduction:

Background:

The concept of digital data features extraction is very important for data processing. It can help us to retrieve, analyze and identify the information from a massive data set (remote sensing, medical, geomorphology, etc.) efficiently.

Contents:

This research focus on how to construct the base functions on interval and high dimensions (especially on 2D and 3D). The base functions have been constructed not only in tensor product form but on triangular domain.

Research achievements:

Establish and improve the theory of Triangular U, V-system. This is the novel result on representation 3D objects group in unified expression.

Establish the data processing platform of V-system, this all new platform provides the ability to process massive data.

Scholarly Treatise : “Discontinuous orthogonal function: U-system, V-system, Multiwavelet and applications”, Beijing: Science Press, 2011. This book is supported by Publication Fund of Chinese Academy of Science

Critical Outcomes: 29 academic theses have been published, this includes 9 journal articles (4 papers are collected in SCI and 9 in EI).

Four algorithm toolboxes:

(1) U-system and V-system Discrete Orthogonal Transformation toolboxes;

(2) U-system and V-system Transformation toolboxes on triangular domain;

(3) Decomposition and reconstruction algorithm toolbox for mass geometric model

(4) Image Non-Uniform Subdivision and Application algorithm toolbox.

scientific significances:

1. U-system and V-system are the effective mathematical tools for dealing with strong discontinuous signals. And they have distinct advantages over other existing methods. In area of CAGD, Fourier

method can't be used because of the Gibbs Phenomenon, but this will not occurs under the U-system or V-system.

2. As a class of Multiwavelet, and have been generalized on Triangle, U-system and V-system both have the explicit and simple expressions.(generally cannot)

3. U-system and V-system can eliminate the influence due to Gibbs Phenomenon for the discontinuous signals. (generally cannot)

4. Based on the U-system and V-system, we can reconstruct a group of geometrical models precisely.(generally only can realize on single object, and not on group)

5.In area of digital image processing, we find out a number of effective new methods successfully based on the Non-uniform subdivision, especially in the digital image information hiding and steganography.

3.求解複雜優化問題的新型演化計算平臺研究

負責人：梁勇
澳門科技大學 資訊科技學院

資助機構：

科學技術發展基金

完成時間(年／月):

2011 年 2 月

主要參加者：

張海

課題簡介：

本專案針對求解多種不同類型的複雜優化問題構建實用高效的自適應演化計算平臺，基於本人已提出的求解靜態無噪音多極值優化問題的自適應精英制遺傳演算法，深入研究演化平行計算技術中的關鍵問題。項目的重點在於對有噪音、動態環境下和多目標等優化問題的自適應演化策略設計和理論研究方面。

該專案所取得的成果形成了具有實際應用價值的求解複雜優化問題新方案，並在理論上探索一類有效的演化計算並行機制。

研究專案要點：

1) 完成求解動態複雜優化問題變數表達形式, 雜交運算元, 變異運算元的研究；

2) 完成求解動態複雜優化問題演化計算中即時跟蹤最優值遷移的技術和新個體初始化問題研究；

3) 建立求解動態複雜優化問題的新型遺傳演算法（GA）、新型粒子群演算法（PSO）、和新型微分進化演算法（DE）；

4) 嘗試對我們提出的癌症化療給藥方案優化模型，這一典型複雜優化問題進行求解，得到令人滿意的結果。

3.A novel evolutionary computation framework for complex optimization problems

Principal Investigator: Liang, Yong

Faculty of Information Technology, Macau University of Science and Technology

Sponsor:

Science and Technology Development Fund, MSAR

Completion period (Y/M):

2011/2

Main Participants:

Zhang Hai

Introduction:

Genetic algorithms (GAs) have been proven useful in solving a variety of search and optimization problems. Exploring multiple solutions in the multimodal optimization is very important because the optimization problems in real-world often need to locate the multiple optima in the search space. Over the years, various population diversity mechanisms have been proposed that enable GAs to maintain a diverse population of individuals throughout its search to identify multiple optima in the multimodal domain. However, none of them has demonstrated to be as efficient as we expected. In this project, we have proposed a new framework of adaptive elitist-population based genetic algorithm (AEGA) to search for all multiple optima. All the results of the experiments have demonstrated that the AEGA consistently and significantly outperforms the other multimodal evolutionary algorithms in efficiency and solution quality, particularly with efficiency speed-up of many orders. It indicates that the AEGA is very promising in real-word applications. As a case study, we have proposed a new automatic model of drug scheduling optimization for cancer chemotherapy. The results obtained match well with the clinical treatment experience, and can provide much more realistic solutions than that of the existing models. In this project, we also have extended and generalize the AEGA for different complex multimodal optimization problems. We have build a new dynamic model for the simulation of multi-drug chemotherapy for cancers from clinical data collected and use our new AEGA to optimize and predict efficient multi-drug administration scheduling policies for clinical treatments.

In the project we have done:

i. Perform an in-depth study on the new generalized AEGA (GAEGA) paradigm.
ii. Develop the GAEGA with new adaptive parameter and population control strategies so that it can solve the multimodal optimization problems in noisy and dynamic (time-varying) environments.
iii. Extend our modified drug scheduling model to simulate the real data of clinic trials;
iv. Construct a new model for a multi-drug scheduling of cancer chemotherapy; Automating the multi-drug scheduling optimization of cancer chemotherapy via GA

4.信息隱藏技術與算法的研究與實現

負責人：田小林
澳門科技大學 資訊科技學院

資助機構：

科學技術發展基金

完成時間(年／月)：

2011 年 9 月

主要參加者：

胡猛越、秦鉞、張力、莊楚鐘、蔡鵬、鄒陽、馮潇、沈晨、夏紹瑋

課題簡介：

本項目研究信息安全領域的新技術-信息隱藏技術與算法的研究與實現。與傳統的以密碼學爲核心的信息安全技術僅僅保護信息內容相比，信息安全領域的新技術，信息隱藏技術，在保護機密信息內容的同時也隱藏了機密信息存在的事實。信息隱藏（僞裝）技術將秘密信息隱藏於另一非機密信息（載體）之中，比傳統的以密碼學爲核心的信息安全技術具有更優的性質。作爲信息安全領域的一種新技術，信息隱藏技術和算法已成爲目前計算機及資訊科技領域的研究熱點之一。

本項目共資助碩士 6 名、學士 6 名發表論文 15 篇（期刊論文 5 篇：全國性核心刊物 4 篇，澳科大學報 1 篇；EI/ISTP 檢索之國際性會議論文 10 篇）。其中“抗幾何攻擊圖像零水印系統的設計與實現 ”代表澳門高校參加 2010 泛珠三角安利杯大學生計算機作品賽，獲銀獎; “A Novel Digital Zero-watermarking System for Image Geometric Calibration”代表澳科大參加澳門 IEEE Project Competition 2010，獲季軍。

4.Research & Implementation of Information Hiding Technology and Algorithms

Principal Investigator: Tian, Xiaolin
Faculty of Information Technology, Macau University of Science and Technology

Sponsor:

Science and Technology Development Fund, MSAR

Completion period (Y/M):

2011/9

Main Participants:

Mengyue Hu, Yue Qin, Zhang li, Zhuang chuzhong, Cai Peng, Zou Yang, Feng xiao, Shen Chen, Shaowei Xia

Introduction:

The project was working on the area of information hiding, which is a new research hot point in the IT area due to its better properties to protect information and copyright. The project has supported 6 Masters and 6 Bachelors to publish their research results as 15 academic papers, in which there are 5 journal papers(4 in Chinese core Journals and 1 in Journal of Macau University of Science and Technology), and 10 EI/ISTP indexed international conference papers. Among these results, the "Design and implementation of a novel anti-geometric-attacking zero-watermarking system" has won the Silver Prize in the 2010 Amway Pan-Pearl River Delta Region Universities IT Project Competition, and the "A Novel Digital Zero-watermarking System for Image Geometric Calibration" to represent MUST has won the second runner-up prize in Macao IEEE Project Competition 2010.

5.澳門企業員工職業價值觀演變及其對博彩業的啓示

負責人：聶婷
澳門科技大學 行政與管理學院

資助機構：

澳門基金會

完成時間(年／月)：

2010 年 12 月

主要參加者：

聶婷、石永東

課題簡介：

澳門由於歷史原因形成了中西方交融的文化特徵，而葡萄牙統治、澳門回歸、賭權開放、金融危機等一系列歷史事件的發生也在澳門人成長的過程中留有深刻的烙印，這些對澳門人職業價值觀的形成也都會產生深刻影響，使得澳門每一個代際群體的職業價值觀展現顯著差別，進而在職業探索行爲、職場表現等方面也都體現出顯著差異。通過對澳門企業員工職業價值觀的調查，我們可以對比澳門社會每一個代際群體職業價值觀的差異，預測其職場表現，本研究還將結合博彩業的行業特徵進行分析，尋求更爲適合的措施促進每一個代際群體的職業生涯發展，採用更爲有效的激勵手段提高其工作績效和工作滿意度。

5.The Study on Employee Work Value in Macau and Implications to Gambling Industry

Principal Investigator: Nie, Ting
Faculty of Management and Administration, Macau University of Science and Technology

Sponsor:
Macao Fundation
Completion period (Y/M):
2010/12

Main Participants:
Nie Ting, Shi Yongdong

Introduction:

The study is a extend research of "the Study on Career Development Strategy of Macau Young Employees in Gambling Industry" sponsored by Macau Foundation 2008. On the basis of life course theory in population sociology and career development theory in human resource management, the research discusses the work value difference among the four cohorts in the workplace of Macau. Some implications will be proposed to promote the job satisfaction and performance of Macau gambling industry employees.

6.基於減排考量的澳門免費巴士優化運營研究

負責人：唐華軍
澳門科技大學 行政與管理學院

資助機構：

澳門基金會

完成時間(年／月)：

2010 年 08 月 31 日

主要參加者：

龐川、衣方磊、徐新龍、Eugene Levner（以色列）、吳軍

課題簡介：

本項目旨在通過優化澳門免費巴士的運營，來控制免費巴士的保有量和改善澳門的交通擁堵狀況，同時進一步控制車輛尾氣的排放。首先，通過實地調研獲取免費巴士的保有量、運行路線和服務時間，並對本澳免費巴士的污染物排放程度做科學的量化分析，進而評估免費巴士運營對本澳減排環保的具體影響，然後運用車輛調度理論與方法制定出一套符合澳門實際的免費巴士優化運營方案，在保持原有客戶服務水準的前提下，使得優化後的免費巴士保有量盡可能達到最小，並在保有量控制的基礎上進一步評估優化運營後的巴士尾氣減排程度。

6.Study on the Optimal Operation of Free Shuttles Buses in Macau with Emission Reduction

Principal Investigator: Tang, Huajun
Faculty of Management and Administration University of Science and Technology

Sponsor:

Macao Foundation

Completion period (Y/M):

2011/12

Main Participants:

Chuan Pang, Fanglei Yi, Xinlong Xu, Eugene Levner (Israel), Jun Wu (Mainland)

Introduction:

In this project, we aim to control the population of free shuttle buses (FSB) in Macau, and reduce vehicle emission, by optimizing the operation of FSB. Firstly, we obtained the current population of FSB, the routes, and service time periods on the spot, analyzed the pollutions from FSB, and evaluated the effect on emission reduction. Then we built a series of mathematical models to optimize the operation of FSB with the current customer service level, so as to reduce the population and vehicle emission.

7.評估會展旅遊業對澳門經濟的影響及貢獻

負責人：陳艷
澳門科技大學 行政與管理學院

資助機構：

澳門基金會

完成時間(年／月)：

2011 年 8 月

主要參加者：

陳艷、李會敏、楊菁、李璽

課題簡介：

本研究報告從經濟拉動係數，投入產出的乘子分析，和產業關聯度等方面對會展產業予澳門整個經濟的影響以及產業結構的調整作用進行了階段性地評估。是輔助政府未來制訂會展產業扶持政策，進行資源優先分配，確定進一步發展方向的一個基本和重要的參考依據。

本研究首先以“第三屆品牌消費嘉年華”展銷會爲案例對澳門會展業的經濟拉動效應做實證研究。經濟拉動效應的實證研究結果表明，“澳門第三屆品牌消費嘉年華”展銷會對澳門本地經濟的拉動係數約爲 1:8.4，即會展業的直接收入與會展產業鏈上的其它相關行業，如酒店業，餐飲業等，因該會展開辦而帶來的總收入的比率約爲 1: 8.4。

相比 1: 8.4 的拉動係數，拉動係數的詳細計算過程，更能揭示澳門會展對本地經濟進行影響和貢獻的細節。總的來說，與德國漢諾威等先進的會展城市不同，澳門目前的會展多爲免費入場，沒有門票收入，導致會展業的直接收入低，即計算經濟拉動係數的基數小，所得的拉動係數易偏大，單純報告和解釋 1: 8.4 的拉動係數，容易誇大目前澳門會展的經濟拉動作用。

除此之外，我們看到無論是參展商還是參展觀眾，來自澳門區域之外的部分都相對小，如，“第三屆品牌消費嘉年華”展銷會只有約 20% 的參展商，約 15%的觀眾來自澳門以外的區域。會展之所以能夠拉動會展開辦城市經濟增長的原因之一，即是可以帶動本區域以外的人流和資金流進入本地區。由此可見，要發揮會展業的經濟拉動作用，澳門會展在區域之外的宣傳與組織的功能尚待增強。

同時，調查的結果也顯示，來澳門參加會展的外地觀眾很樂於在澳門進行購物消費和博彩娛樂。通常來講，進行購物消費和博彩娛樂的開支都較大，因此，這方面所帶來的經濟拉動作用較爲明顯。

之後，本研究基於投入產出分析法中的產出乘數，居民收入乘數和就業乘數，評估此次會展的開辦對拉動澳門經濟的總產出，全體居民的收入增加，以及增加全社會就業所帶來的整體貢獻。研究結果顯示，澳門“第三屆品牌消費嘉年華”展銷會爲澳門經濟共增加了 22,669,000 澳門元的總產出；增加了 4,854,000 澳門元的居民總收入；增加了相當於 20.4 個全職工作機會。

需要指出的是，儘管全球大部分國家和地區都有編制本地區的投入產出表，但澳門和香港地區目前尚沒有自己的投入產出表。國際數據庫（GTAP- Global Trade Analysis Project）中有關香港的投入產出分析，是從新加坡的投入產出表估計而來，其他有關大中華經濟地區或東亞經濟地

區眾多涉及投入產出數據的研究，只能把香港，澳門剔除，或用新加坡的相關統計進行估算。本研究亦是利用新加坡統計局編制的最新的 2005 年的投入產出表對澳門“第三屆品牌消費嘉年華”展銷會的經濟影響的乘數效應進行估計。

最後，本研究運用灰色關聯度法研究澳門的會展業與其他主要產業的關聯度。產業關聯度的計算顯示，澳門會展業對博彩業和零售業的拉動最爲明顯，而與旅遊業的產業關聯程度最低，對旅遊業的拉動最不明顯。由此可見，在澳門“世界旅遊休閒中心”的定位之下，在會展旅遊的細分市場上，還應充分利用其得天獨厚的歷史文化資源，爲會展特別打造和訂制適合的旅遊及休閒產品。

7.The economic impact of convention and tourist visitors on Macao

Principal Investigator: Chen, Yan

Faculty of Management and Administration, Macau University of Science and Technology

Sponsor:

Macao Foundation

Completion period (Y/M):

2011/08

Main Participants:

Chen Yan, Li Huiming, Yang Jing, Li Xi

Introduction:

The goal of this study is to assess the economic impacts of convention and its tourist visitors in Macao, including estimating the industry pull factor, direct economic impact and indirect economic impact, and the degree of industry correlation. Results of this study provide insights into strategies regarding allocating limited resources to convention industry future growth.

Based on the data collected from the convention, the 3rd Mega Sale Carnival held on July 15 to 17 in 2011, the pull-effect of convention industry in Macao is estimated. Result shows that the pull factor of this convention is about 1:8.4, which is close to the level of developed countries.

After that, the study uses the multiplier effect of an input-output model to estimate the economic impact of this convention in terms of output, income and employment. Study result shows that the total receipts during this convention added MOP$22,669,000 of output, increased a total of MOP$4,854,000 personal income to the residents, and created 20.4 full-time equivalent jobs.

At last, gray correlation analysis is used to analyze the pull-effort between convention and other related industries, such as sight-seeing and tourism, retail, food and beverage service, transport, and hotel. The lowest correlation between convention and tourism industry suggests that specialized trip plans developed for convention visitors are necessary for future development.

8.缺陷產品救濟與監管：大中華區法律衝突、協調與合作

負責人：謝耿亮
澳門科技大學 法學院

資助機構：

澳門基金會

完成時間(年／月)：

2011 年 12 月

主要參加者：

謝耿亮、龔曙東、張國華

課題簡介：

作爲世界工廠的大陸，爲本身及港澳臺地區提供大量物美價廉的產品，但由於缺陷產品尤其是缺陷食品帶來的糾紛也不斷發生，給大陸及港澳臺地區的消費者、零售商、進口商以及其他相關業者帶來不少損害。這說明現有大陸和港澳臺地區關於缺陷產品救濟與監管及其法律合作只法律績效可能存在不足，有改進或改革之空間。本項研究將從利益相關者的公共政策分析工具入手，客觀描述圍繞缺陷產品而產生的各方利害關係人及其利益得失，實證分析兩岸四地調整這些利益得失的私法（以事後救濟爲主）和公法（以事前監管爲主）之異同，分析比較制度差異對治理缺陷產品績效的影響，並研究法律協調和合作之可能性。

8.Remedies & Regulations for Defective Product: Conflict, Harmonization & Cooperation of Laws in Great China District

Principal Investigator: Xie, Gengliang

Faculty of Law, Macau University of Science and Technology

Sponsor:

Macao Foundation

Completion period (Y/M):

2011/12

Main Participants:

XIE Gengliang, GONG Shudong, ZHANG Guohua

Introduction:

Mainland China, as the world factory, has been providing for Hong Kong, Macau and Taiwan and herself a lot of quality sound and cheap products. The problem of defective product especially defective food has now been in the limelight. It shows that the legal system of remedies and regulations for defective products and the law cooperation system in the Great China District may have some flaws which need improvement or reformation. Based on the stakeholder analysis, this project will try to find all the interested parties and their interests and losses as the result of defective products, demonstrate the sameness and difference of the related private laws focusing on remedy and related public laws focusing on regulation, compare the effectiveness of these different laws for control of defective products, and research the possibility of harmonization and cooperation of laws for defective product in the Great China District.

9.澳門勞動法新論

負責人: 葉再興
澳門科技大學　法學院

資助機構：

澳門基金會

完成時間(年／月)：

2011 年

主要參加者：

葉再興

課題簡介:

隨著 1999 年澳門回歸，國內外學術界一度掀起引人矚目的“澳門熱”，關於澳門法律制度與法律文化的研究成果大量湧現，尤其在民法和刑法領域都有不俗的成果出現，但澳門勞動法領域則顯得冷僻而荒蕪。系統的勞動法教材屈指可數，有價值的勞動法學文獻則是鳳毛麟角，更莫談學術性極強的專題著述，這和澳門特別行政區的地位不相匹配。澳門新《勞動關係法》的頒佈雖然在立法上做了一定程度的“補救”，但如何正確解讀該法，成爲學術界和司法介面臨的共同課題。在法律科學之中，不論立法還是司法都必須運用法律自身的原理，按照邏輯的要求，以原則、規則、概念等基本要素制定和發展法律，以及通過適當的解釋規則運用和闡釋法律，這樣才能正確把握立法意旨，樹立法律規範的無上權威。

具體到勞動關係法，法學方法論的嚴格要求給新《勞動關係法》的解讀增添了非常的難度。無論是勞動關係的界定、勞動法特有的較有利原則，還是勞動基本權利、勞動關係的附隨義務等無不有解讀的必要。相比於雇主，雇員有著先天的弱勢，需要法律對其施行特殊的保護，新《勞動關係法》的適用則必須要遵從這一價值判斷基礎，切實維護雇員權益；與此同時，勞動法學也必須明確市場經濟的大背景，將《勞動關係法》的解讀放置於市場競爭的機制之下，以尋求雇傭雙方、勞資雙方利益的平衡點。

本課題研究確保勞動法基本原理的完整性，同時注重對一些新問題作一定深度的理論探討，如勞動關係和環境本位、勞資關係之間“鬥爭”的揚棄和“合作”新體制等，以適應勞動法學發展的新趨勢。

9.New Research on Macau Labor Relationship Law

Principal Investigator: Ye, Zaixing

Faculty of Law, Macau University of Science and Technology

Sponsor:

Macao Foundation

Completion period (Y/M):

2011

Main Participants:

Ye Zaixing

Introduction:

The Labor Relationship Law of Macau is about to come into effect, and how to explain the law correctly has become a common topic which the academic circle and the judicial practice face up with. In legal science, both the legislation and the judicature must utilize their own legal principles, according to the logic, the principle, the rule, the concept and so on, to formulate and develop the law, as well as through the suitable interpretation rules to utilize and explain the law. By this means, the legislative meaning can be grasped and the unsurpassed authority of the legal norms can be set up.

When it comes to the Labor Relationship Law of Macau, the strict request of the legal science methodology has increased the unusual difficulty of explanation, for example, the limitation of the labor relations, the labor law unique principle of being more advantageous, the basic rights, the supplementary duty and so on. Compared with the employer, the employee is weaker. So the Labor Relationship Law needs to comply with the value judgment.

This research guarantees the integrity of the labor law basic principles, and simultaneously pays great attention to some new questions to adapt to the new tendency of the labor legal science development.

10.近代澳門司法制度與實踐

負責人: 何志輝
澳門科技大學　法學院

資助機構：

澳門基金會

完成時間(年／月)：

2011 年 3 月

課題簡介:

近代澳門司法制度與實踐，是澳門法制史研究中的難點問題。本項目主要探討 1840 年以來澳門在殖民管治期間的司法制度與實踐，研究內容包括如下六點：1、鴉片戰爭之前澳葡攫取司法管轄權的醞釀過程；2、鴉片戰爭以來澳門司法權的嬗變（1840-1862）；3、清政府對澳門司法管轄權的旁落（1862-1887）；4、殖民管治時代的司法制度與實踐（1887-1976）；5、邁向本地自治的司法制度及其轉向（1976-1993）；6、《基本法》與過渡後期的司法轉型（1993-1999）。該項目現結集爲專著《近代澳門司法：制度與實踐》(北京：中國民主法制出版社，2011 年 12 月版）。

10.Judiciary in Modern Macao: Institutions and Practices

Principal Investigator: He, Zhihui
Faculty of Law, Macau University of Science and Technology

Sponsor:

Macao Foundation

Completion period (Y/M):

2011/3

Main Participants:

Ye Zaixing

Introduction:

Judicial system of modern Macau and its practice is a difficult problem in the research of Macau legal history. The subject is mainly focusing on the judicial system and practice of Macao in the period of colonial governance since 1840. The main content includes: 1. the brewing process of which Portuguese-Macanese Grab the jurisdiction before the Opium War; 2. Evolution of Macau jurisdiction since the Opium War (1840-1862); 3. Changed hands upon the Qing government towards Macau's jurisdiction (1862-1887); 4.Judicial system and practice during colonial governance times (1887-1976);5.Judicial system towards local self-government and its steering (1976-1993); 6. “Basic Law" and the judicial conversion in the late transition (1993-1999). The project has been compiled as monograph "modern Macau Justice: system and practice "(Beijing: Chinese democracy and rule of law Press, December 2011 Edition).

11.應用呼吸道細胞、免疫細胞膜上病毒受體固相化中藥抗呼吸道病毒感染的效應成分（群）的研究

負責人：朱荃
澳門科技大學 中醫藥學院

資助機構：

科學技術發展基金

完成時間(年／月)：

2011 年 9 月

主要參加者：

朱荃、鄭兆廣、顧斐、何寶、段婷婷、王汝上、湯丹

課題簡介：

本專案應用呼吸道細胞、免疫細胞膜上病毒受體固相化中藥抗呼吸道病毒感染的效應成分（群），從傳統的抗病毒中藥防風、板藍根、白芍、甘草和魚腥草等中藥中固相化分離得到可能的抗病毒成分樣品 18 個，通過藥理活性研究得成品 13 個，發表科技論文 2 篇（其中 SCI 收錄一篇，影響因數 2.733），申請專利 1 個（申請號：201110033746.9），共培養學生 8 人，其中博士研究生 4 人，碩士研究生 2 人，本科生 2 人。

11.Study on the effective compounds of Traditional Chinese Medicine against respiratory viral infection extracted by the virus receptors on the membrane of respiratory cells and immune cells

Principal Investigator: Zhu, Quan

Faculty of Chinese Medicine, Macau University of Science and Technology

Sponsor:

Science and Technology Development Fund, MSAR

Completion period (Y/M):

2011/9

Main Participants:

Zhu Quan, Zheng Zhaoguang, Gu Fei, He Bao, Duan Tingting, Wang Rushang, Tang Dan.

Introduction:

In this project, we studied on the effective compounds of Traditional Chinese Medicine against respiratory viral infection extracted via the virus receptors on the membrane of respiratory cells and immune cells. From the traditional Chinese antiviral medicine of Isatidis Radix, Saposhnikoviae Radix, Glycyrrhizae Radix, Paeoniae Alba Radix, Houttuynia cordata Thunb, et al., 18 potential active antivirus compounds were extracted and separated, then 13 samples were proved to have the activity of antivirus by bioactive assay. Two research papers were published and one of them was recorded in SCI with the impact factor of 2.733. A patent was applied with the application number 201110033746.9. During the program was carrying out, 8 students were trained, including 4 doctors, 2 masters and 2 undergraduates.

12.澳門本地居民對博彩業發展影響之感知研究

負責人：周勇
澳門科技大學　國際旅遊學院

資助機構：

澳門基金會

完成時間(年／月)：

2011 年 10 月

主要參加者：

周勇、Tracy Lu

課題簡介：

通過對相關文獻的回顧，本研究有針對性地進行了調查問卷的設計，並通過電話調查隨機訪問了本澳 546 名居民。獲得了居民對本澳發展博彩業所產生的各種影響的感知和看法。並結合居民的個人特質對影響居民產生不同的感知和看法的影響因素進行了深入探索。 本研究的結果對於政策制定者充分理解居民和社會對博彩業的認知和看法具有參考價值，有利於其在制定相關政策時充分理解當地居民的關切從而在相關政策中加以調整，獲得更多的社會支持。本研究也可成爲其他目的地地區在試圖採取博彩作爲旅遊發展的方向時作爲決策參考。研究獲得了預期成果。其成果在 2011 年亞太旅遊協會（APTA）年會）（2011 年 7 月在韓國首爾舉辦）中以論文演講方式發表。

12.Local Residents' Perceptions towards the Impacts of the Gaming Industry Development in Macau

Principal Investigator: Zhou, Yong

Faculty of International Tourism, Macau University of Science and Technology

Sponsor:

Macao Fundation

Completion period (Y/M):

2011/10

Main Participants:

Zhou Yong, Tracy Lu

Introduction:

Based on the review on related literature, this study surveyed 546 local respondents by telephone questionnaire interviewing the perceptions on the impacts of gaming development in Macao. Data collected were further analyzed. The results of the study reflected local residents' perceptions on different impacts brought by gaming development. It also explored the relationship between respondents' demographic variables and their perceptions on the impacts. The results can be valuable for decision-makers' better understanding of residents and community's reactions to gaming development and their concerns related. It would also be useful for other destinations which are to have a gaming development to attract tourists. The results of the study was presented and published in the 2011 Asia Pacific Tourism Association (APTA) annual conference held in July 2011 in Seoul, Korea

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13.澳門會展城市品牌構建戰略研究

負責人：李璽
澳門科技大學　國際旅遊學院

資助機構：
澳門基金會
完成時間(年／月)：
2011 年 3 月

主要參加者：
唐娟、高岩、毛蕾等

課題簡介：

本研究通過文獻分析和問卷調查的方法進行了研究。研究發現會展城市品牌要素主要歸爲五大類：城市外向型程度、城市個性化程度、城市會展生產核心要素、外部環境要素、會展配套產業要素。會展參與者可按照其關注的內容，被分爲對於城市外向型程度不關注的群體體、較爲關注城市個性化程度的群體、較爲關注城市配套產業要素的群體、對城市外向型程度及外部環境要素較爲關注的群體四類。並依據差距模型的原理，探索澳門城市品牌的強勢和弱勢要素。最後，結合澳門的會展城市分類及會展現狀，筆者對中小型、綜合型的澳門提出了近期、中期及遠期會展城市發展的具體策略，來打造澳門的會展城市品牌。

13.Branding Construction Strategy of Macau as a MICE Destination

Principal Investigator: Li, Xi

Faculty of International Tourism, Macau University of Science and Technology

Sponsor:

Macao Fundation

Completion period (Y/M):

2011/3

Main Participants:

Tang Juan, Gao Yan, Mao Lei

Introduction:

Literature review and questionnaire survey were the major research method in this study. Through research,it was founded that the brand elements of the convention and exhibition city can be mainly classified into five categories: export-oriented extent, the personalization, the core elements of exhibition, the external environment elements, and elements of exhibition supporting industries. Exhibition participants, by the content of their concern, can be divided into the4 types. They are those not concerning for export-oriented extent, more concerned about urban personality, more concerned about the elements of the supporting industries for MICE industry, more concerned about the export-oriented extent and external environmental factors. Based on the principle of the gap model, the strong points and weak elements of Macau are explored. Finally, the report proposed short, medium and long-term strategies to build the brand of Macao as a convention and exhibition city

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14.澳門美食旅遊顧客滿意度研究

負責人：張濤
澳門科技大學 國際旅遊學院

資助機構：
澳門基金會
完成時間(年／月)：
2011 年 10 月

主要參加者：
黃俊元、王心

課題簡介：

作爲當今全球發展最爲迅速的旅遊類型之一，美食旅遊主要指遊客前往旅遊地享用美食並多方位多角度地感受當地飲食文化。它不僅是文化旅遊的表現形式之一，也是特殊興趣旅遊的具體體現。澳門素以美食之城聞名海內外，但將美食作爲直接的旅遊吸引物、吸引遊客專程前來品嘗美食和感受美食文化並發展成爲美食旅遊目的地，則源於近年來各類美食嘉年華的籌辦。本研究分析美食旅遊的定義、結構和形式，對澳門美食旅遊發展進行系統分析，並通過實證研究確定美食旅遊滿意度的影響因素和測評手段。

14.A study on tourist satisfaction of food tourism in Macau

Principal Investigator: Zhang, Tao
Faculty of International Tourism, Macau University of Science and Technology

Sponsor:
Macao Fundation
Completion period (Y/M):
2011/10

Main Participants:
Jun-yuan Huang, Xin Wang

Introduction:

As one of the most rapidly developing tourism forms, food tourism means that tourists enjoy local food and experience local food culture though different ways at a tourism destination, which is not only a kind of cultural tourism, but also a typical case of special interest tourism. Macau is famous as a cuisine palace throughout the world, yet it became a food tourism destination until different kinds of food carnivals and festivals were held, which made food, wine and food related activities as a direct tourism attraction. This paper explores the definition, structure and forms of food tourism, analyses the origin and developments of food tourism in Macau, then categorizes the influence factors and measurement tools of food tourist satisfaction by empirical analysis method

15.澳門博物館的遊客感知服務質量研究

負責人：唐娟
澳門科技大學　國際旅遊學院

資助機構：

澳門基金會

完成時間(年／月)：

2011 年 11 月

主要參加者：

王盈娟、王亮、王心、邱宸雨、劉雨竹

課題簡介：

博物館旅遊是澳門旅遊產品的重要組成部份，除了發揮著重要的旅遊經濟貢獻作用，還承擔著“文化資本”的教化、交流功能，成爲區域文化品位的重要象徵。澳門博物館由於特殊的歷史背景和經濟因素，已然形成了一定的集聚規模效應，接待人數逐年增長，成爲澳門旅遊經濟和社會文化現象中一個不容忽視的亮點。但是，遊客對於澳門博物館旅遊的質量感知狀況究竟如何、如何將博物館這種公益文化性事業更好的和旅遊經濟產業結合、如何提升博物館服務質量等議題，尚屬有待填補的空白領域，這些研究議題的開展，不僅僅對於更好的推動博物館充分發揮文化載體功能具有直接的指導意義，而且對完善旅遊產業譜系之一 -- 博物館旅遊，從提升遊客感知質量角度提供了具體的策略建議。另外，從城市經營的角度而言，該研究也將爲活躍澳門博物館的文化創意產業，提升澳門地區的文化形象提供相應的啓發性思路。本研究在回顧國內外博物館旅遊以及服務領域質量管理研究基礎上，探析了澳門博物館旅遊的發展軌跡，對澳門博物館旅遊的發展歷史、現狀、特色以及多重利益主體的格局狀況、發展的動力機制的問題進行了深入探討，繼而結合澳門博物館的特色屬性，在 Servequal、ASCI 等有影響力的服務質量測評模型基础上，整合適當的質量測評模型，對遊客的質量感知進行問卷調查，瞭解澳門博物館旅遊的服務質量的總體情況，挖掘服務質量中有待強化的方面，並嘗試研究綜合性博物館和專題型博物館在服務質量感知上的異同，並針對這些提出建設性的優化策略。

本研究的成果除了由項目組的組員獨立或者合作在不同級別的刊物上公開發表了 8 篇文章之外，還完成了 7 萬字左右的項目報告。

15.Visitor's Perceived Service Quality of Museums in Macau

Principal Investigator: Tang, Juan

Faculty of International Tourism, Macau University of Science and Technology

Sponsor:

Macao Fundation

Completion period (Y/M):

2011/11

Main Participants:

Wang Yingchuan, Wang Liang,Wang Xin, Qiu Chenyu, Liu Yuzhu.

Introduction:

Museum Tourism in Macau, as an important part of tourism products portfolio, not only plays an increasingly significant role in tourism economy, but also contributes a lot to the "flow of cultural capital", which enhance the cultural communication and enrich the cultural resources for the city of Macau. Museums in Macau have witnessed a steady prosperity in the terms of visitor volume and the number of museums due to special historical and economic backgrounds. However, the visitors' perceived quality of Museum Tourism in Macao has remained unexplored yet. Compared with the prosperous development of Museum Tourism in Macau, the research status is now way far behind, which will in return be of no theoretical guidance to practice. Issues like this are definitely beneficial not only for the promotion of service quality for museums in Macau to keep or even strengthen the competitiveness, but also for an optimized development of cultural sectors. Based on a detailed literal review of both Museum Tourism and service quality, this research probes into the current situation and historic background of Museum Tourism in Macau, weighing up the characteristics of coexistence of stakeholders as well as dynamics of it. Appropriate quality evaluation model of tourist perceptions of the quality will then be selected and adjusted for empirical study to meet the special nature of Museum Tourism. From the result of questionnaire survey, we are trying to search for a comprehensive idea of current service quality. Some advanced comparative analysis will also be carried out to look for clues on any possible differences in perceived quality between comprehensive Museums and specialized Museums. As a conclusion, some targeted suggestion will be put forward for a better service quality in Museum Tourism in Macau.

This research is accomplished with 8 working paper which have already been published in different journal, as well as a lengthy report of about 70,000 words.

16.從業人員流動模式及服務質素提升對策研究—以澳門旅遊業爲例

負責人：李璽
澳門科技大學　國際旅遊學院

資助機構：

澳門基金會

完成時間(年／月)：

2011 年 8 月

主要參加者：

唐娟，高岩、李燕燕，畢釗明等

課題簡介：

酒店業是澳門旅遊經濟的中堅力量。論文以澳門酒店業爲例，研究酒店員工流動原因和工作經驗對勝任力的影響，研究視角較爲獨特，爲業界及學術界提供一定的實踐及理論參考。本研究的調查對象爲澳門不同等級酒店中有過離職經歷的在職員工。問卷的發放回收工作從 2011 年 3 月 15 日開始發放，利用分層抽樣隨機抽取調查地點的方法對調研地點進行了分配，採用方便抽樣的方法在所抽取的酒店員工出入口對酒店員工進行問卷調查。研究首先構建酒店員工勝任力模型，其次對假設做出驗證分析。在此基礎上對酒店人員流動管理提出建議。

16.Research on Staff Turnover Mode and service quality Increasing Strategy: A Case Study of Macau Hotel Industry

Principal Investigator: Li, Xi

Faculty of International Tourism, Macau University of Science and Technology

Sponsor:

Macao Fundation

Completion period (Y/M):

2011/8

Main Participants:

Tang Juan, Gao Yan, Li Yanyan, Bi Zhaoming, et al

Introduction:

Hotel industry is a traditional labor-intensive industry, and also the industry that has high frequency of employee turnover. The high mobility of hotel employees in hotel industry is a widespread phenomenon. Without a stable workforce, it is difficult for a hotel to survive the fierce competition. Hotel industry is the backbone of Macau's economy. This research perspective is unique; it focuses on the impact of turnover reasons and work experience on the competence of Macau hotel employees. The questionnaires were distributed from early March, 2011. The subjects of the survey are employees that have the experience of frequent changing their jobs in different rankings of hotels in Macau. They were selected according to certain criteria we had set up. Questionnaire data were analyzed statistically by PASW18 and AMOS17.0, and have an integrated use of factor analysis, structural equation method, regression and variance to analyze data and draw conclusions.

17.澳門發展商務休閒醫療旅遊市場可行性研究

負責人：梁文慧
澳門科技大學　國際旅遊學院

資助機構：

澳門基金會

完成時間(年／月)：

2011 年 8 月

主要參加者：

梁文昌、高岩及研究助理

課題簡介：

隨著居民健康保健意識不斷增強，以及居民健康服務需求持續提升，健康服務供給結構亟需優化。儘管目前人們已經開始關注生活的健康指數，但是社會上的健康服務供給結構尚未完全符合現代社會的需要。如澳門特區政府在爲市民提供比較完善的基礎醫療服務的同時, 健康檢查的服務相對欠缺。爲此，澳門應該儘量調整健康醫療服務的供給結構，透過結構優化來滿足各界人士對健康生活的需求。

本研究的綜合採用文獻分析法、問卷調查法、統計分析法等對以下方面展開研究：

1、澳門健康檢查及服務市場的發展現狀。分析目前澳門健康檢查及服務市場的機構、服務內容及類型等。

2、訪澳旅客對健康檢查與服務的認知。透過問卷調查的方式，對旅客進行深入的研究，瞭解其對健康檢查與服務的認知與態度。

3、訪澳旅客對健康檢查與服務的需求。瞭解其在健康服務方面的需求數量、需求結構以及需求的發展趨勢。

4、訪澳旅客對健康檢查與服務的消費特點。透過對以往健康服務消費經歷的調查，瞭解訪澳旅客在健康服務方面消費的行爲特點，如類型偏好、資訊來源、價格認同、服務期望等。

5、影響訪澳旅客消費健康服務的要素。試圖分析和瞭解對訪澳旅客在消費健康檢查以及服務時產生影響的各類因素，以便於更好的促進其消費，提升健康檢查及服務的滿意度。

6、澳門發展醫療旅遊的發展方向與建議。透過上述研究，並結合國內外的發展經驗，希望能夠爲澳門未來的醫療旅遊發展提供戰略性的指導與翔實的可行性分析。

在對前人醫療旅遊相關研究綜合分析的基礎上，課題組針對澳門本地的醫療及旅遊相關的業界及政府部門的代表進行了深度訪談。

此次專家訪談的對象選擇主要圍繞醫療和旅遊兩個核心領域，同時，希望能夠從多個角度對澳門發展商務休閒醫療旅遊進行探討。因此，在訪談專家選擇上會兼顧業界與政府，同時包括醫療業界和旅遊業界之人士。由於訪談的組織具有一定的難度，在訪談物件的數量上必然受到限制。因此，爲了使訪談的結果更加具有代表性，項目組在選擇訪談物件時，會儘量考慮業界協會或社團組織領導人物進行訪談。

此次受訪物件中有政府相關部門的代表，還有學術團體如澳門科技大學、澳門衛生政策學

會等機構的代表。同時，衛生和醫療相關的產業界代表人士也參與了此次訪談。

從專家訪談的問題設計來看，其主要目的包括：明確發展醫療旅遊所需的內外部環境和要素、對澳門在醫療旅遊發展方面的優勢進行診斷、進一步探討澳門在醫療服務方面的瓶頸與制約因素，同時針對澳門發展商務休閒醫療旅遊的可行性開展深入研究。在訪談問卷設計的基礎上，課題組從 2011 年 6 月 10 日開始訪談，共經過十天，6 月 20 日完成所有的訪談工作。

通過訪談課題組認爲，品質、醫療技術、旅遊、價格、醫療人才、可進入性以及安全是值得認真研究和探討的醫療旅遊發展所需要素和專案。其中醫療發展的核心要素有四項：品質、醫療技術、價格、醫療人才。周邊環境要素有三項：旅遊、可進入性、安全。

此外，在訪談中，課題組還發現受訪者普遍認同澳門發展醫療旅遊之必要性，但是受訪者對澳門發展醫療旅遊的可行性並不完全認同。

爲了更加系統的對澳門發展醫療旅遊的條件和環境進行分析，課題組還結合二手資料分析和深度訪談所獲資訊對澳門醫療旅遊發展的條件進行了分析。瞭解到，在澳門發展醫療旅遊的週邊環境方面，澳門正採取積極醫療投入政策；目的地的可進入性不斷優化；澳門旅遊吸引物正不斷多元發展。在澳門發展醫療旅遊的瓶頸與限制方面，本地醫療人力資源較爲缺乏；專科醫療的設施和資源不足；本地居民的醫療需求不斷增大；管理制度不利於醫療服務多元化發展；醫療技術和服務質量缺乏監管和標準是面臨的主要問題。

課題組在前述研究的基礎上，課題組針對訪澳旅客的感知與行爲進行了研究。研究時主要借助問卷調查的方式進行。共發放問卷 500 份，回收有效問卷 481 份，回收有效率爲 96.2%。通過信度和效度分析可知，此次問卷調查所獲資料具備較好的信度和效度，從而能夠保證此次調研的結果具有較好的代表性和可信度。

通過資料分析，課題組認爲訪澳旅客對醫療旅遊發展環境要素的感知主要透過四個維度實現，分別是：醫療機制、醫療服務、醫療旅遊環境、費用等。

此外，課題組還發現，受訪旅客對於醫療旅遊發展條件中的安全、設施、私隱以及政治環境和交通條件較爲關注。針對澳門而言，受訪者對澳門醫療旅遊現狀最滿意的是安定的政治環境，其次爲發達的旅遊接待業、舒適的氣候條件、方便的交通條件。滿意度最低的五個發展條件分別是相對便宜的醫療費用、有醫療專項簽證、能用本國的醫保福利、較短的排期或無需等候預約，以及有醫療回訪機制。

借助 IPA 分析方法可知，訪澳旅客認爲澳門在發展醫療旅遊時，需要重點提升的要素包括：提供先進的醫療設備、提供國際認可的醫療服務、醫療價格的資訊應公開。

此外，在資源和條件允許的情況下，澳門在發展醫療旅遊過程中，也可以適當考慮對下列要素進行優化：培養或引進知名的醫師、爲旅客提供醫療專項簽證、能與客源地的醫保福利對接使用、較短的排期或無需等待預約、提供出行前的會診、政府對外國醫療者提供補貼以及組建專業的醫療及旅遊中介機構等。

在對旅客參與澳門醫療旅遊的意願以及感知維度進行多元回歸分析後，課題組認爲，如果希望提升旅客在澳門進行醫療旅遊的意願，澳門應該首先提升人們對醫療服務品質的感知。其次，爲到訪旅客提供較爲合理的醫療服務價格。

受訪者對醫療旅遊的總體接受度較高，但屬於被動接受型，課題組還對不同群體在醫療旅遊認知和態度上的差異進行了系統分析，找到不同群體在醫療旅遊感知和態度方面的差異。

從對醫療旅遊產品的偏好來看，本研究通過均值比較來瞭解不同醫療及療養活動對受訪者的吸引力程度。可以得知，對於受訪者來說最受歡迎的是溫泉療養，其次是水療 SPA，然後依次是中醫療養養生、健康檢查及治療、內科診療、美容整形、外科手術以及婦科、男科診療。

在醫療旅遊的資訊傳播管道方面，對於受訪者來說可信度最高的是朋友、家人，其均值達到了4.4，幾近最高值5，可以說受訪者對於朋友、家人提供的資訊是深信不疑的。而其他管道的資訊則可信度不是很高。

課題組還對受訪者總體對醫療旅遊停留時間及消費水準的認知進行了調查。通過資料計算得到，受訪旅客總體平均願意花費在一次醫療旅遊上的費用爲 888.32 美元，約合 5330 人民幣。而停留時間上，平均願意的停留時間爲 6.7 天。爲此，在設計醫療旅遊的產品和線路時，也應該以上述標準作爲產品設計的主要方向。

結合上述分析的結果，課題組將澳門發展醫療旅遊的可行性結論概況爲：擁有一定的發展條件，但還需進一步完善；擁有潛在市場客源，但還需要持續培育；完善現有醫療條件，積極規劃未來發展。

在醫療旅遊產品的設計方面，從供給的角度來看，應該重點考慮的是 SPA、健康檢查、中醫療養、中醫治療等產品形式。從需求方的訴求特徵和偏好來看，最受受訪者歡迎的是溫泉療養，其次是水療 SPA，然後依次是中醫療養養生、健康檢查及治療、內科療診。可見總體上的供需之間存在較好的銜接橋梁，即溫泉療養、水療 SPA、中醫療養養生、健康檢查及治療等。這些醫療旅遊的產品形式均被供給方和需求方較多次的提及，是可以考慮的發展的重點方向。結合上述方面的研究發現，課題組認爲澳門在發展醫療旅遊產品方面，可以考慮的三種主要產品形式爲：休閒水療 SPA、健康檢查、中藥養生。

在上述研究發現的基礎上，課題組還結合國內外醫療旅遊發展的成功經驗，提出了澳門在發展醫療旅遊過程中的保障體系。其主要包括以下七個方面：提升旅客對健康的關注度，普及醫療旅遊的意識；實施管理制度創新，鼓勵醫療資金和人才的流動；與橫琴開展區域合作，開發溫泉及中醫療養產品；強化醫療服務質量管理，推進國際化服務規範；開展醫療保險制度的合作與創新，實現無障礙醫療；突出澳門醫療旅遊的特色，加強個性化宣傳；與專業中介機構合作，藉助科技手段實現創新發展。

17.A Feasibility Study on Developing Medical Tourism for Business and Leisure in Macau

Principal Investigator: Prof. Aliana Leong

Faculty of International Tourism, Macau University of Science and Technology

Sponsor:

Macao Fundation

Completion period (Y/M):

2011/8

Main Participants:

Leong Man Chang, Gao Yan and research assistant

Introduction:

With the growing health care awareness of residents and the continuous demand for health services, the supply structure of health care services in Macau needs to be optimized. Although the health index is primarily a concern of the people, the social supply structure of health care services does not yet fully meet the needs of modern society. For instance, the Macau SAR Government provides more comprehensive basic health services while the health evaluation services are deficient. To this end, Macau has to adjust the supply structure of health care services through optimization to effective respond to the needs of people from all walks of life.

Combined methods of literature analysis, questionnaires, statistical analysis, and others were employed for the research in following aspects:

1. The development status of health evaluation and service market of Macau. Analysis of the institutions, contents and types of health evaluation and service market of Macau.

2. The cognition of visitors to Macau for health evaluation and medical service. Through a questionnaire survey to comprehensively understand the visitors' cognition and attitude towards health evaluation and medical service.

3. The demands of visitors to Macau for health evaluation and service. To understand the quantity, structure and trends of demands in health services.

4. The health evaluation and medical service consumption characteristics of visitors to Macau. Through a survey of previous experience of health service consumption to find out the behavioral characteristics of health service consumptions of the visitors in Macau, such as their preferences in types, information sources, price identity and service expectations.

5. The factors affecting the health service consumption of visitors to Macau. Attempted to analyze and understand the various factors that influence the service check and service consumptions of the visitors to effectively promote consumption and enhance the degree of satisfaction of health evaluation and medical service.

6. The direction of development and corresponding advices to medical tourism of Macau. Through the above research and reference to the development experience locally and abroad, this study is expected to

provide strategic guidance and detailed feasibility analysis for the future development of medical tourism in Macau.

Based on the comprehensive analysis of the previous researches on medical tourism, the research group conducted in-depth interviews for medical and tourism-related industry and government representatives of Macau.

The interviews for experts are mainly conducted in two core fields, medical and tourism with the desire to explore the development for business and leisure medical tourism in Macau from a multi-faceted perspective. Therefore, the experts selected for interview were chosen from both the industry and the government while ensuring that persons from the medical and tourism industries were also included. Since the organization of interviews was not very easy, the number of interviewees was somewhat limited. In order to make the results more representative, the project team selected trade association or community organization leaders as interviewees.

The respondents of this interview included representatives from relevant government departments, as well as academic institutions, such as, Macau University of Science and Technology, Macau Health Policy Institute and other organizations. At the same time, representatives from health and medical-related industries also participated in the interviews.

Seen from the question design of expert interviews, the main objectives include: to define the internal and external environment and the necessary elements for developing the medical tourism, to diagnose the advantages of Macau in developing the medical tourism, to further explore the bottlenecks and constrained factors of medical services in Macau, and to carry out in-depth study on the feasibility of developing the business and leisure medical tourism in Macau. Based on the interview questionnaire design, the group took ten days to complete all the interviews from June 10 to June 20, 2011.

Through interviews, the project team believed that quality, medical technology, tourism, price, medical professionals, accessibility and security were the elements needed for development of medical tourism which are worthy of serious studying and exploration. The four core elements of medical development were: quality, medical technology, price, and medical professionals; while the three elements of the surrounding environment were tourism, accessibility and security.

In addition, during the interviews the project team also found that the necessity of developing the medical tourism of Macau was widely accepted by the respondents, despite its feasibility not entirely recognized.

For a more systematic analysis of conditions and environment for developing medical tourism in Macau, the project team also analyzed the conditions for developing the medical tourism in Macau referring to the secondary data analysis and in-depth interview. It was understood that for the external environment for developing medical tourism in the city, Macau has been taking positive medical investment policies; accessibility of destinations has been optimized continuously; tourism attractions of Macau have been constantly diversified. For the bottlenecks and restrictions of developing medical tourism in Macau, the local human resources in health care are insufficient; the specialized medical facilities and resources are inadequate; the medical needs of local

residents are increasing; management system is not conducive to the diversified development of health care services; and the medical technology and service quality are lacking in supervision and has below average standards.

On the basis of the aforementioned study, the project team studied the perceptions and behaviors of visitors to Macau through a questionnaire survey. A total of 500 questionnaires were distributed. A feedback of 481 valid questionnaires were received with a recovery rate of 96.2%. The obtained survey data highly reliable and valid which could guarantee a good representation and credibility of the research results.

Through data analysis, the project team proposed that the perceptions of environmental elements of visitors to Macau for the development of medical tourism are primarily in four dimensions: health care system, medical services, medical tourism environment, and cost.

Further, the project team also found that the responses of visitors were more focused on safety, facilities, privacy, political environment and traffic conditions among the development conditions of medical tourism. For the status of medical tourism in Macau, respondents were most satisfied with the stable political environment, followed by well-developed tourism hospitality, comfortable climate and convenient traffic conditions.

On the contrary, the five conditions for development with lowest satisfaction were the relatively inexpensive health care costs, holding special medical visa, could use their local health insurance benefits, short or no waiting for scheduled appointments, and with the medical return visit system.

Through the IPA analysis method, it was found that visitors to Macau believed the elements needed to be focused on when improving the medical tourism in Macau were: the provision of advanced medical equipment, the provision of internationally recognized medical services, and the issuance of a standardized price information to the public .

In addition, as and when the resources and conditions permit, the following elements could also be considered during the development of medical tourism in Macau: training or introduction ofwell-known physicians and other medical practitioners, providing special medical visa for visitors, using the Medicare welfare benefits of tourism-generating regions, a shorter or no wait for scheduled medical appointments, providing pre-travel consultation, subsidies provided to Government and foreign medical professionals, and setting up professional medical institutions and travel intermediaries, among others.

Through a multiple regression analysis of the visitors' willingness to participate in medicaltourism of Macauas well as their perceived dimensions, the project team believed that the perception of visitors for quality of medical services should be improved first in order to attract more medical tourists to Macau. Secondly, a more reasonably priced medical services should be offered to the visitors.

The overall acceptance of respondents for medical tourism is high, but with a passive acceptance model. The project team also conducted a systematic analysis of perceptions and attitudes to medical tourism from different groups to compare and contrast the perception and attitudes to the medical tourism among different groups.

For the preference to medical tourism products, this study found the attractiveness of different medical and recuperation activities by comparison of the mean. It was found out that, for the respondents, SPA followed by Chinese medicine regimen, health check and treatment, medical therapy, aesthetic surgery, surgical operation, gynecology, and male-directed treatment.

For the transmission channels of medical tourism information, the highest reliability for respondents were from friends and family with the mean of 4.4 close to the maximum value of 5. It can be said that the respondents were convinced of information provided by their friends or family, whereas information from other channels was not very credible.

The perceptions of respondents on length of stay and consumption level during the medical tourism were surveyed as well. Through the data calculation, the respondents would like to spend an average of $ 888.32, or about 5,330RMB on medical tourism for each time and the average length of stay was 6.7 days. Therefore, the above standards should be considered as the main direction of product design when creating medical tourism products and routes.

Combined with the analysis results, the project team concluded the feasibility of developing medical tourism in Macau as the following: with some certain conditions for developmentbut needs further improvement; existing potential tourist markets, although needs to be fostered; improve the current medical conditions, and actively plan for the future.

For the medical tourism product design, from the supply point of view, hydrotherapy , and medical therapy. It was shown that there was a good connected bridge between the overall supply and demand, which was spa, hydrotherapy spa, Chinese medicine regimen, and health check and treatment, among others. These medical tourism products used to be mentioned by both suppliers and consumers many times and could be considered as the key direction for development. Referred to the above research findings, the project team proposed that the main forms of products that Macau should base the development of the medical tourism were leisure hydrotherapy spa, health checks, and Chinese medicine regimen.

On the basis of the above research findings, the projects team also used the successful experiences of medical tourism development locally and internationally ti raise a protection system in developing Macau medical and health tourism. This system consists of seven aspects: to enhance the tourists' awareness of medical tourism; implement the innovation of management system, and encourage the flow of health funds and personnel; cooperate with Hengqin region to develop spa and Chinese medicine regimen products; strengthen health care quality management, and advance standards of international services; carry out medical insurance system for collaboration and innovation to achieve barrier-free health care; show the features of medical tourism of Macau, and intensify unique publicity; cooperate with professional intermediaries and use technological means to achieve innovative development.

18.澳門持續教育創新發展策略與保障體系

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資助機構：
澳門基金會
完成時間(年／月)：
2011 年 8 月

主要參加者：
李嵩義及研究助理

課題簡介：

本研究旨在探究澳門持續教育創新發展策略與保障體系的相關議題，具體而言，本專案的主要研究目的在於在總結國內外持續教育發展經驗的基礎上，通過分析澳門當前持續教育的發展現狀和需求特徵，探討促進澳門經濟持續健康發展和人才培養而進行的持續教育創新發展研究，爲澳門持續教育事業持續健康發展提供良好的理論支撐，也將更好地服務於澳門的社會經濟發展並促進個人素質的不斷提升。

本研究內容具體結構如下：1、國內外持續教育研究的文獻綜述； 2、澳門持續教育面臨的背景分析；3、澳門持續教育發展的歷程與現狀調查；4、澳門持續教育關注的熱點話題；5、澳門持續教育發展的戰略定位；6、澳門持續教育發展的模式創新；7、澳門持續教育發展的創新策略；8、澳門持續教育發展的管理創新；9、澳門持續教育發展的保障體系；及 10、澳門持續教育發展的整體效能。

研究方法主要採問卷調查法、訪談法及焦點團體座談法，問卷調查主要是以澳門特區具代表性之持續教育機構，包含澳門科技大學持續教育學院、旅遊學院、澳門生產力暨科技轉移中心、勞工局職業培訓廳、澳門大學持續進修中心、法律及司法培訓中心及澳門理工學院培訓中心等機構之成人學習者爲研究樣本，研究問卷共發出 1822 份，有效回收 1539 份，回收率爲 97.84%。訪談法主要爲訪談 10 位澳門地區持續教育專家學者，焦點團體座談法參加對象爲 21 位參與成人教育導師培訓課程之學員。

本研究主要研究工具有二：分別爲「澳門持續教育創新發展策略與保障體系」調查問卷及「澳門持續教育創新發展策略與保障體系訪談大綱」。問卷所得資料輸入電腦，以電腦統計套裝軟體 SPSS 18.0 for Windows 進行統計分析，包括次數分配、平均數、標準差、百分比、t 考驗、$\chi 2$ 考驗、單因數變異數分析等統計方法，加以處理。並將訪談所得結果加以編碼歸類。

本研究得到以下結論：

1、政府主導持續教育、健全立法及完善體制、多元激勵機制激發參與、因應學員需求，優化人才培養體系提升師資素質爲國外繼續教育主要的成功經驗。

2、澳門持續教育面臨的背景主要呈現在經濟逐漸增長、就業壓力增大及發展空間廣闊等三大面向。

3、從澳葡政府的不甚重視到穩定迅速發展，從學校增設、制度訂定及組織機構不斷革新進

步的澳門持續教育。

4、澳門持續教育已獲成就主要爲持續教育法律法規的進一步完善，高等與非高等持續教育理念的推動深化與機構持續的增設。

5、提高澳門就業人口教育程度，調整澳門產業結構，注重“以人爲本”、家庭教育，社會化、個性化及現代化發展爲現時澳門持續教育迫切進行重點工作。

6、澳門持續教育發展的戰略定位可從發展戰略、管理體制、運行機制、品質評估等四大面向加以明確定位及發展。

7、在戰略定位上，女性、較高教育程度者、教師對於品質評估有較高的要求，而中高階主管則對於管理體制的完備有著較高期待。

8、澳門持續教育發展的模式創新可從成人教育模式、社區教學模式、網路教學模式及企業培訓模式等四大面向加以創新及發展。

9、在模式創新上，北區居民、女性、30 歲以下、大專大學學歷、服務業較爲偏好企業培訓模式；而 31-40 歲、研究所學歷、教師則可接受網路教學模式。

10、澳門持續教育發展的創新策略主要面向可用觀念創新、內容創新、形式創新、手段創新、途徑創新等五個面向擬定創新策略加以革新精進。

11、在創新策略上，北區、女性、30 歲以下、高中/職中學歷、5000 元以下收入、5 年以下工作年資者及基層人員偏向形式創新改革策略。

12、澳門持續教育發展的管理創新主要面向可從培養計劃、人才結構、課程設置、師資培養、合作項目、學員管理等六個面向加以實施管理創新。

13、在管理創新上，北區、女性、30 歲以下居民對於培養計畫有明顯需求，女性、研究所學歷、教師及中階幹部則偏好師資培養，北區、30 歲以下、未婚、5000 元以下收入則認同學員管理，而研究所學歷、未婚、5 年以下工作年資則較支援合作項目的管理創新。

14、澳門持續教育發展的保障體系面向可從政策保障、資金保障、技術保障、人才保障等四個面向上提供完整的保障制度及配套條件。

15、在保障體系上，北區、30 歲以下、5 年以下工作年資者較爲需要資金保障，女性認同人才保障，30 歲以下、基層人員則應提供技術保障。

16、工作年資較長者較爲關注持續教育趨勢發展、支持持續教育經費支出及開辦較多的導師培訓項目及課程。

17、中高階主管較爲重視持續教育的教學內容品質、體制完備性、未來趨勢發展、經費支持及師資培訓等發展項目。

18、教師認爲持續教育法規訂定應更加嚴謹，另可針對收入較高族群開設高階持續教育師資培訓專班協助提升高階專業職能。

綜合本研究的發現與結論，茲提出有關對於持續教育學習者本身、政府組織、大學持續教育機構之具體建議以作爲革新之參考：

一、對學習者本身

1、配合政府持續進修發展計劃，共同建構澳門終身學習社會

2、積極參與持續教育課程，自我增值提升自我職場競爭力

3、加入持續教育相關組織、機構或團體成爲會員，共同爲澳門持續教育專業發展而努力。

二、對政府組織

1、制定持續教育法規及完善的持續教育制度、具體方案和明確政策。

2、成立持續教育發展委員會或推動小組，統一持續教育推動及發展事權。

3、設置持續教育發展基金，寬列持續教育發展預算，補助持續教育經費。

4、建立非正規教育、職業培訓和高等教育的銜接制度，促進各體制間的流通。

5、均衡設置終身學習中心，建立學習型組織，推動社區持續學習風氣。

6、編印澳門持續教育資源手冊及設置持續教育專屬網站並提供電話諮詢專線。

7、關懷弱勢澳門社會上不同背景的人口族群以擴大持續教育對象的參加。

8、成立持續教育專業認證機構或組織，專業認證師資、教材及組織機構品質。

三、對大學持續教育機構

1、依據社會及職場需求開設高階持續教育培訓專班，協助提升高階專業職能。

2、成立持續教育專業全職導師隊伍，強化成人教育導師專業知識、態度及技能。

3、強化企業與高等院校合作關係，以建教合作方式協助培訓企業員工提升職能。

4、針對特定族群嘗試推出網路培訓教學課程，以輔助教室面授課程之不足。

5、設計彈性學制、成立持續教育學分銀行，以零存整付方式提供在職人士持續學習及學歷提升機會。

6、跨校跨區合作開設校際持續教育特色課程，聯合頒授持續教育課程學位證書或文憑。

7、創辦成人教育研究所有系統長期性培養持續教育專業人才引領持續教育專業。

18.The innovative development strategies and security system in Macau Continuing Education

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Sponsor:

Macao Fundation

Completion period (Y/M):

2011/8

Main Participants:

Li Songyi and research assistant

Introduction:

This study aims to explore the related issues of strategies for innovative development and protection system of continuing education in Macau. Specifically, this study explores the researches on innovative development of continuing education while promoting the sustainable and healthy development of economy and personnel cultivation so as to provide good theoretical support to the sustainable and healthy development of continuing education in Macau. Further, this study aims to better serve the socio-economic development of Macau and promote the continuous improvement of personnel qualities as well.

The first stage of the study on "The Strategy of Innovative Development and Protection System of Macau Continuing Education" is structured as follows: 1. Literature review of researches on continuing education at home and abroad; 2.The background analysis of Macau continuing education; 3.Survey on the developing process and status of Macau continuing education; 4. Hot issues confronting Macau continuing education; 5.Strategic positioning of Macau continuing Education; 6. Research methods and design; 7.Model innovation of the development of Macau continuing education; 8.Innovative development strategies of Macau continuing education ; and 9.Managerial innovation of Macau continuing education.

Questionnaire survey, in-depth interview and focus group interview were employed in this study. The respondents of the questionnaire were mainly adult learners from representative continuing education institutions of Macau, including the School of Continuing Studies of Macau University of Science and Technology, Institute for Tourism Studies, Macau Productivity and Technology Transfer Center, Labor Bureau of Vocational Training Department, Center for Continuing Education of University of Macau, Legal and Judicial Training Centre and Macau Polytechnic Institute Training Center and others. There were 1822 questionnaires distributed with 1539 feedback or a validity rate of 97.84%. Meanwhile, 10 experts and scholars in the field of continuing education of Macau participated in the in-depth interviews and 21 students who attended the training courses for adult education teachers participated in the focus group interview.

This study adopted two research tools: a Questionnaire on "The Strategy of Innovative Development

and Protection System of Macau Continuing Education" and an interview outline of "The Strategy of Innovative Development and Protection System of Macau Continuing Education". The data obtained through the questionnaire survey was input into the computer for statistical analysis by computer statistical software package--SPSS 18.0 for Windows, including frequency distribution, mean, standard deviation, percentage, t-test, $\chi 2$ test, one-way analysis of variance and other statistical methods. The interview results were coded and classified as well.

This study arrived at the following conclusions:

1. The main successful foreign experiences of continuing education are: government plays leading role on continuing education, improving legislation and related systems, setting up multiple incentives to stimulate participation, meeting the demands of students, and optimizing the personnel training system to enhance the quality of continuing education.

2. The backgrounds that the continuing education of Macau is confronted with are mainly the gradual growth of the economy, the increased pressure of employment and the broad development space.

3. The continuing education of Macau has been grown quickly and steadily with more schools built, system formulation, and the continuous reformation and improvement of institutes since the age in which the Macau Portuguese Government gave little attention to it.

4. The main achievements of Macau continuing education are the improvement on legislations involving continuing education, the promotion and depth of ideas of higher and non-higher continuing education, and the continuously improving institution.

5. Improving the education level of Macau workforce, adjusting the industrial structure of Macau, focusing on the idea of "people-oriented", family education, and the development of socialization, individuation and modernization are the urgent key tasks of Macau continuing education.

6. The strategic positioning of Macau continuing education can be placed definitely and developed from the four aspects of development strategy, management system, operation mechanism, and quality assessment.

7. For the strategic positioning, women, those with higher education, and teachers have relatively higher requirements for quality assessment, while middle and senior level executives have higher expectations for the management system.

8. The Macau continuing education pattern should be developed from the following aspects: innovation of adult education pattern, community teaching pattern, network teaching pattern and corporate training pattern.

9. For the pattern innovation, residents from North region, female, people under 30 years old, people with a College degree, and those from the service industry preferred the corporate training pattern; those who are 31-40 years old, people who have had some research and teachers prefer the network teaching pattern.

10. The strategy innovation of Macau continuing education should be developed and reformed for advancement in the following five aspects: concept innovation, content innovation, pattern innovation, means innovation, and approach innovation.

11. For the innovative strategies, respondents who have had high school or vocational education, the respondents with below MOP5000 monthly income, and those at the grassroots level tend to be more interested in the pattern innovation.

12. The innovation on the managerial level of continuing education in Macau should be -focused in the following six aspects: education plan, talent structure, curriculum, training of teachers, project collaboration, and management of students.

13. For the managerial innovation, respondents respondents under 30 years old have significant demand for education plan; females, people with people with people with , teachers and cadres at the middle level have preference for training of teachers; respondents in the North region, respondents under 30 years old , unmarried respondents, those with income below MOP5,000 subscribe to management of students; people with the education background of research institute, unmarried respondents, and respondents with a working experience of under 5 years support the managerial innovation of cooperative projects.

19.澳門旅遊景點旅客調查研究

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資助機構：

澳門特別行政區政府，旅遊發展輔助委員會

完成時間(年／月)：

2011 年 8 月

主要參加者：

李璽、梁文昌及研究助理

課題簡介：

近年來，澳門旅遊業迅速成長，多元化發展趨勢顯著。特別是隨著澳門可進入性條件不斷改善，旅客交通更爲便捷，到訪澳門的旅客人數也不斷攀升。與此同時，伴隨澳門確定世界旅遊休閒中心的戰略定位，澳門的景點數量正不斷豐富，景點類型日趨主題化和多元化。但是，從相關調查結果來看，旅客對景點的滿意度有待進一步提升。如通過對官方數據進行整理，課題組發現，在過去的兩年中平均有 12%的訪澳旅客認爲澳門旅遊景點不足。但是，上述旅客消費調查未能進一步瞭解旅客認爲觀光點不足夠的原因。

目前澳門對訪澳旅客的調查研究還處於較爲初步的階段，系統化深入分析旅客的需求和消費行爲的研究相對較少，對旅遊景點服務的質量評價資訊也較爲缺乏。爲此，非常有必要瞭解訪澳旅客的構成，以及旅客對澳門旅遊景點的價值期望與滿意度。

本研究總體目標爲：通過對訪澳旅客開展針對性的調查，以瞭解相關受訪者在旅遊景點的觀光訴求、旅遊觀光景點的選擇行爲、旅客在景點處的消費行爲以及對景點服務滿意度等內容。最終爲澳門旅遊產品體系的優化與服務質量提升提供較爲系統和深入的參考。

在研究過程中，課題組主要採取問卷調查的方法獲取分析之數據。具體操作流程上，課題組從 2011 年 6 月 18 日開始正式進行實地調查，7 月 4 日結束。調查範圍的確定，則主要是將澳門的旅遊景點按照空間接近性和人們通常的分區認知，分爲六個區域。課題組在每個區域發放問卷 386 份，以保證相關調查的結果能夠在 95%的信度，調查誤差不超過±5%。共計劃發放問卷 2316 份。爲保證信度，本課題組實際發放 2500 份問卷。

此次調查共回收有效問卷 2428 份。從發放地點來看，問卷調查地點覆蓋了大三巴區、新馬路噴水池區、媽閣區、新口岸區、外港區以及路氹區等六大片區。涉及包括大三巴牌坊、大炮臺、澳門博物館、議事廳前地、崗頂劇院、盧家大屋、媽閣廟、海事博物館、澳門旅遊塔、葡京、永利、澳門美高梅酒店、星際酒店及凱旋門、金沙娛樂場、漁人碼頭、金蓮花廣場、威尼斯人、新濠天地、澳門銀河綜合渡假城等共計二十個主要的旅遊景點。

各旅遊景點發放問卷的數量大體相當，從發放問卷的比例來看，基本做到每個旅遊景點的問卷平均發放。

在調查過程中，課題組將受訪旅客代表嚴格限定爲，剛從調查景點完成旅遊體驗，且願意參與調查的各類旅客。從而保證其在調查時能夠對所調查景點的體驗和感知具有準確性。爲此，

調查時，也對受訪者採取了事先的篩選，以保證調查結果的有效性。

在獲得了相關數據後，課題組分別對受訪旅客的人口學特徵、行爲特徵、旅客對景點服務品質的關注焦點，以及景點旅遊體驗對旅客重遊意願之影響進行了探討。最終將訪澳旅客對旅遊景點體驗品質關注焦點歸爲四個方面，即景區主題的吸引力、遊覽的便利性、環境的適宜性、景區的配套服務。上述四個維度的感知與旅客重遊該景點的意願之間形成正向關係。且影響旅客重遊意願的主要維度爲主題興趣度感知。

課題組還以此爲基礎將受訪旅客分爲四類，分別是寬容型旅客、環境敏感型旅客、遊樂體驗型旅客，以及效率關注型旅客。此次受訪旅客中，約 38.9%的受訪者爲遊樂體驗型旅客。其次爲寬容型旅客，約占受訪者人數的 27.7%，這部分群體對旅遊景點提供的服務品質關注度不高。效率關注型和環境敏感型的旅客比例大體相當，分別占受訪者的 18.5%和 14.8%。

課題組還通過對訪澳旅客在旅遊景點遊覽時的交通組織行爲分析，得到了旅客流量最大的十條景點連線，並對熱點線路旅客的交通組織行爲進行了深入探討。此外，課題組還通過分析得到十條旅客流量最大的跨區域線路，及不同區域旅客的主要交通方式。此外，受訪旅客在景點停留時從事的活動、在旅遊景點的停留時間，以及在旅遊景點的消費水準也進行了分析。

在旅客對旅遊景點的感知研究方面，課題組對旅遊景點的知名度感知進行分析，得到了澳門主要旅遊景點的知名度排名。其中具有最高知名度的五個旅遊景點依次爲：威尼斯人度假村酒店、大三巴、葡京酒店、媽閣廟、澳門旅遊塔。而在訪澳旅客對旅遊景點的到訪意願感知方面，到訪意願最強的前五個景點依次是：大三巴、威尼斯人度假村酒店、議事廳前地、葡京酒店，以及大炮臺。

課題組還分別從總體滿意度及重遊意願評價、景點服務要素滿意度評價，以及景點服務要素提升之診斷等三個方面對澳門旅遊景點的旅客品質感知進行了研究。

通過上述研究，課題組將澳門旅遊景點的發展特徵歸納爲九個方面，分別爲：1、澳門旅遊景點的旅客關注熱點集中；2、澳門旅遊景點知名度尚有提升空間；3、澳門旅遊景點間具有一定的個性差異；4、博彩類景點在創收能力上具有顯著優勢；5 澳門旅遊景點產品以基礎層爲主；6、訪澳旅客中遊樂體驗型旅客相對較多；7、特色化和趣味性對旅客重遊意願影響較大；8、旅遊景點服務要素質量較爲理想；9、旅遊景點的交通組織還有待優化。

在澳門旅遊景點未來的總體優化方向方面，課題組認爲應首先不斷提升旅遊景點的產品層次。其次，應分區域進行功能定位和主題包裝。第三，提升非博彩類旅遊景點的吸引力。第四，開展澳門旅遊景點交通專項規劃。最後，要以旅客需求爲基礎，優化景點配套服務。

最後，課題組還就澳門主要旅遊區域發展定位及優化方向進行了初步探討。課題組建議大三巴區應以澳門文化旅遊的地標景觀作爲未來發展的定位。新馬路噴水池區則應突出澳門文化風情休閒街區的形象。媽閣區應定位於澳門歷史文化深度體驗區。新口岸區及路氹區則較適合發展成爲現代博彩娛樂綜合體驗區。外港區可以考慮將發展主題定位於城市觀光及休閒區。

19.A Study of Tourists at Macau Scenic Spots

Principal Investigator: Prof. Aliana Leong

Faculty of International Tourism, Macau University of Science and Technology

Sponsor:

Tourism Development Council

Completion period (Y/M):

2011/8

Main Participants:

Li Xi, Leong Man Chang and research assistant

Introduction:

The unprecedented growth of Macao's tourism industry shows a significant trend of diversity. The continuous improvement of accessibility conditions in Macau makes traffic flow smoother and more convenient, thus the number of tourists visiting Macau is also rising. With the strategic positioning of Macau as a center of world tourism and leisure, scenic spots of the city are continuously being developed with more diverse themes. However, based on survey results from recently conducted studies, the degree of satisfaction of tourists with the different attractions needs to be further improved. For instance, through the sorting out of official information, the project research team found that in the past two years, an average of 12% of visitors have expressed that the scenic spots in Macau were deficient. However, the above-mentioned consumption surveys failed to further investigate in what way or how the visitors thought the scenic spots failed to meet their expectations or satisfy them.

Researches on tourists visiting Macau are still in a relatively primary stage and researches on systematic in-depth analysis of tourists' demands and consumption behaviors are relatively few, and the evaluations of service quality of scenic spots are also relatively inadequate. Therefore, it is necessary to understand the composition of the tourists visiting Macau, their value-expectations and satisfactions of the city's scenic spots.

The overall objectives of this study are: to understand the respondents' sightseeing demands with regards to scenic spots, scenic spots selection behaviors, consumption behaviors of tourists at scenic spots, and the service satisfaction of the scenic spots, through targeted surveys of the tourists so as to establish a systematic and in-depth reference for the improvement of Macau's tourism product system and the enhancement of the service quality.

A questionnaire survey was conducted by the project team for data collection and the specific operational procedures are as follows: the survey began on June 18, 2011 and ended on July 4. The scope of the survey was divided into six regions determined by the spatial proximity of scenic spots of Macau and the general partition awareness of people. Some 386 questionnaires were delivered in each area in order to ensure the 95% reliability of the survey results and the survey error was less than ± 5%. A total of 2316 questionnaires were delivered.

The feedback of valid questionnaires had a total of 2428. The questionnaire was delivered in six districts: the Ruins of St. Paul , Largo do Senado, Barra , Zona de Aterros do Porto Exterior, Outer Harbor and Cotai , including a total of 20 major scenic spots of the Ruins of St. Paul, Fortaleza do Monte, Museum de Macau, Largo do Senado, Largo de Santo Agostinho, Casa de Lou Kau, A-Ma Temple, Maritime Museum, Macau Tower, the Lisboa, Wynn, MGM, Star World Hotel, L'Arc, Sands Macau, Macau Fisherman's Wharf, Lotus Square, The Venetian, City of Dreams, Galaxy Resort, among others.

The number of questionnaire delivered to each scenic spot was roughly the same and was proportionally balanced equally in all districts.

During the survey, the project team strictly restricted the distribution of respondents to tourists who had just visited the scenic spot surveyed and were willing to participate in the survey to ensure the accuracy of the visitors' experience and perceptions of the scenic spot. Thus, a pre-screening of respondents was taken to ensure the validity of the findings.

After relevant information was obtained, the project team explored the demographic and behavioral characteristics of respondents, service quality of the scenic spots that the visitors focused on, as well as the impact of tourism experience on the willingness of a future revisit. The focus of the visitors to Macau on the experience quality was eventually summarized according to the following aspects: the attraction of the theme of scenic spots, flexibility of visiting, suitability of environment, and the matching services of the scenic spots. The perceptions of the above four dimensions had a positive correlation with the willingness of scenic spot revisit, and the main dimension that impact the willingness of revisit was the perception of the degree of interest in the theme.

The respondents were classified into four types on the basis of the above four dimensions as following: tolerance-based tourists, environment-sensitive tourists, entertainment-based tourists, and efficiency-concerned tourists. About 38.9% of respondents were entertainment-based tourists, followed by tolerance-based tourists with low concerns about the service quality of the scenic spots, accounting for 27.7% of the respondents. The proportions of efficiency-concerned tourists and environment-sensitive tourists were roughly the same, accounting for 18.5% and 14.8% of the respondents respectively.

Through an analysis of the tourists' traffic organizational behaviors, the ten tourism routes with the maximum flow of tourists were drawn and the traffic organizational behaviors of visitors at the hot tourism routes were analyzed. In addition, ten cross-regional routes with the maximum flow of tourists and the main mode of transports of visitors in different regions were proposed. Moreover, the activities of the tourists when visiting the scenic spots, length of stay, and the level of consumption at the scenic spot were also analyzed.

For the research on the tourists' perception of the scenic spots, the rank of the popularity of Macau's scenic spots was drawn through the analysis of the popularity perceptions of scenic spots. The five scenic spots with the highest popularity were: the Venetian Resort-Hotel, Ruins of St. Paul, Lisboa, A-Ma Temple, and Macau Tower. For the perception of visitors' arrival interest, the five

scenic spots of which the visitors have the strongest arrival perception are: Ruins of St. Paul, The Venetian Resort-Hotel, Largo do Senado, Lisboa, and Fortaleza do Monte.

The project team also researched the tourists' perception of service quality of the scenic spots from the three aspects of evaluation on overall satisfaction and willingness of revisit, evaluation on satisfaction with service elements of the scenic spots, and the diagnosis of the improvement of service elements.

Through the research, the features of the development of Macau's scenic spots were summarized as the following nine aspects: 1. The hot spots of Macau that the visitors were most concerned about were concentrated; 2. There are rooms for improvement of the popularity of Macau's scenic spots; 3. There are some certain diversities among the scenic spots of Macau; 4. The income-generating capacity of gaming scenic spots have significant advantage; 5. The tourism products of Macau remain base-oriented; 6. There are more entertainment-based visitors to Macau; 7. Characterizing and being interesting have a greater impact on the visitors' willingness for a future revisit; 8. The quality of scenic spots' service elements is comparatively desirable; 9. The traffic organization of scenic spots needs to be improved.

For the future overall direction of development of Macau' scenic spots, the project team proposes that the level of tourism products should be improved continuously first. Second, sub-regional function positioning and theme package should be done. Third, the attraction of non-gaming scenic spots should be improved. Fourth, the special transportation planning of the Macau's scenic spots should be developed. Finally, based on the demand of the visitors, the matching services of the scenic spots should be optimized.

Finally, the project research team also conducted preliminary studies on the development positioning and optimal direction of the major tourism regions of Macau. The project research team suggests that the Ruins of St. Paul District should focus on the future development of Macau's landmarks and landscape of cultural tourism. Largo do Senado District should emphasize the image of cultural, custom and leisure streets of Macau. Barra District should be positioned as the area that captures the deep historical and cultural experience of Macau. Zona de Aterros do Porto Exterior and Cotai District are more suitable for development into an integrated experience of modern gaming and entertainment districts. Outer Harbor District could be developed as an area designed for contemporary sightseeing and recreation.

20.“澳門元素”在旅遊紀念品設計中的應用研究

負責人：黃光輝
澳門科技大學　人文藝術學院

資助機構：

澳門基金會

完成時間(年／月)：

2011 年 9 月

主要參加者：

黃光輝、孫瑱

課題簡介：

長久以來，澳門給人們留下了“賭城”的單一形象，然而，作爲一座中西文化交融的城市，澳門有著中國境內現存年代最遠、規模最大、保存最完整的歷史城區，中西建築在此相互輝映。澳門政府旅遊局將 2006 年定爲澳門世界遺產年，以打造澳門“文化之都”的形象，成爲吸引旅客的最具潛力的旅遊資源，爲澳門旅遊業帶來了新的契機。作爲是一個日益國際化的旅遊城市，澳門正努力實現旅遊產業多元化，走博彩娛樂、休閒度假、文化旅遊與會展旅遊相結合的道路。

《澳門文化遺產旅遊開發研究》的資料顯示，休閒旅遊和參觀文化遺產的遊客在來澳旅客中占很大比例，且在最近幾年呈上升趨勢。同時，該研究發現遊客認爲在購買紀念品方面的選擇性較小。由此可見，文化遺產對來澳旅客有著強大的吸引力，旅遊紀念品的設計開發還有很大的空間。本專案以旅遊紀念品中的“澳門元素”爲主要研究物件。所謂“澳門元素”是指能代表澳門特色，並在視覺形象上獨一無二、具有本土特徵的視覺圖形。“旅遊紀念品”是指遊客在旅遊地購買的能體現當地文化特色的、具有紀念價值的產品。旅遊紀念品的品質對旅遊地形象建構與傳播具有重要意義。

本項目在理論層面上，爲旅遊紀念品設計元素的選取提供理論依據。在實踐層面上，首先，從設計角度出發，整理目前旅遊紀念品設計中的視覺圖形的表現方法，尋找可行性方法或途徑，將澳門元素轉化成能夠充分體現澳門文化內涵、特徵明確、具有美感的視覺圖形；其次，結合目前的旅遊紀念品的設計理念與製作工藝，探討在實際的設計與製作過程，如何將已經轉化成視覺圖形的澳門元素整合入旅遊紀念品的設計中，爲澳門旅遊紀念品的開發設計提供理論支撐以及現實探索。

20.Application of "Macau Elements" in the Design of Souvenir

Principal Investigator: Huang, Guanghui
Faculty of Humanities and Arts, Macau University of Science and Technology

Sponsor:
Macao Fundation
Completion period (Y/M):
2011/9

Main Participants:
Huang Guanghui,Sun Zhen

Introduction:

For a long time, "gambling city" is the only image Macau left. Yet, being a city with both Chinese and western culture, Macau remains the oldest, largest and most complete historical cities in China. In order to create the image of "cultural city" and push the development of Macau tourism industry, Macau government tourist office named 2006 as "Macau world heritage year". As an increasingly international tourism city, Macau is trying to realize the diversification of tourism industry and the integration development of entertainment gabling, leisure vacation, cultural tourism and exhibition tourism.

According to the data of < Macau cultural heritage tourist development research>, leisure tourist and cultural heritage tourist accounted for a large proportion of Macau inbound visitors, and showed an ascendant trend in recent years. Meanwhile, the research found visitors have limited selection in tourism souvenirs. Thus, we may conclude that the cultural heritage has a strong attraction to Macau inbound visitors; moreover, there is still a large space for tourism souvenirs design.

"The Macau element" of the tourism souvenirs is the main research object of this project. "The Macau element" refers to the unique visual graphics that may represent Macau local chrematistics. "Tourism souvenirs" refers to the products that could be brought during tourism, contains commemorative value and reflects local characteristics. The quality of tourism souvenirs has important significance to the tourism destination image construction and communication.

The project, on the theoretical level, provides theoretical basis to the selection of the tourism souvenirs design elements. On the practical level, the project may: firstly, from the point of view of design, arrange the tourism souvenirs design visual graphic expression method, explore a feasible method or approach to transfer Macao elements into clear and aesthetic visual graphics that can fully reflect the connotation of Macao culture; secondly, combine the present tourism souvenir design concepts and manufacturing techniques, explore how to integrate the visual graphic into Macao tourism souvenir design during the practical design and production process. Thus, the project provides both theoretical support and practical exploration to the development of Macao tourism souvenir design.

21.月球表面微量水探測設備研製及核能譜分析技術研究

負責人：許敖敖
澳門科技大學　資訊科技學院

資助機構：

科學技術發展基金

完成時間(年／月)：

2011 年 6 月

主要參加者：

許敖敖、尤眾、董鐵礦、祝夢華、程宇、常進、馬濤

課題簡介：

本項目研究月球表面的中子和伽瑪能譜。主要內容包括三部分：

(1) 模擬月球表面中子能譜。我們用蒙特卡羅輸運程序 Geant4 計算了從月球表面洩露的中子能譜。 計算結果表明月壤中的水含量對中子能譜的影響很大。 此外，我們還研究了乾燥月壤表面的中子流量與鐵，鈦含量之間的關係，並用中子輸運理論成功解釋了中子譜的特點。

(2) 研製小型軌道伽瑪譜儀。 我們跟南京紫金山天文台合作研製了一台微型伽馬射綫譜儀. 各項測試結果表明其性能滿足或好於預期的設計指標。

(3) 分析嫦娥-1 號伽馬射線數據。我們建立了一整套分析伽瑪能譜的方法，並把這些方法應用於嫦娥-1 號伽瑪能譜數據的解析。我們得到了月球表面天然放射性元素的分布，研究了天然放射元素分布與月球高程之間的關係。我們發現高地區域的放射性同位素含量與地形之間具有反相關關係，這些結果對於理解月球表面的演化歷史具有重要意義。

21.Development of the detector for minor water on the lunar surface and the methodology of analyzing nuclear spectrum

Principal Investigator: Xu, Aoao

Faculty of Information Technology, Macau University of Science and Technology

Sponsor:

Science and Technology Development Fund, MSAR

Completion period (Y/M):

2011/6

Main Participants:

Aoao Xu, Zhong You, Tiekuang Dong, Menghua Zhu, Yu Cheng, Jin Chang, Tao Ma

Introduction:

The main purpose of this project is to investigate the neutron and gamma ray spectroscopy on the lunar surface. The main contents are listed as follows:

(1). To simulate the neutron spectrum on the lunar surface. The neutron leakage fluxes from the lunar surface are calculated by the Monte Carlo transport code based on Geant4. The results show that the water on the lunar surface plays important roles on the neutron spectrum. In addition, the relationship between the neutron leakage fluxes and the contents of Fe and Ti in the dry regolith is also investigated. The characters of the neutron spectrum have been interpreted successfully by the neutron transport theory.

(2). To develop a small orbital gamma ray spectrometer. Under the cooperation with the Purple Mountain Observatory, we have completed a gamma ray spectrometer. The performance indexes reach or exceed the expected ones.

(3). To analyze the gamma ray data measured by the CE-1 gamma ray spectrometer. The methods of analyzing the gamma ray spectrum has been established. These methods have been used to analyze the CE-1 gamma ray data. The global distribution of the natural radioactive elements on the lunar surface has been mapped, and the relationship between the concentration of natural radioactive elements and the altitude of lunar surface has been analyzed. It is found that there is an inverse correlation between the concentration of natural radioactive elements with the altitude of the lunar surface in the highland region. These discoveries are very useful to understand the evolution of the lunar surface.

22.嫦娥一號探月衛星資料的分析，處理，應用與研究

負責人：唐澤聖、歐陽自遠
澳門科技大學　資訊科技學院/太空科學研究所

資助機構：

科學技術發展基金

完成時間(年／月)：

2011 年 2 月

主要參加者：

唐澤聖、歐陽自遠、黃漢青、蔡占川、祝夢華、吳昀昭、孫延奎、梁研延、黃遠雄、葉夢傑、陳偉及碩士研究生等。

課題簡介：

本項目由澳門科技大學，與中國科學院國家天文臺聯合申請，進行嫦娥一號探月衛星數據的分析，處理，應用與研究，獲澳門科技發展基金支持，於 2008 年 11 月啓動，2011 年 2 月結題。

2009 年 3 月，獲國家探月工程中心批準，並得到國家天文臺的大力支持，本專案獲得了嫦娥一號 8 種有效載荷中的 6 種探測數據，是國內各研究機構中獲得數據種類最多的單位。

本項目所取得的主要研究成果如下：

研究實現了 CCD 立體相機數據的快速自動無縫拼接，獲得了全月面影像圖。

使用層次多結點樣條曲面爲數學工具，構造出高精度的全月面高程圖形（0.06250×0.06250）。

伽瑪譜儀數據分析方法研究及月表放射性元素分佈圖的製作。對放射性元素在月面的分佈特點及其成因進行了分析，得出了月面的放射元素分佈與地形之間存在著強相關性等有科學價值的新認識。

干涉成像光譜儀探測數據的分析及月表元素含量和礦物成份分佈的研究。生成了首幅全月表礦物吸收中心分佈圖。

基於圖形處理器（GPU）的高性能磁流體力學數值模擬演算法，獲得月球等離子體環境的自洽場。

高能粒子探測器和低能離子探測器數據處理模型的建立及其隨時空分佈圖的製作。

在取得上述研究成果的同時，建立起一支月球數據處理與分析的人才隊伍，共計約 10 餘人。發表論文 40 餘篇。

22.Analysis, processing, application and research on exploration data of Chang'E-1 mission

Principal Investigator: Tang, Zesheng; Ouyang, ziyuan
Faculty of Information Technology/Space Science Institute, Macau University of Science and Technology

Sponsor:
Science and Technology Development Fund, MSAR

Completion period (Y/M):
2011/2

Main Participants:
Tang Zesheng, Ouyang ziyuan, Wong Honcheng, Cai Zhanchuan, Zhu Menghua, Wu yunzhao, Sun yankui, Liang yanyan, Huang yuanxiong, Ye Mengjie, Chen wei and masters, etc.

Introduction:
This project was applied collaboratively by Macao University of Science and Technology (MUST) and National Astronomical Observatories, Chinese academic of Sciences (NAOC) and approved by Science and Technology Development Fund in Macao. It aims at the processing, analysis, application and research of the exploration data of Chang'E-1 Mission and commenced in November, 2008 and ended in February, 2011.

In March 2009, after approved by National Lunar Exploration Program Center and supported by National Astronomical Observatories, this project got the exploration data of 6 payloads.

The major achievements of this project are shown as follows:

1. Research and develop the algorithm for the fast automatic stitching method of CCD stereo images. The global lunar surface images are obtained.
2. Using the hierarchical many-knot spline surface as the mathematical tool, the global lunar surface DEM model （0.0625°×0.0625°）is generated.
3. Research on analytical method of gamma ray spectral data and the distribution map of radioactivity elements. After the analysis for the distribution features and generation mechanisms of the radioactivity elements, we have got the valuable conclusion that there exist strong correlation between the radioactivity elements distribution and the topography.
4. Research on analysis of Interference Imaging Spectroradiometer (IIM) data and the distribution of mineral compositions. The global lunar surface mineral absorb center distribution map is generated.
5. Using the high performance digital simulation algorithm based on GPU for magnetohydrodynamic, the plasma environment near the moon is obtained.
6. Establishment of the data processing model and generation of the spatial and temporal distribution map for High Energy Particle Data (HPD) and Solar Wind Ion Data (SWID).

Accompanied with the research achievements mentioned above, a research team more than 10 persons has been established and more than 40 papers have been published.

23.澳門在全球化和東西方文化交流中的歷史地位、獨特作用與現實意義研究

負責人：許敖敖
澳門科技大學　社會和文化研究所

資助機構：

澳門基金會

完成時間(年／月)：

2011 年 12 月

主要參加者：

錢乘旦、臧小華、彭小瑜、許平、徐健、張雄、程美寶、周湘、李愛麗、顧衛民、黎曉平、何志輝、婁勝華

課題簡介：

1、全面回顧澳門在全球化起步階段和東西方文化交流過程中的歷史地位；

2、系統總結澳門在全球化起步階段和東西方文化交流過程中的獨特作用；

3、積極探索澳門的歷史經驗在全球化和東西方文化交流過程中的現實意義。

23.Research on Historic Position, Special Function and Real Significance of Macao in the process of Globalization and Cultural Interflow between Eastern and Western World

Principal Investigator: Xu, Aoao

The Institute for Social and Cultural Research, Macau University of Science and Technology

Sponsor:

Macao Foundation

Completion period (Y/M):

2011/12

Main Participants:

Qian chengdan, Zang xiaohua, Peng xiaoyu, Xu ping, Xu jian, Zhang xiong, Ching maybo, Zhou xiang, Li aili, Gu weimin, Li xiaoping, He zhihui, Lou shenghua

Introduction:

1. To review completely the historical position of Macao during the beginning stage of globalization and the process of exchanging between eastern culture and western culture.

2. To summarize systematically the unique function of Macao during the beginning stage of globalization and the process of exchanging between eastern culture and western culture.

3. To explore actively the practical significance of historical experience of Macao during the process of globalization and exchanging of eastern culture and western culture.

24.大三巴哪吒廟入“世界遺產”名錄之文化內涵初探

負責人：胡國年
澳門科技大學　通識教育部

資助機構：

澳門基金會

完成時間(年／月)：

2011 年 9 月

主要參加者：

胡國年

課題簡介：

1.探索中國傳統文化中的“哪吒崇拜文化”之內涵；2. 道教的哪吒廟與天主教的聖保祿修道院百年共存共榮的和諧價值。

其內容包括大三巴哪吒廟的歷史及建築、其崇拜文化之尋根、其古藉資料與民間傳說之述析、其祭祀與演藝活動、其廟內法器及圖騰之解碼、其值理會社團功能之闡述、其與大三巴共存的歷史及曠世影響等等。

24.A Study on the Cultural Implication of the Inscription of Ruins of St. Paul and Na Tcha Temple on World Heritage List

Principal Investigator: Wu Kuoknin
Department of General Edncation, Macau University of Science and Technology

Sponsor:

Macao Fundation

Completion period (Y/M):

2011/9

Main Participants:

Wu Kuoknin

Introduction:

1. To examine the implication of “Na Tcha worshipping” in traditional Chinese culture.

2. To investigate into the value of the peaceful co-existence of the Taoist Na Tcha Temple and the Catholic St. Paul’s over the past centuries.

25.橫琴開發與澳門商務休閑旅遊發展研究

負責人：梁文慧
澳門科技大學　國際旅遊學院

資助機構：

澳門基金會

完成時間(年／月)：

2011 年 2 月

主要參加者：

馬勇及研究助理

課題簡介：

2009 年爆發的全球金融危機使外向型經濟特徵十分明顯的澳門遭受重創，澳門經濟社會的發展急需進行產業經濟結構調整與升級，擺脫單一的博彩業發展多元化經濟將是澳門應對金融危機並促進經濟健康持久發展的必然選擇。隨著會展場館的不斷完善，會展業在澳門的發展已經初具規模。大量的商務遊客無疑將會爲澳門旅遊經濟的發展帶來更多的機遇。對於商務遊客來說，除了爲其提供較爲理想的工作環境之餘，高等級與多樣化的商務休閒場所與服務也必不可少。橫琴島的珠澳合作開發將爲澳門商務休閒旅遊的發展提供更爲廣闊的舞臺，而且對澳門巨大商務休閒旅遊市場的開發又必將推動橫琴島的發展。

區域旅遊開發與合作是當今旅遊學術界和業界十分關注的話題之一。國內外眾多學者都對該問題進行了理論或實證性的探討。本研究的主要目的在於借助國際化的研究視野，總結跨區域旅遊合作開發中的常見模式與成功經驗，並結合實際情況，探討澳門會展及商務活動如何借助聯合開發橫琴的機遇，進一步完善商務休閒旅遊設施及服務的配套，最終促進澳門的會展商務活動品質與品牌效應實現較大幅度的提升。

從國內相關研究成果來看，目前區域旅遊發展的研究熱點集中於兩個方面，其一是利益相關者，特別是居民感知方面的研究。其二是對區域旅遊開發的經濟、社會影響的分析以及保障體系構建的研究。專案組認爲橫琴開發與澳門商務休閒旅遊的開發之間需要研究的重點問題，一方面需要從居民以及遊客的態度與期望的角度探討橫琴旅遊的發展方向；另一方面需要從旅遊影響的角度探討如何提升橫琴開發對澳門商務休閒旅遊發展的正面影響。

在澳門回歸祖國十周年之際，國務院將隸屬於珠海的橫琴島設立爲橫琴新區以支援澳門建設，並相繼組織編制了《橫琴總體發展規劃》並將其初步實施，這爲橫琴未來旅遊開發提供良好的條件和絕佳的機會。橫琴毗鄰港澳，具有得天獨厚的旅遊區位優勢，同時橫琴具有優良的旅遊資源，爲發展海濱旅遊和海島旅遊奠定了堅實的基礎。橫琴旅遊開發尚處於起步階段，雖然擁有良好的發展環境和發展政策優勢，但仍然面臨著諸多問題和制約因素，如旅遊產業要素不夠完善、旅遊品牌尚未形成等。爲此，橫琴在旅遊發展過程中應該注重充分發揮優勢條件，通過充分激發利益相關者的參與熱情，以需求爲導向實施產品開發。同時，應借助區域合作的力量，通過區域優勢互補來形成區域品牌，快速提升知名度和旅遊吸引力。

從橫琴居民對旅遊開發的態度及期望來看，受訪居民中的大部分對橫琴島開發情況有一定

瞭解。有 86%的受訪者表示旅遊業是橫琴最具有潛力的發展方向，有接近 70%的調查物件表示橫琴具有環境優勢的地方都應該開發爲旅遊度假目的地。

專案組通過分析資料認爲大部分的受訪居民對於橫琴旅遊所帶來的經濟收益和社會福利水準的上升有較高的期望，如在旅遊開發對收入增長、就業機會的增加、投資機會的增加以及城市交通和文化設施的優化等方面，受訪居民均表現出了較高的認同。而在旅遊開發所帶來的物價上漲以及社會治安等問題方面，受訪居民則表現出了較爲集中的擔心。

利用統計分析的方法，專案組認爲受訪居民對於橫琴旅遊開發的期望大體可以歸納爲三個方面，其一爲社區基礎設施及外界交流的改善；其二爲環境及文化的保護與傳承；其三，生活品質的提升。

最能影響居民參與發展旅遊態度的因素是對生活品質的提升期望，其次是旅遊發展對改善基礎設施及對外聯繫的期望，而與文化環境的保護與傳承對居民支持和參與發展旅遊的態度影響相對較小。

爲此，在發展區域旅遊時，應積極向當地居民宣傳旅遊開發對於生活品質的提升以及對區域基礎設施和對外聯絡條件的優化，從而讓旅遊開發能夠得到更多居民的支持和參與。

在居民參與橫琴旅遊開發的形式方面，較爲認可的形式包括參與橫琴的環境保護、將發展方案向居民公開，提升居民的受教育程度、居民應該有權選擇橫琴旅遊發展的方向、設施與居民共用、優先雇傭本地居民以及鼓勵居民參與旅遊業投資等。但是，不同年齡段的居民在參與旅遊開發的途徑期望方面有一定的差異性。

受訪遊客在到訪橫琴的旅遊目的上，以調節心情、回歸自然、增進家人感情、欣賞景觀以及擺脫壓力等爲主。其次的原因包括：獲得生活樂趣、忘掉煩憂、娛樂消遣、品味小吃、體驗不同的生活。

各種遊客來橫琴旅遊的出遊動機可以分爲三類，一類爲以公務或社交所需出遊；第二類爲以放鬆身心爲主的出遊動機；第三類爲休閒和差異化生活體驗爲主的出遊動機。按照上述出遊動機可以將遊客分爲四類。其中第一類爲放鬆身心類的遊客，第二類爲休閒體驗類的遊客，第三類屬於動機不明朗的遊客，第四類屬於公務社交類的遊客。

進一步通過方差分析可知，不同職業的遊客間在出遊動機上有一定差異。具體而言，政府職員、醫生、學生等職業的人士以放鬆身心爲主要出遊動機。私企業主、企業雇員、教職員、自由職業者等職業人士，在到訪橫琴的動機上，沒有特別的偏好。而科研人士則更爲偏向於以公務社交作爲出遊的動機。

在服務設施的滿意度方面，受訪遊客對於橫琴旅遊服務，在自然景觀、社會治安、周邊環境、旅遊的人數、居民對遊客的態度、餐飲設施、餐飲種類、景點、旅遊消費價格以及項目的參與和體驗性等十個方面的滿意度評價相對較高。滿意度評價較低的五個方面爲：住宿條件、遊客中心、特色紀念品、購物設施及服務以及解說系統。上述滿意度的評價內容可以進一步歸納爲三類。第一類爲旅遊配套服務的滿意度、第二類爲旅遊產品的滿意度、第三類爲旅遊環境的滿意度。項目組發現，遊客的重遊意願與旅遊環境的滿意度最相關、其次爲旅遊產品的滿意度以及配套服務的滿意度。爲此，要提升遊客重遊的意願需要著重在旅遊環境的改進方面加大研究和投入。

爲了更爲科學探討橫琴旅遊發展與澳門商務休閒旅遊發展之間的關係，並爲橫琴旅遊發展

制定較爲科學客觀的戰略建議。項目組於2010年7月份至8月份間，選取澳門地區及內地從事旅遊或與澳門旅遊業發展息息相關的各個部門、專業團體、機構的 57 位元專家作爲調查對象進行了專家訪談。

從相關專家的視角來看，橫琴開發將是澳門商務休閒旅遊發展的契機，同時也是澳門經濟產業結構轉型和調整的重要利好。

同時，受訪專家還認爲旅遊資源賦存量、旅遊資源價值高低、旅遊管理方法、旅遊項目的設計與創意、旅遊專案及產品的多樣性、社區居民參與旅遊規劃與開發、參與未來旅遊管理中、參與旅遊經營活動中對於橫琴島旅遊開發非常重要。

受訪專家在橫琴開發與澳門商務休閒旅遊發展所需的支持性因素方面，觀點具有較高的一致性，其中澳門特區政府的產業發展規劃、澳門對橫琴開發的資金支援、澳門相關行業的發展態勢、以及基礎設施和合作研究是專家認爲在跨區合作發展中需要具備的條件。

在綜合利益相關者的意見基礎上，專案組提出了橫琴旅遊開發以及澳門商務休閒旅遊發展的戰略發展目標以及總體佈局。並從政策法規保障、財政金融保障、旅遊市場保障、旅遊人力資源保障以及旅遊技術保障等角度提出了橫琴開發與澳門商務休閒旅遊發展的保障體系架構。上述研究成果爲下一階段的綜合研究打下了堅實的基礎。

25.A Fundamental Research on Hengqin Island Development Vis- à -Vis the Growth of Macao Business and Leisure Tourism

Principal Investigator: Prof. Aliana Leong

Faculty of International Tourism, Macau University of Science and Technology

Sponsor:

Macao Fundation

Completion period (Y/M):

2011/2

Main Participants:

Ma Yong and research assistant

Introduction:

The outbreak of the global financial crisis in 2009 had brought about obvious heavy losses in Macao's export-oriented economy. In order to cope, Macao urgently needs to adjust the development of its economic structure and industry and rely entirely on the gaming industry. Macau needs to diversify its economic development. With the constant improvement of exhibition venues, the burgeoning of Macao's M.I.C.E. industry has begun to take shape. The price sensitivity of business travelers is lower than regular tourists, and their strong costs power is expected to contribute to Macao's economic recovery rapidly. It is no doubt that the large number of business visitors to Macao will bring supplementary economic development opportunities. In addition to more than ideal working environment, business travelers also require a higher level and more varied 'business and leisure' establishments. Although Macao business and leisure tourism development is not lacking in funds for development, the limited land resources restrict its expansion. Therefore, in order to properly develop leisure tourism, regional growth will be a key factor to success for Hengqin tourism development. The Cooperation Development of Hengqin Island will be a broader stage for the advancement of Zhuhai-Macao business and leisure travel. Moreover, a considerable business and leisure tourism market will consequently promote the development of Hengqin.

Regional tourism development and cooperation is a vital topic for both the academia and the industry. In recent years, more researches on inter-regional cooperation in tourism have been conducted both domestically and internationally. The main purpose of this study can be summarized as the development of cross-regional tourism cooperation and the successful experience of the common model based on international perspectives. This study aims to look into the actual business activities of Macao M.I.C.E. and the joint development of Hengqin, and how to use this opportunity to further improve business and leisure tourism facilities and services; imrpove support services, and ultimately promote Macao M.I.C.E. business quality and brand effect to achieve a more substantial upgrade.

From the domestic point of view, most current researches are focused on regional tourism development from two aspects: one is the stakeholders' or the residents' perception and the second is the economic development of regional tourism, social impact analysis and security systems. The research

panel believes that the key issues that the Hengqin development and tourism growth of Macao business and leisure needs are: to explore the residents and visitors' attitudes and expectations towards Hengqin tourism development; as well as the need to determine how to enhance the positive effects of Macao business and leisure tourism development based on Dictionary – based oView detailed dictionary Hengqin development perspectives.

During the 10th anniversary of Macao's return to China, the State Council set up the New Hengqin Zone in order to support the further construction of Macao. It has also organized the preparation and the initial implementation of the "Hengqin Overall Development Plan" which allows favorable conditions and perfect opportunity for Hengqin tourism development. Hengqin is adjacent to Hong Kong and Macao, and this unique location tourism advantage, coupled with excellent tourism resources provides for a solid foundation of a waterfront and island tourism. Hengqin tourism development is still in its infancy. Although it has a good development environment and policy advantages, it still faces many problems and challenges, such as: imperfect elements of the tourism industry, and unestablisheded tourism brand. To this end, Hengqin should fully play its advantages, fully inspire stakeholders' enthusiasm, and implement demand-oriented product development. Meanwhile, the power should be through regional cooperation to form a rapidly increased tourism attraction.

Most residents have a certain understanding of Hengqin's development. Some 86% of residents have a very positive attitude towards tourism utilization and they believe that the travel and tourism industry will become one of the most advantageous industries in Hengqin. Approximately 70% of residents expressed that places with environmental advantages of Hengqin should be developed as tourism destinations.

A majority of residents have higher expectations on the economic benefits of tourism and the social welfare increases, such as revenue growth in tourism development, increased employment opportunities, investment opportunities and the expansion of culture facilities and urban transport. On the contrary, the respondents showed more concerns on rising prices, social security and other issues.

The residents' expectations on Hengqin development can be summarized in three parts: the improvement of the community infrastructure and regional communication; environment and culture protection, heritage and better quality of life.

The most influential factor on Hengqin development is the enhancement of the quality of life, followed by the development of tourism infrastructure and outreach to improve the environment and cultural heritage protection, whereas the support and participation of tourism development is relatively insignificant.

Therefore, regional tourism development should actively publicize the enhancement of tourism development, better life quality and expansion of regional infrastructure to the local residents so that they will more openly support and participate in its growth.

On the aspect of Hengqin residents' participation of tourism development, several measures would be to participate in Hengqin's environment protection, make known to the public the "Hengqin Environmental Protection Plan", and enhance the residents' awareness level. The residents should have

the right to choose the direction of Hengqin's tourism development; facilities should be shared with the residents; priority should be given in the employment of local residents and encourage residents to participate in tourism investments. Different age groups have differences in their expectations in tourism development.

Tourists' purposes of the visit mainly include: to regulate their mood, return to nature, enhance family feeling, enjoy the landscape and to get rid of stress. These are followed by: access to amenities, forget worries, entertainment, taste snacks, and for different life experiences.

The visitors can be divided into three types: for public or social needs, for relaxation, and for leisure and new experience. In accordance to the mentioned travel motivation, tourists can be divided into four categories. The first category are the relaxing tourists; the second are those looking for casual experience; the third type are those with uncertain motivation, the fourth are the social communication tourists.

Further variance analysis shows that tourists with different occupations in the travel motivation have certain differences. Specifically, government employees, doctors, students and other professionals consider relaxing as their main travel motivation. Private company owners, corporate employees, staff, freelancers and other professionals have no particular preferences in visiting Hengqin. Scientific researchers are in favor of public social activity as their travel motive.

On the services satisfaction, the respondents have relatively high satisfaction rating in ten aspects: the natural landscape, social security, surroundings, the number of tourists, the residents' attitudes towards visitors, catering facilities, food and beverage categories, tourist attractions, and consumer prices. Lower satisfaction is rated in five areas: accommodation, visitor centers, souvenirs, shopping facilities and interpretation system. The above satisfaction evaluation can be further classified into three categories: support services, tourism products, and tourism environment. Following with the research results, the most relevant factor for tourists' willingness to visit again is the tourism environment, followed by satisfaction over tourism products and support services. To this end, a focus on tourism environment improvements are needed in order to encourage tourists to revisit

In order to further explore the correlation between Hengqin tourism development and Macao's business and leisure tourism, a total of 57 experts from various departments, and institutions closely related to tourism were invited from July and August 2010 to develop a more scientific and objective strategic advice,. Experts generally agreed that the development is favorable to Macao's industrial economic restructuring and upgrading, and at the same time provides very positive conditions for Macao business and leisure tourism growth.

Meanwhile, experts generally agreed that the overall taste of Hengqin Island tourism development is important; the stock of its tourism resources, enabling the amount of the tourism resources value, and the size of Hengqin Island are significant. Most experts believe that Hengqin tourism management methods and measures, product publicity and promotion, tourism and creative design projects, tourism projects and the products diversity for the Hengqin development are extremely critical. Professionals believe that the number and size of tourist attractions for tourism development are very important. The tourist attractions and service quality of Hengqin tourism development are also essential, including

entertainment, accommodation, dining, shopping, rest facilities, including infrastructure and support facilities.

In the consolidated views of stakeholders, the panel proposed strategic development objectives and overall layout of Hengqin business and leisure tourism development and Macau's tourism, in terms of policies and regulations, fiscal and financial security, protection of the tourism market, tourism, human resources, security and tourism technical support. The above results have laid a solid foundation for future studies.

26.澳門及香港常用中藥者血液的重金屬含量之分析研究

負責人：崔紹漢
澳門科技大學 澳門藥物及健康應用研究所

完成時間(年／月)：

2011 年 2 月

主要參加者：

崔紹漢、林偉基、黃宜厚、司徒炎棠、趙幸怡、方明耀、趙綺雯

課題簡介：

中醫藥已成爲除西方醫學以外最常用之治療體系，其使用率在全世界正不斷增加，而中藥的療效亦日漸被肯定。雖然很多文獻肯定中醫藥的療效，但經常有關於服食中藥後出現重金屬中毒的報導，主要是鉛、汞、砷及鎘中毒。中藥的使用者除了患病人士外，亦有不少人爲了調理身體而服食中藥，無論什麼原因，人們對中藥的需求正不斷上升，愈來愈多人關注服用中藥的安全問題。

此外，由於用作治療的中草藥不下數百種，加上中藥複方有機會含有少量的重金屬(例如朱砂)作爲產生療效的一部分，因此測試每種中草藥或中藥配方以評估重金屬中毒的風險是相當複雜的。

自 2010 年 9 月起至 2011 年 2 月間，本研究組從 8 間不同診所共收集了 85 名常服用中藥者之血液樣本，測試並評估經常服食中藥人仕血液的重金屬水平，從而了解服食中藥會否引致身體的重金屬水平升高。所有參加者均持續每天服用中藥不少於 3 個月，最長達 5 年以上。他們於研究開始前先與中醫師會面，以決定是否適合參加此研究，並填寫問卷和被抽取 4 毫升的血液作重金屬測試。結果顯示除 1 名參加者外，其他 84 名參加者血液中的重金屬水平皆合乎標準。該名 77 歲參加者血液中砷的含量高出正常水平 38% (401 nmol/L)，在測試前他服食中藥略少於 1 年及每天服中藥 2 次，問卷分析發現他經常進食深海魚，可能因而令血液中無毒的有機砷含量增加。研究人員建議他暫停進食深海魚一個月，然後再抽血測試。第二次血液化驗結果顯示其血液中的砷含量已回復正常水平 (110 nmol/L)。

另一方面，我們亦抽取了 80 種中藥濃縮藥粉及 80 種相對應的中草藥樣本作重金屬測試，以評估中草藥及中藥粉之重金屬污染情況。在中藥濃縮藥粉方面，80 種中藥的重金屬含量都在標準範圍內，沒有發現超標的情況。至於中草藥方面，80 種中草藥的汞水平全都合乎標準，其中 12 種中草藥的砷、鎘或鉛含量高於標準。再重新測試由另一供應商提供的這 12 種中草藥，情況與第一批相似，除汞的含量外，其他重金屬的含量有高於標準的情況。

總括來說，中藥重金屬污染與常用中藥者體內重金屬含量超標是沒有直接關係的。此外，結果亦顯示全部中草藥濃縮藥粉的四種重金屬含量都沒有超出參考標準的上限，相信是中草藥於優良生產規範(GMP)處理製成濃縮藥粉的過程中被淨化，重金屬含量亦大大減低。

附表:

表一：人體血液砷、鎘、鉛、汞含量的正常參考值

重金屬種類	正常參考值	單位
砷	< 310	nmol/L
鎘	非吸煙者：< 27 吸煙者：< 54	nmol/L
鉛	< 1.50	umol/L
汞	< 77	nmol/L

表二：被檢測的 80 款中藥濃縮藥粉及其相對應的中草藥名單如下：

辛溫解表	麻黃	桂枝	紫蘇	生薑
	白芷	荆芥	防風	蒼耳子
	辛夷花			
辛涼解表	薄荷	牛蒡子	葛根	柴胡
	桑葉	菊花	蔓荆子	蟬蛻
清熱瀉火	石膏	知母	天花粉	
清熱燥濕	黃芩	白蘚皮		
清熱涼血	生地	赤芍	丹皮	
清熱解毒	金銀花	連翹	公英	半枝蓮
	白花蛇舌草	千層紙		
祛風濕	獨活	桑寄生		
芳香化濕	蒼術	厚樸	藿香	砂仁
利水滲濕	茯苓	車前子	澤瀉	
理氣藥	陳皮	枳殼		
消食藥	山楂	生穀芽		
活血化瘀	川芎	延胡	鬱金	丹參
	益母草	雞血藤	川牛膝	
化痰止咳	法半夏	浙貝	桔梗	前胡
止咳平喘	北杏			
安神藥	龍骨	牡蠣	夜交藤	柏子仁
平肝息風	僵蠶			
補氣藥	黃耆	白術	黨參	山藥
	甘草	大棗		
補陽藥	仙靈脾	杜仲	川斷	
補血藥	首烏	白芍		
補陰藥	北沙參	麥冬	玉竹	杞子
	旱蓮草	女貞子		

收澀藥	山茱萸	浮小麥		

表三：12 種超標中草藥的兩次化驗結果：

分析項目	砷		鎘		鉛		汞	
參考標準	2.0 mg/kg		0.3 mg/kg		5.0 mg/kg		0.2 mg/kg	
批次 / 樣本	第一批	第二批	第一批	第二批	第一批	第二批	第一批	第二批
川斷	<2.0	<2.0	0.5	0.8	<5.0	<5.0	<0.2	<0.2
川牛膝	<2.0	<2.0	1.3	1.2	<5.0	<5.0	<0.2	<0.2
半枝蓮	<2.0	<2.0	0.7	0.5	5.2	<5.0	<0.2	<0.2
玉竹	<2.0	<2.0	0.4	0.4	<5.0	<5.0	<0.2	<0.2
白花蛇舌草	<2.0	<2.0	2	1.9	<5.0	<5.0	<0.2	<0.2
旱蓮草	<2.0	<2.0	1.6	1.6	<5.0	<5.0	<0.2	<0.2
法半夏	<2.0	<2.0	1.3	1.2	<5.0	<5.0	<0.2	<0.2
前胡	<2.0	<2.0	0.6	0.7	<5.0	<5.0	<0.2	<0.2
桂枝	<2.0	<2.0	0.4	<0.3	<5.0	<5.0	<0.2	<0.2
連翹	<2.0	<2.0	<0.3	<0.3	5.2	6.0	<0.2	<0.2
龍骨	13.9	<2.0	<0.3	<0.3	11.2	<5.0	<0.2	<0.2
蟬蛻	2.2	7.2	3.5	<0.3	<5.0	9.5	<0.2	<0.2

26.A surveillance study of heavy metal poisoning in frequent Chinese medicine users in Hong Kong and Macao

Principal Investigator: Dr S.H Chui

Faculty of International Tourism, Macau University of Science and Technology

Sponsor:

Macao Fundation

Completion period (Y/M):

2011/2

Main Participants:

S.H. Chui, W.K. Lam, Y.H. Wong, Y.T. Szeto, H.I. Chio, M.Y. Fong, Y.M. Chiu

Introduction:

Chinese medicine (CM) has become the most commonly used medical treatment in addition to orthodox medicine. With its treatment efficacy being increasingly recognised, the annual consumption world-wide is ever increasing. However, while many publications are confirming the efficacy of Chinese medicines, cases of heavy metal poisoning have been frequently reported involving poisoning of lead, mercury, arsenic and cadmium. Chinese medicines, other than being used as drugs by patients, are also used in general as health supplements. As a result, regardless of the reasons of using Chinese medicines, there is an increasing demand for them and concerns over the safety of using Chinese medicines is also increasing.

Since there are hundreds of different Chinese herbs and the use of certain “fufangs” (multi-herb formulae) may contain a suitable level of heavy metals to induce efficacy for treatment, testing every herb or formula to assess the risk of heavy metal poisoning is complex and difficult.

Between November 2009 and February 2011, 85 frequent Chinese medicines users (subjects) were recruited from 8 different clinics and their blood specimens were collected to assess whether frequent use of Chinese medicines would cause higher heavy metal levels in blood. All subjects had been taking Chinese medicines on a daily basis for as long as over five years but not less than three months. They were interviewed by Chinese medicine practitioners to assess the suitability of participation prior to the study and were also requested to complete a questionnaire. 4 ml of blood were then collected for heavy metal determination. Results showed that the heavy metal levels of blood samples were within the normal reference ranges except one. The subject was a 77-year old man with arsenic level of 401 nmol/L. He had been taking Chinese medicines twice a day for less than 1 year. It showed in his questionnaire that he frequently consumed deep-sea fish, which might have increased the non-toxic organic arsenic level in his blood. He was advised to stop eating deep-sea fish for a month and the subsequent test of arsenic with a second blood sample showed that arsenic dropped to with normal reference range (110 nmol/L).

In addition, 80 commonly used Chinese medicines in both powder concentrate and raw herb forms obtained from local distributors were also tested for the above-mentioned heavy metals. Results showed

that none of the powder concentrates exceeded the maximum permitted limit of heavy metal levels. On the other hand, none of the raw herbs showed detectable mercury level but 12 specimens demonstrated levels of arsenic, cadmium or lead exceeding the maximum permitted limits. Another batch of the 12 specimens purchased from a different distributor were re-tested. The repeated results showed similar heavy metal contaminations.

In conclusion, heavy metal contents in Chinese medicines do not contribute to the increased heavy metal levels in frequent Chinese medicines users. In addition, the results also showed that powder concentrates manufactured under Good Manufacturing Practice are purer than the raw herbs in terms of heavy metal contents which may have been significantly reduced.

Appendix:

Table 1：Normal reference range of arsenic, cadmium, lead and mercury levels in human body

Types of heavy metal	Normal reference range	S.I Unit
Arsenic	< 310	nmol/L
Cadmium	Non-smokers：< 27 Smokers：< 54	nmol/L
Lead	< 1.50	umol/L
Mercury	< 77	nmol/L

Table 2：80 Chinese medicines (both powdered concentrate and raw herbs) selected for heavy metal testing.

Diaphoretics pungent in flavour and warm in property	Herba Ephedrae	Ramulus Cinnamomi	Perilla Frutescens
	Zingiber officinale Roscoe	Radix Angelicae Dahuricae	Herba Schizonepetae
	Radix Saposhnikoviae	Fructus Xanthii	Flos Magnoliae
Diaphoretics pungent in flavour and cool in property	Herba Menthae	Fructus Arctii	Radix Puerariae
	Radix Bupleuri	Folium Mori	Flos Chrysanthemi
	Fructus Viticis	Periostracum cicadae	
Heat-clearing and fire-purging drugs	Gypsum Fibrosum	Rhizoma Anemarrhenae	Radix Trichosanthis
Heat-clearing and dampness-drying drugs	Radix Scutellariae	Cortex dictamni	
Heat-clearing and blood-cooling drugs	Rehmannia Glutinosa	Radix Paeoniae Rubra	Cortex Moutan
Heat-clearing and detoxicating drugs	Flos Lonicerae	Fructus Forsythiae	HerbaTaraxaci
	Herba Scutellariae Barbatae	Herba Hedyotidis diffusae	Oroxylum Indicum

Antirheumatics	Radix Angelicae Pubescentis	Ramulus Taxilli Sutchuenensus	
Aromatic drugs for resolving dampness	Rhizoma Atractylodis	Cortex Magnoliae Officinalis	Herba Agastachis
	Fructus Amomi		
Drugs for inducing diuresis and excreting dampness	Poria	Semen Plantaginis	Rhizoma Alismatis
Drugs for regulating Qi	Pericarpium Citri Reticulatae	Fructus Aurantii	
Drugs for improving appetite and digestion and removing food stagnation	Fructus Crataegi	Fructus Oryzae Germinatus	
Drugs for promoting blood circulation and removing blood stasis	Rhizoma Chuanxiong	Rhizoma Corydalis	Radix Curcumae
	Radix Salviae Miltiorrhizae	Herba Leonuri	Caulis Spatholobi
	Radix Cyathulae		
Expectorants and antitussives	Rhizoma Pinelliae	Bulbus Fritillariae Thunbergii	Radix Platycodi
	Peucedanum praeruptorum		
Drugs for relieving cough and asthma	Semen Armeniacae		
Tranquilizers	Os Draconis	Concha Ostreae	Caulis Polygoni Multiflori
	Semen Platycladi		
Drugs for calming the liver	Bombyx Batryticatus		
Drugs for replenishing the Vital Qi	Radix Astragali	Rhizoma atractylodis Macrocephalae	Radix Codonopsis
	Rhizoma Dioscoreae	Radix Glycyrrhizae	Fructus Jujubae
Yang tonics	Herbra Epimedii	Cortex Eucommiae	Radix Dipsaci Asperoidis
Blood tonics	Radix Polygoni Multiflori	Radix Paeoniae Alba	

Yin tonics	Radix Glehniae	Radix Ophiopogonis	Rhizoma Polygonati Odorrati
	Fructus Lycii	Herba Ecliptae	Fructus Ligustri Lucidi
Astringenis	Fructus Corni	Tritici Levis Fructus	

Table 3：Results of 12 raw herbs with heavy metal contents exceeding the maximum permitted limits.

Test Items	Arensic		Cadmium		Lead		Mercury	
Reference Std	2.0 mg/kg		0.3 mg/kg		5.0 mg/kg		0.2 mg/kg	
Batch / Sample	1st Batch	2nd Batch	1st Batch	2nd Batch	1st Batch	2nd Batch	1st Batch	2nd Batch
Radix Dipsaci Asperoidis	<2.0	<2.0	0.5	0.8	<5.0	<5.0	<0.2	<0.2
Radix Cyathulae	<2.0	<2.0	1.3	1.2	<5.0	<5.0	<0.2	<0.2
Herba Scutellariae Barbatae	<2.0	<2.0	0.7	0.5	5.2	<5.0	<0.2	<0.2
Rhizoma Polygonati Odorrati	<2.0	<2.0	0.4	0.4	<5.0	<5.0	<0.2	<0.2
Herba Hedyotidis Diffusae	<2.0	<2.0	2	1.9	<5.0	<5.0	<0.2	<0.2
Herba Ecliptae	<2.0	<2.0	1.6	1.6	<5.0	<5.0	<0.2	<0.2
Rhizoma Pinelliae	<2.0	<2.0	1.3	1.2	<5.0	<5.0	<0.2	<0.2
Peucedanum Praeruptorum	<2.0	<2.0	0.6	0.7	<5.0	<5.0	<0.2	<0.2
Ramulus Cinnamomi	<2.0	<2.0	0.4	<0.3	<5.0	<5.0	<0.2	<0.2
Fructus Forsythiae	<2.0	<2.0	<0.3	<0.3	5.2	6.0	<0.2	<0.2
Os Draconis	13.9	<2.0	<0.3	<0.3	11.2	<5.0	<0.2	<0.2
Periostracum Cicadae	2.2	7.2	3.5	<0.3	<5.0	9.5	<0.2	<0.2

科普項目

Promotion of Science

1.基於 RFID 技術的供應鏈系統模型製作夏令營

負責人：賴嘉偉
澳門科技大學 酒店與旅遊業管理學院

資助機構：

科學技術發展基金

完成時間(年／月**):**

2011 年 8 月

主要參加者：

賴嘉偉、徐煒偉、趙向彥、黃豐、秦晶

課題簡介：

無線射頻 (RFID) 在全球零售、物流乃至倉儲及供應鏈上，都帶來了革命性的變革，如今透過 RFID 來進行管理更是不可或缺。本項目主要是由導師帶領學生製作一個以 RFID 技術爲支持的模擬經營的零售鏈 (Retail Chain) 學習實物模型。實物模型以澳門地圖爲背景，包括部分珠海地區，澳門半島，及氹仔。模型是平面的，但模型地圖上有澳門重要立體景點。模型有八個 RFID 讀咭器個分佈於實物地圖上，貨物是 RFID 的晶片，把晶片放在 RFID 讀咭器上代表貨物的進出。每個 RFID 讀咭器通過 USB/RS233 介面連接到電腦上，電腦上安裝了一個模擬經營程式（Simulation Software），形成了“零售鏈模擬系統”。

1.RFID Technology-based Supply Chain Simulation Model Summer Camp

Principal Investigator: Lai, Ivan, Ka-Wai

Faculty of International Tourism, Macau University of Science and Technology

Sponsor:

Science and Technology Development Fund, MSAR

Completion period (Y/M):

2011/8

Main Participants:

Lai Ka Wai Ivan, Xu Weiwei, Zhao Xiangyan, Huang Feng, Qin Jing

Introduction:

Radio Frequency Identification (RFID) has brought a revolutionary change on the global retail, logistics and even the warehousing and supply chain. Nowadays, RFID technology in supply chain management is indispensable. In this project, instructors led the students to make a RFID-based physical model that simulates the operations of a retail chain. The background of the physical model is a map of Macau, including part of Zhuhai, Macao and Taipa. The model is flat, but the model contains some three-dimensional attractions. The model has eight RFID readers. The goods are the RFID chips. The movement of the chips represents the movement of the goods. A simulation program was installed in the computer and RFID readers were connected to the computer through USB/RS233 interface to form a "Retail Chain Simulation System".

2.科普夏令營--走進神奇的針灸世界

負責人：邰浩清
澳門科技大學 中醫藥學院

資助機構：

科學技術發展基金

完成時間(年／月)：

2011 年 8 月

主要參加者：

奚玉風等

課題簡介：

夏令營充分利用學校現有的人體標本，首先讓學生對人體結構有一個基本的瞭解，在此基礎上和學生一起厘定人體一些常用的穴位，特別是治療青春期有關疾病的穴位，比如美容、益智以及女性痛經方面的穴位；其次講授並演示基本的針灸方法、拔罐等，讓學生瞭解針灸、拔罐等治療疾病的操作過程，最後現場指導學生進行簡單的操作，使同學實實在在地感受針灸的神奇效果。

2.Into the Magical World of Acupuncture

Principal Investigator: Tai, Haoqing
Faculty of Chinese Medicine, Macau University of Science and Technology

Sponsor:

Science and Technology Development Fund, MSAR

Completion period (Y/M):

2011.08

Main Participants:

Yufeng Xi etc.

Introduction:

The summer camp makes full use of the school's human body specimens, which, at the very beginning, enables the students to gain the basics of the human body tructure. On this ground, instructors co-work with the students to figure out ome common acupoints of the human body, especially the points to the treatments of adolescent diseases, such as beauty treatment, intelligence training and dysmenorrheal relief; And then, we have lectures and demonstrations of acupuncture, cupping, so that students can better ‘feel’ the traditional Chinese therapy. The last part of the camp is to let students experience the live therapy operation themselves, they do it, they get the real magic of Acupuncture.

3.科普夏令營--探索人體的奧秘：人體的結構與功能

負責人：吳其標
澳門科技大學 中醫藥學院

資助機構：

科學技術發展基金

完成時間(年／月)：

2011 年 8 月

主要參加者：

澳門各中學學生約 40 人

課題簡介：

通過理論演講、形態學觀察和機能學實驗，使澳門中學生對人體的結構和功能概況有初步瞭解，對生命科學實驗的基本過程有親身的感受，從而達到提高學習興趣、拓展知識、開闊眼界，培養探索精神，提高創新意識，使他們崇尚科學、熱愛生命。

3.Discovering the Human Body from Structures to Functions

Principal Investigator: Wu, Qibiao
Faculty of Chinese Medicine, Macau University of Science and Technology

Sponsor:

Science and Technology Development Fund, MSAR

Completion period (Y/M):

2011/8

Main Participants:

about 40 students from high schools of Macau

Introduction:

The purpose of this Health Summer Camp was to help the students acquire a fundamental understanding of the structures and functions of human body, through theoretical lectures, morphological observation and functional experiments. The students experienced the basic procedure of life science experiments by themselves, thus increasing their interest of learning, expanding the knowledge of science and their horizons, encouraging exploration and innovation. This camp was beneficial for cultivating their spirit of respecting science and loving life.

4.生物技術在中藥藥理研究中的應用

負責人：趙永華
澳門科技大學　中醫藥學院

資助機構：

科學技術發展基金

完成時間(年／月)：

2011 年 8 月

主要參加者：

朱荃、徐友華、封亮

課題簡介：

“生物技術在中藥藥理研究中的應用”科普夏令營以實地考察、課堂講座和實踐動手三方面相結合，主要內容包括澳門野生及人工栽培中藥的考察；中藥藥理實驗：“洋金花解痙作用研究”和“夏枯草體外抑制肺癌細胞活性評價”，參觀澳門科技大學中藥標本館，自製具有保健作用的“涼茶”。目的是引導學生運用常規生物技術，去探索一些常用中藥的藥理作用，通過研究結果使學生更加深入瞭解中藥發揮的效應機制，也同時培養了學生從事科學研究的興趣。

4.The application of biotechnology in the research of TCM pharmacology

Principal Investigator: Zhao, Yonghua

Faculty of Chinese Medicine, Macau University of Science and Technology

Sponsor:

Science and Technology Development Fund, MSAR

Completion period (Y/M):

2011/8

Main Participants:

Zhu quan, Xu you hua, Feng liang

Introduction:

The Summer camp named the application of biotechnology in the research of TCM pharmacology was three aspects of field trip, lectures and practice united. Its content included the investigation of Macau wild and artificial cultivating Chinese medicine, two pharmacological experiments which were the study of Datura metel L. relieving spasm and the effective evaluation of Prunella vulgaris L. inhibiting lung cancer cells proliferation in vitro, visiting the Chinese medicine herbarium of MUST and cooking herbal tea which had health effects by themselves Its aim was to guide students exploring usual Chinese medicine pharmacological effect by general biotechnology. Through analyzing the results, the students further understood the effective mechanism of Chinese medicine and cultivated the interest of engaged in scientific research.

5.第二屆澳門科技大學數學建模比賽

負責人：余翠娥
澳門科技大學　通識教育部

資助機構：

科學技術發展基金

完成時間(年／月)：

2011 年 12 月

主要參加者：

余翠娥、馮麗、宋雲琳、李會敏、黨培、陶傑

課題簡介：

本項目主要有數學建模培訓和數學建模比賽两个環節。參與學生不僅學習了許多實用性強的模型方法，而且綜合地提升了團隊參與、獨立解決問題等多方面的能力，極大地提高了他們學習知識和應用知識的主動性。

5.The 2nd Mathematical Modeling Contest in MUST

Principal Investigator: Yu, Cui'e
Department of General Education, Macau University of Science and Technology

Sponsor:

Science and Technology Development Fund, MSAR

Completion period (Y/M):

2011/12

Main Participants:

Cui'e Yu, Li Feng, Yunlin Song, Huimin Li, Pei Dang, Jie Tao

Introduction:

This project mainly included two aspects of mathematical modeling training and the Mathematical Contest in Modeling. Participating students not only learned many useful modeling methods, and also enhanced the abilities of team cooperation, to solve problems independently, and many other capabilities. This was an effective way to improve their initiative of learning and application of knowledge.

6.天文及太空探索科普夏令營

負責人：梅苞
澳門科技大學 太空科學研究所

資助機構：

科學技術發展基金

完成時間(年／月)：

2011 年 7 月

主要參加者：

蔡占川、董鐵礦、盧曉平、林建賢、吳建瑩

課題簡介：

由澳門科技大學主辦、科學技術發展基金資助的澳門科技大學 2011“天文及太空探索科普”夏令營於 7 月 1 日- 31 日舉行，學員對象爲中學生及大學生。夏令營透過天文、太空科學科普講座; 熱點討論; 望遠鏡使用訓練; 趣味天象觀測; 澳門科學館星空演示及情景實習等，闡述常見天象發生的科學原理，揭示宇宙深處的無窮奧秘。是次夏令營，除基本天文學知識講解之外，特設多個興趣熱點討論，包括日、月、地與人類社會的關係、地外生命與 UFO、尋找第二個地球等；另外也特設專題講座，讓學生們了解前沿科學項目，其中包括月球探測與嫦娥工程、火星深空探測與螢火一號等。

6.Astronomy and space exploration popular science summer camp

Principal Investigator: Mei, Bao

Institute of space science, Macau University of Science and Technology

Sponsor:

Science and Technology Development Fund, MSAR

Completion period (Y/M):

2011/07

Main Participants:

Cai ZhanChuan; Dong TieKuang; Lu XiaoPing; Tom Lin; Wu JianYing

Introduction:

Sponsored by the macau university of science and technology, science and technology development fund the macau university of science and technology of 2011 \"Astronomy and space exploration popular science\" summer camp on July 1-30, held for high school students and college students object. Summer camp through astronomy, space science science lectures; Hot-spot discussion; Telescope training; The signs of interesting observations; The sky scene practice and science museum demonstration, etc, this paper expounds the common signs of scientific principle happen, reveal the deep space infinite mystery. Is time the summer camp, in addition to explain the basic knowledge of astronomy outside, AD hoc more interested in hot discussed, including the sun, moon, and the relationship between the human society, to the life and UFO, looking for the second earth, etc.; Another AD hoc seminar, let the students understand the frontier science projects, including moon exploration and the goddess of the engineering, Mars deep space exploration and a number of firefly.

出版書籍與章節

Published Books and Chapters

1.Global Outsourcing and Offshoring - An Integrated Approach to Theory and Corporate Strategy

- 分散及合作的研發網絡下的知識管理形式

劍橋大學出版社
陳省宏
澳門科技大學　行政與管理學院

ISBN 編號：

0521643724

內容簡介：

分散及合作的研發網絡是目前的主要趨勢，但有關的文獻是非常有限的；特別的是，知識的創造、傳播及吸收等有關創新成果的研發組織形式更是重要的課題，但目前相關的研究是比較空缺的。所以，本章首先探討分散及合作的研發網絡的成功關鍵因素，接著提出模型來評價及建構最合適的研發組織形式，然後通過實証分析得到各種情境下的最適合的研發組織形式，最後提出一種最佳化的研發組織形式。

關鍵詞：

組織形式、研發管理、知識管理

1. Global Outsourcing and Offshoring - An Integrated Approach to Theory and Corporate Strategy - Suitable organization forms for knowledge management at various R&D functions in decentralized and cooperative R&D networks

Cambridge University Press

Chen Hsing-Hung

Faculty of Management and Administration, Macau University of Science and Technology

No. of ISBN:

0521643724

Brief Introduction:

Since the knowledge has become a critical factor affecting industry dynamics, the company in knowledge intensive industry, involving in the Research and Development (R&D), needs to relocate its activities to the foreign locations ("Offshoring") and/or to external service providers ("Outsourcing") inside decentralized and cooperative R&D networks. It is astonishing that no organization forms for Knowledge Management (KM) related to the above issue has been comprehensively addressed in the before. To fill the gap, this paper firstly determines the critical criteria for the success, and then proposes some suitable organization forms for KM at different R&D functions. In addition, Analytic Network Process (ANP) is frequently applied to analyze the inter-relationship of the problems and to prioritize the preferences by generalizing experts' opinions, which are always imprecise and vague. To compensate the deficiency and solve the aforementioned problem, a fuzzy ANP is proposed to examine some suitable organization forms for KM in order to exploit the existing knowledge, distribute new knowledge and then develop new knowledge at different R&D functions.

Keywords:

Organization form, R&D management, Knowledge management

2.澳門法律改革與法制建設

中國社會科學文獻出版社
米健 等
澳門科技大學 法學院

ISBN 編號：

9787509718230

內容簡介：

研討會論文集

關鍵詞：

法律改革、法制建設、澳門

2. Legal Reform and Construction in Macau

Social Sciences Academic Press (China)
Mi, J (Mi Jian), et al.
Faculty of Law, Macau University of Science and Technology

No. of ISBN:

9787509718230

Brief Introduction:

Proceedings

Keywords:

Legal reform, Legal constrction, Macau SAR

3.兩岸當代重要衛生法議題研究

台灣元照出版公司
林位強 等
澳門科技大學 法學院

ISBN 編號：

9789862550700

內容簡介：

澳門法因醫療行爲的二元化，引發爭議。本文認爲應視醫療行爲爲醫生的職業行爲,使司法管轄與適用法律達到統一。其次，本文認爲澳門的醫療損害評估鑒定結論由本地專家作出。其客觀性與公信力受質疑，將來的評估鑒定，應讓外聘專家有實質上的參與權與表決權。最後，本文認爲澳門法設計醫療責任保險制度時應採用“共同分擔投保型”的模式比較適合澳門。

關鍵詞：

醫療行爲、鑒定機制、責任保險

3.Research on the important issue of sanitary code in present Taiwan Straits

Taiwan Yuan Zhao publishing company
Lin, WQ (Lin Wei-Qiang), et al.
Faculty of Law, Macau University of Science and Technology

No. of ISBN：

9789862550700

Brief Introduction：

The dual characterization of medical behavior in the law of Macau has caused disputes. This paper held the view that medical behavior should be regarded as the professional behavior of the doctor in order to achieve unification between jurisdiction and applicable law. Secondly, based on that the objectivity and credibility of the conclusion of expert evaluation about medical mischief has been queried because it is made by local experts, the essential right of participate and vote of foreign experts about the evaluation should be brought in the future. Finally, it is rather suitable for Macau to apply a model of general assignment of insurance when designing the malpractice insurance system in the law of Macau.

Keywords：

Medical behavior, Accrediting mechanism, Insurance for liability

4.澳門法律改革與法制建設

- 澳門、臺灣和內地關聯企業法律制度：一個比較分析的視角

中國社會科學文獻出版社
沈雲樵
澳門科技大學 法學院

ISBN 編號：

978-7-5097-1823-0

內容簡介：

關聯企業是現代公司法研究中的重點，目前，同爲大陸法系地區的澳門特別行政區、臺灣地區和中國內地都已經關注到該制度，在三地的立法實踐中，臺灣最早於 1997 年修訂“公司法”時增訂了“關係企業”專章以爲因應，澳門在 1999 年制定的《澳門商法典》中亦規定了經濟利益集團制度，二者雖名稱不同於關聯企業，實則都與關聯企業密切相關。在借鑒臺灣模式之情形下，將來我國《公司法》關於關聯企業的立法模式應當是直接引入關聯企業制度，同時修訂甚或廢棄狹義上的關聯企業立法即母子公司法律。

關鍵詞：

關聯企業、控制股東、規制

4. Legal Reform and Construction in Macau - The Law of Affiliates in Macau, Taiwan, and China Mainland: A Comparative Analysis

Social Sciences Academic Press (China)

Shen, YQ (Shen Yunqiao)

Faculty of Law, Macau University of Science and Technology

No. of ISBN：

978-7-5097-1823-0

Brief Introduction：

Affiliates is the focus of the study of modern company law. As the civil law areas, Macao Special Administrative Region and Taiwan have been concerned law of the affiliates. Taiwan amended "Company Law" in 1997, and updated the "Affiliates" chapter in response. Macau "Macau commercial Code" also provides the law of economic interest group in 1999, although the name is different from the affiliates, but in reality closely related with affiliates. On the basis of Taiwan's legislature model, China's "Company Law" legislation on affiliates in the future should directly introduce the law of affiliate, and revised or even abandoned the legislation of affiliates in the narrow sense, that is parent-subsidiary corporate law.

Keywords：

Affiliates, Controlling shareholders, Regulation

5.《教育學的研究方法》（第 7 版）

Routledge

Keith Morrison, L. Cohen and L. Manion

ISBN 編號：

9780415583367

內容簡介：

這本暢銷已久的《教育學研究方法》經過修訂和擴充後，迎來了第七版的誕生。新版介紹了教育學研究採用的各種方法，本書由 5 個主要部分、共 758 頁組成，內容分別爲教育學研究的背景，教育學研究的計劃、教育學研究的類型、收集數據的策略及研究工具，以及數據分析。本書參考了大量的書籍文獻及豐富的網絡資料，現仍被當作學生及教師進行教育學研究的標準教材來使用，讀者可從中獲得豐富實用的研究指引、深刻紮實的理論基礎以及新穎獨特的參考資料。

第七版新增的章節如下：

- 因果關係、教育學研究批評、評估及研究政策、包括跨文化研究、混合方法及參與式研究
- 策劃一個研究課題、包括抽樣、研究問題、文獻綜述及學術倫理問題
- 元分析、綜合研究及系統回顧
- 虛擬世界及互聯網研究
- 教育學研究中如何使用和分析視聽材料
- 組織及分析質化數據、內容分析、編碼及計算機分析、主題、敍事、對話及話語、紮根理論
- 瞭解和選擇統計檢驗、描述及統計推斷、多維測量及因數分析

關鍵詞：

研究方法，教育學

5.Research Methods in Education (7th edition)

Routledge

Keith Morrison, L. Cohen and L. Manion

No. of ISBN:

9780415583367

Brief Introduction:

This rewritten, expanded and updated seventh edition of the long-running bestseller Research Methods in Education covers the whole range of methods currently employed by educational research at all stages. Its five main parts and 758 pages cover: the context of educational research; planning educational research; styles of educational research; strategies and instruments for data collection; and data analysis. The book contains a comprehensive set of references and a dedicated website containing copious further materials. It continues to be the standard text for students and lecturers undertaking, understanding and using educational research. It offers plentiful and rich practical advice, underpinned by clear theoretical foundations, research evidence and up-to-date references.

The seventh edition contains new chapters on:

- Causation, critical educational research, evaluation and the politics of research, including material on cross-cultural research, mixed methods and participatory research
- Choosing and planning a research project, including material on sampling, research questions, literature reviews and ethical issues
- Meta-analysis, research syntheses and systematic reviews
- Virtual worlds and internet research
- Using and analyzing visual media and data in educational research
- Organizing and presenting qualitative data, content analysis, coding and computer analysis, themes, narratives, conversations and discourses, grounded theory
- Understanding and choosing statistical tests, descriptive and inferential statistics, multi dimensional measurement and factor analysis

Keywords:

Research methods, education

學術論文

Academic Papers

1.通過背景網實現文獻選擇中的關鍵詞的個性化

陳遠、丁利亞、羅少龍、孫文俊

澳門科技大學　資訊科技學院

會議/刊物名稱：

國際論文集 ICIC Express Letters，Vol. 5，No. 4(B)，pp.1339-1346，2011 年 4 月，EI 檢索

內容簡介：

本文提出一個新方法，通過結合描述用戶的即時需要關鍵詞以及用戶的長期知識背景，來更好的實現基於個人喜好的文獻選擇。

關鍵詞：

個性化的關鍵詞、背景網絡、增量學習

1.Background Net for Personalized Keywords in Article Selection

Chen, Y (Chen Yuan); Ding, LY (Ding Li-Ya); Lo, SL (Lo Sio-Long); Sun, WJ (Sun, Wenjun)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

International Journal ICIC Express Letters, Vol. 5, No. 4(B), pp.1339-1346, Apr 2011, EI indexed

Abstract:

This article proposes a novel approach that combines user's instant requirement described in keywords with her/his long-term knowledge background to better serve article selection based on personal preference. The knowledge background is represented as weighted undirected graph called background net that captures the contextual association of words appeared in the articles recommended by the user through incremental learning. With a background net of user constructed, a keyword from the user is personalized to a fuzzy set that represents contextual association of the given keyword to other words involved in the user's background net. A personalized article selection can then be achieved by evaluating similarity between personalized keyword set based on user's background net and that based on a candidate article.

Keywords:

Personalized Keywords, Background Net, Incremental Learning

2.基於改進型的複雜交流分析的雙橋諧振變換器的軟開關範圍的一般性研究

李曉東、Akshay Rathore

澳門科技大學　資訊科技學院

會議/刊物名稱：

第六屆 IEEE 工業電子及應用會議，pp.316-321，2011 年 6 月，北京，EI 檢索，會議文章

內容簡介：

一種改進型的複雜交流分析被用於分析不同的雙橋諧振直流/直流變換器，文中給出了每一個橋的開關的軟開關狀況。幾種特別的諧振情況被單獨做了討論。一個設計的例子被提出以展示這種分析在變換器設計中的應用。作爲驗證的依據，文中給出了數字仿真的結果。

關鍵詞：

諧振變換器、軟開關、直流/直流

2.A General Study of Soft-Switching Ranges of Dual-Bridge Resonant Converters Using A Modified Complex AC Analysis Approach

Li, XD (Li, Xiaodong); Akshay Rathore

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

6th IEEE Conference on Industrial Electronics and Applications, Proceedings of the 6th IEEE Conference on Industrial Electronics and Applications (ICIEA), pp.316-321, June 21-23 2011, Beijing, EI indexed, conference article

Abstract:

A modified complex ac analysis approach is used to analyze various dual-bridge dc/dc resonant converters. The general conditions of soft-switching for the two bridges in the converters are presented. Several particular cases are explained. A design example is given to illustrate the application of this approach in converter design. Simulation results are included for the purpose of validation.

Keywords:

Resonant converter, Soft-switching, Dc/dc

3.對比帶有有源箝位的零電壓開關的電流型的全橋和半橋隔離型直流直流變換器

Akshay Rathore、李曉東

澳門科技大學　資訊科技學院

會議/刊物名稱：

第九屆 IEEE 國際電力電子和驅動系統會議，pp.133-138，2011 年 12 月，星加坡，EI 檢索，會議文章

內容簡介：

本文對帶有有源箝位緩衝器高頻電流型全橋和半橋隔離型直流直流變換器進行了比較。有源鉗位緩衝器除了可以吸收開關上的關斷電壓脉衝，還可以作爲零電壓過渡輔助電路實現變換器中的半導體開關的零電壓開關。零電壓開關的範圍取决於設計過程，特別是變壓器的漏電感和激磁電感的比例。爲了便於選擇變換器類型，文中對變換器成本、零電壓開關的範圍、效率、尺寸、元件規格、損耗以及能量密度做出了全面比較。

關鍵詞：

直流/直流，有源箝位，零電壓開關

3.Comparison of Zero-Voltage-Switching Current-Fed Full-Bridge and Half-Bridge Isolated Dc/Dc Converters with Active-Clamp

Akshay Rathore; Li. XD (Li, Xiaodong)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

9th IEEE conference on Power Electronics and Drive Sysytems (IEEE-PEDS), pp.133-138, Dec 2011, Singapore, EI indexed, conference article

Abstract:

This short paper presents a comparison between high-frequency current-fed full-bridge and half-bridge isolated dc/dc converters with active-clamp snubber. Active-clamp snubber, in addition to absorbing the turn-off voltage spike across the switch, acts as a zero-voltage transition auxiliary circuit resulting in zero-voltage switching (ZVS) of the semiconductor devices of converters. ZVS range depends upon the design, in particular, ratio of leakage and magnetizing inductance of the transformer. Cost, ZVS range, efficiency, volume, components' rating, losses and efficiency, and power density per cell are compared to select a converter.

Keywords:

Dc/dc, Active clamp, Zero-voltage-switching

4.認知中繼網絡中的中斷概率

李東

澳門科技大學　資訊科技學院學院

會議/刊物名稱：

IET 通信，第 5 卷，第 18 期，pp. 2730-2735，2011 年 12 月，SCI-E 檢索

內容簡介：

在本文中，我們研究了認知中繼系統中的中斷性能，其中最優中繼分別通過全局和局部信道信息來選擇。我們推導了兩種方案下系統性能的閉式表達式，並且分析了其上下限以及漸進性能即分集增益。實驗結果驗證了提出算法的準確性，並且顯示了中繼選擇帶給系統的增益。

關鍵詞：

認知無綫電、中斷概率、中繼選擇

4.Outage probability of cognitive radio networks with relay selection

Li, D (Li Dong)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

IET COMMUNICATIONS, Volume 5, Issue 18, pp.2730-2735, DEC 2011, SCI-E indexed

Abstract:

In this study, the author investigates the outage performance of cognitive relay networks, in which the best relay is selected based on full and partial channel state information, respectively. The author derives exact closed-form expressions for both relay selection schemes, and study their asymptotic performance in terms of the diversity order based on the performance bound analysis. Simulation results are provided to confirm the accuracy of the analytical results, and highlight performance gains provided by the relay selection in cognitive radio networks.

Keywords:

Cognitive radio; Outage probability; Relay selection

5.多用戶認知無線電網路中的有效功率控制

李東

澳門科技大學　資訊科技學院學院

會議/刊物名稱：

無綫個人通信，第 59 卷，第 4 期，pp.589-597，2011 年 8 月，SCI-E 檢索，EI 檢索

內容簡介：

認知無線電近來被認爲是改善頻譜利用率的一種靈活的頻譜使用模型。在本文中，我們通過幾何規劃提出了一種新的功率分配演算法來實現認知用戶和主用戶的頻譜共用。該演算法的目標是最小化認知用戶總的功率損耗同時既保護主用戶又可以滿足多個認知用戶的服務品質，這是與先前工作的不同之處。爲了簡化中心式的計算，一種分散式的演算法被提出來自適應地調整認知用戶的發射功率。仿真結果驗證了提出演算法在功率節省方面的有效性。

關鍵詞：

功率控制、認知無綫電、幾何規劃

5.Efficient Power Allocation for Multiuser Cognitive Radio Networks

Li, D (Li Dong)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

WIRELESS PERSONAL COMMUNICATIONS, Volume 59, Issue 4, pp.589-597, AUG 2011, SCI-E indexed, EI indexed

Abstract:

Cognitive radio has been recently considered as a flexible spectrum usage model to improve the spectrum efficiency. In this paper, we develop a new power allocation approach by geometric programming (GP) to realize the coexistence of a primary user (PU) and multiple cognitive users (CUs) in the same frequency band. The objective is to minimize the total power consumption of CUs while guaranteeing the not only protection of PU but also the quality of service (QoS) of multiple CUs, which is different from previous works. In order to facilitate the centralized computation, a distributed algorithm is developed to adaptively adjust the transmit power of each CU. Numerical results are provided to show the effectiveness of the proposed algorithm in power saving.

Keywords:

Power allocation; Cognitive radio; Geometric programming

6.通道估計誤差對認知多輸入單輸出系統中的隨機發射天線選擇的影響

李東

澳門科技大學　資訊科技學院學院

會議/刊物名稱：

IEEE 通信快報，第 15 卷，第 6 期，pp.656-658，2011 年 6 月，SCI-E 檢索，EI 檢索

內容簡介：

本文分析了通道估計誤差對帶有隨機發射天線選擇的認知多輸入單輸出系統的影響。該通道估計誤差是由於認知用戶發射機和主用戶接收機之間的部分通道資訊引起的。利用接收信噪比的概率密度函數，我們對系統的有效通道進行了數值分析，並且推導了理想通道情況下其閉式運算式。仿真結果表明系統性能不會受到通道估計誤差的影響，尤其當認知用戶嚴格的延時服務品質要求時。

關鍵詞：

有效容量、認知多輸入單輸出系統、隨機天綫選擇、信道估計誤差

6.Effect of Channel Estimation Errors on Arbitrary Transmit Antenna Selection for Cognitive MISO Systems

Li, D (Li Dong)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

IEEE COMMUNICATIONS LETTERS, Volume 15, Issue 6, pp.656-658, JUN 2011, SCI-E indexed, EI indexed

Abstract:

This letter analyzes the effect of channel estimation errors on the performance of cognitive multiple input and single output (MISO) systems with arbitrary transmit antenna selection. In particular, the channel estimation errors are caused by the partial channel information between the cognitive transmitter and the primary receiver. Utilizing the derived probability density function (PDF) of the received signal-to-noise ratio (SNR), the effective capacity of the considered systems is numerically evaluated, and a new closed-form expression for the case of perfect channel estimation is also derived. Simulation results show that the system performance is not sensitive to the channel estimation error, especially for strict delay quality of service (QoS) requirement of the cognitive user (CU).

Keywords:

Effective capacity; Cognitive MISO system; Arbitrary antenna selection; Channel estimation errors

7.帶有機會調度的認知廣播通道容量分析

李東

澳門科技大學　資訊科技學院

會議/刊物名稱：

無線通信與移動計算，2011 年，EI 檢索

內容簡介：

在本文中，我們研究了帶有機會調度的認知廣播通道容量極限分析，其中認知用戶與主用戶共用同一頻譜而且保證對主用戶的干擾保持在可接受的水準。在該系統中，我們分析了瑞麗衰落通道下機會頻譜共用提供的通道容量增益。具體地，我們分析了被調度認知用戶的中斷和有效通道容量，並且推導了其閉式運算式。當通道帶寬趨於無窮大時，我們也推導了其漸近性能的閉式運算式。數值結果驗證了我們的理論分析，並且量化了系統參數的影響。

關鍵詞：

認知無綫電、頻譜共享、隨機調度、中斷概率、有效容量

7.On the capacity of cognitive broadcast channels with opportunistic scheduling

Li, D (Li Dong)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

Wireless Communications and Mobile Computing, 2011, EI indexed

Abstract:

In this paper, we investigate the fundamental capacity limit of the cognitive broadcast channels with opportunistic scheduling, where cognitive users (CUs) can share the same spectrum with the primary user (PU) as long as the interference introduced to the PU is kept at an acceptable level. In this context, we analyze the capacity gains offered by this opportunistic spectrum sharing in Rayleigh fading environment. Specifically, we analyze the outage and effective capacity of the selected CU, and derive closed-form expressions for these capacity metrics. We also obtain closed-form expressions for the asymptotic performance as the bandwidth approaches infinity. Numerical results are provided to corroborate our theoretical analysis and quantify the effects of the system parameters.

Keywords:

Cognitive radio; Spectrum sharing; Opportunistic scheduling; Outage capacity; Effective capacity

8.關於能量比較的數字音頻盲水印方案

袁漪、田小林、夏紹瑋

澳門科技大學　資訊科技學院

會議/刊物名稱：

計算機工程與應用，2011 年，第 47 卷，第 1 期，pp.131-134，中文核心期刊要目總覽(2008)

內容簡介：

本文提出並實現了一種關於能量比較的數字音頻盲水印方案，該方案根據人類聽覺系統掩蔽特性，通過能量比較自適應地尋找最佳水印嵌入點；利用離散余弦變換 (Discrete Cosine Transform，DCT) 的能量壓縮特性，提高數字水印的隱藏效果；在實現音頻數字水印的高透明性和高魯棒性的同時實現了水印的盲檢測。實驗結果表明，算法不但保持了在各種攻擊下較好的或更好的魯棒性，定性和定量兩方面的分析，也都顯示了嵌入水印後的音頻信號可以更好地保留原音頻信號的感知質量。

關鍵詞：

離散余弦變換、數字音頻水印、能量比較、人類聽覺系統

8.Blind Audio Digital Watermarking Method Based on Power Comparison

Yuan, Y (Yuan Yi); Tian, XL (Tian Xiaolin); Xia, SW (Xia Shaowei)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

Computer Engineering and Applications, Volume 47, Issue 1, pp.131-134, 2011, A Guide to the Core Journal of China (PKU)

Abstract:

A blind audio digital watermarking method based on power comparison is presented. The features of the proposed algorithm are as follows: A right position to insert watermarking is adaptively found based on masking properties of the Human Auditory System (HAS).Using the energy concentration characteristics of Discrete Cosine Transform (DCT) gets better transparence. It is a blind audio digital watermarking. Experimental results show that the proposed watermarking algorithm is imperceptible and robust against various signal processing.

Keywords:

Discrete cosine transform, Digital audio watermarking, Power comparison, Human auditory system

9.基於魔方旋轉和 Logistic 序列的圖像置亂算法

張力、田小林、夏紹瑋

澳門科技大學　資訊科技學院

會議/刊物名稱：

2011 International Conference on Multimedia and Signal Processing，2011 年 5 月，pp.312-315，EI 檢索，會議文章

內容簡介：

本文提出了一種全新的基於魔方旋轉和 Logistic 序列的圖像置亂算法。算法首先將原圖分塊並根據 Logistic 序列所產生的魔方旋轉方式對子圖進行置亂。分析及實驗結果表明新算法一圖一密鑰，有很好的實用性和更大的密鑰空間。

關鍵詞：

置亂算法、圖像加密、魔方、Logistic 序列

9.A Scrambling Algorithm of Image Encryption Based on Rubik's Cube Rotation and Logistic Sequence

Zhang, L (Zhang Li); Tian, XL (Tian Xiaolin); Xia, SW (Xia Shaowei)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

2011 International Conference on Multimedia and Signal Processing, May 2011, pp.312-315, EI indexed, conference article

Abstract:

This paper presents a new scrambling algorithm for image encryption. It combines the Logistic chaotic sequence and the common Rubik's Cube. The algorithm partition an original image into several blocks and generates some cubes. Rotate these cubes similar to Rubik's Cube by using the methods which are generated by Logistic system. After that, we use those cubes to revert a new scrambled image. Due to the complexity of Rubik's Cube and the rotation methods are totally generated by chaotic system, this algorithm only could be revert by knowing the arguments of the Logistic system. By using the arguments as the key, this algorithm has good one-key-one-image security and practicability. Compared with some other algorithms, this algorithm has its own advantages such as large space of secret key.

Keywords:

Scrambling Algorithm, Image Encryption, Rubik's Cube, Logistic Chaotic Sequence

10.基於 Slant 變換的視頻水印算法

秦鉞、田小林、夏紹瑋

澳門科技大學　資訊科技學院

會議/刊物名稱：

2011 4th International Congress on Image and Signal Processing，pp.31-33，2011 年 10 月， EI 檢索，會議文章

內容簡介：

本文提出了一種基於 3-D Slant 變換的視頻水印算法。新算法應用 3-D Slant 變換和視頻分段技術在變換域矩陣上嵌入水印信息。實驗結果表明新算法對常見水印攻擊具有較强的魯棒性。

關鍵詞：

分量、slant 變換、視頻水印、視頻分割

10.Research on Video Watermark Algorithm based on Slant Transform

Qin, Y (Qin Yue); Tian, XL (Tian Xiaolin); Xia, SW (Xia Shaowei)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

2011 4th International Congress on Image and Signal Processing, pp.31-33, Oct 2011, EI indexed, conference article

Abstract:

In recent years, copyright protection becomes more and more important in daily life, especially in digital products. A new algorithm uses 3D slant transform and short video segmentation techniques to embed watermark in the coefficient matrix. The experiment results show that the proposed method can enhance the robustness of original video and resist common watermark attacks.

Keywords:

Component, Slant transform, Video watermarking, Short video segmentation

11.基於小波域相鄰幀比較的視頻水印算法

鄒陽、秦鉞、田小林、夏紹瑋

澳門科技大學　資訊科技學院

會議/刊物名稱：

2011 4th International Congress on Image and Signal Processing，pp.376-380，2011 年 10 月，EI 檢索，會議文章

內容簡介：

本文提出並實現了一種基於小波域相鄰幀比較的視頻水印新算法，新算法在小波域的 LHx 子帶上比較視頻的相鄰幀，並根據相鄰幀的相似程度確定是否在其小波域的 LLx 子帶上嵌入水印信息。實驗結果表明新算法對視頻丟幀和 JEPG 壓縮具有很好的魯棒性。

關鍵詞：

視頻水印、小波分解、相鄰幀

11.Video Watermarking Based on Adjacent Frames Comparison in Wavelet Domain

Zou, Y (Zou Yang); Qin, Q (Qin Que); Tian, XL (Tian Xiaolin); Xia SW (Xia Shaowei)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

2011 4th International Congress on Image and Signal Processing, pp.376-380, Oct 2011, EI indexed, conference article

Abstract:

In this paper, a new algorithm based on adjacent frames comparison in wavelet domain is proposed. In this algorithm, the embedding decision is made by comparing the LHx components of two adjacent frames. In the comparison process, a threshold is used to determine if the two components are similar enough. If they are, then the scrambled watermark image will be embedded to the LLx component of the frame that is named Host Frame. In the retrieving process, the LHx components of each two adjacent frames will be compared again to see if they are similar enough. If they are, then the watermark will be retrieved from the LLx component of the Host Frame. In the watermark retrieving process, the threshold should be the same with that in the embedding process to make sure the chosen frames contain watermark information. The results show that this algorithm has good frame-dropping and JEPG compression resistance.

Keywords:

Video watermarking, Wavelet decomposition, Adjacent frames

12.基於 DWT 和邊緣檢測的零水印新算法

張力、蔡鵬、田小林、夏紹瑋

澳門科技大學　資訊科技學院

會議/刊物名稱：

2011 4th International Congress on Image and Signal Processing，pp.1016-1020，2011 年 10 月，EI 檢索，會議文章

內容簡介：

本文提出並實現了一種基於 DWT 和邊緣檢測的圖像零水印算法。新算法在兩層小波變換的基礎上提取圖像低頻分量的主要信息，並和水印圖像進行異或操作得到偽水印。實驗結果表明新算法具有很好的魯棒性和較大的水印容量。

關鍵詞：

零水印、信息隱藏、邊緣檢測、DWT

12.A Novel Zero-watermarking Algorithm Based on DWT and Edge Detection

Zhang, L (Zhang Li); Cai, P (Cai Peng); Tian, XL (Tian Xiaolin); Xia, SW (Xia Shaowei)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

2011 4th International Congress on Image and Signal Processing, pp.1016-1020, Oct 2011, EI indexed, conference article

Abstract:

This paper introduces a novel zero-watermarking algorithm based on DWT and edge detection. According to the image's low frequency component, the algorithm extracts the interested main information from an original image after two levels DWT and then transfers this information to a matrix by a coding method. Do the XOR operation to this matrix with the watermark image to get a pseudo-watermark and achieve the aim of information hiding. On account of the property of zero-watermarking, technically, this algorithm has overall good robustness and large watermark capacity. Such property had also been verified by experiments.

Keywords:

Zero-watermarking, Information Hiding, Edge Detection, DWT

13.基於 Harris 特徵點的抗幾何攻擊水印新算法

庄楚鍾、張力、田小林、夏紹瑋

澳門科技大學　資訊科技學院

會議/刊物名稱：

2011 4th International Congress on Image and Signal Processing，pp.1003-1007，2011 年 10 月，EI 檢索，會議文章

內容簡介：

現有的圖像水印技術對壓縮，加噪，濾波等一般圖像攻擊都有良好的魯棒性，但是對於幾何攻擊的抵抗能力並不佳。本文針對圖像幾何變形提出並實現了一種基於 Harris 角點，Delaunay 三角網和 Hu 不變量的新的零水印算法，較好的解決了圖像幾何校正以及水印魯棒性和透明性平衡的問題。

關鍵詞：

數字水印、幾何攻擊、Harris 角點、Delaunay 三角網、Hu 不變量

13.A Novel Anti-geometric-attacking Watermarking Algorithm Based on Harris Feature Points

Zhuang, CZ (Zhuang Chuzhong); Zhang, L (Zhang Li); Tian, XL (Tian Xiaolin); Xia, SW (Xia Shaowei)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

2011 4th International Congress on Image and Signal Processing, pp.1003-1007, Oct 2011, EI indexed, conference article

Abstract:

This paper presents a new robust watermarking algorithm which could against Geometric Attack. This algorithm first inserts the watermark into the original image, and then construct a watermarking image feature description table (IFDT) by doing a serial of image operation, which including Harris corner detection, Delaunay trigonometry network generation and Hu invariant moments computation. With the help of IFDT, we can do geometric correction upon a geometric attacked image. Finally, the watermark can be extracted from the corrected image. Experimental results show that the proposed scheme is robust and secure against a wide range of geometric attacks.

Keywords:

Digital Watermarking, Geometric Attacks, Harris Corner, Delaunay Trigonometry Network, Hu Invariant Moments Computation

14.基於分數次傅裏葉變換和魔方旋轉的圖像加密算法

馮瀟、田小林、夏紹瑋

澳門科技大學　資訊科技學院

會議/刊物名稱：

2011 4th International Congress on Image and Signal Processing，pp.1008-1011，2011 年 10 月，EI 檢索，會議文章

內容簡介：

爲了提高圖像的置亂效果，本文提出並實現了一種基於分數階傅裏葉變換和魔方置亂的圖像加密新算法。新算法可以在時頻域二次加密，實驗結果表明新算法具有較高的置亂度。

關鍵詞：

圖像加密、分數次傅裏葉變換、圖像置亂、魔方旋轉、混沌序列

14.A Novel Image Encryption Algorithm Based On Fractional Fourier Transform and Magic Cube Rotation

Feng, X (Feng Xiao); Tian, XL (Tian Xiaolin); Xia, SW (Xia Shaowei)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

2011 4th International Congress on Image and Signal Processing, pp.1008-1011, Oct 2011, EI indexed, conference article

Abstract:

This paper proposes a novel image encryption algorithm based on the discrete fractional Fourier transform and an improved magic cube rotation scrambling algorithm. Through fractional Fourier transform and position scrambling, the proposed algorithm can achieve double image encryption in the time-frequency domain. Compared the encrypted images and decrypted images, the proposed image encryption algorithm has better performance than only using fractional Fourier transform.

Keywords:

Image Encryption, Fractional Fourier Transform, Image Scrambling, Magic Cube Rotation, Chaotic Sequences

15.OCT 眼前節圖像基於抽樣的子帶自適應斑點噪聲抑制算法

宋潮、田小林、孫延奎

澳門科技大學　資訊科技學院

會議/刊物名稱：

2011 4th International Congress on Image and Signal Processing，pp.954-957，2011 年 10 月，EI 檢索，會議文章

內容簡介：

本文爲 OCT 眼前節圖像去噪提出並實現了一種新的小波閾值去噪算法。算法可以自適應爲小波域各子帶選閾值，並利用對 OCT 眼前節圖像的先驗知識，在保留邊緣信息的同時對 OCT 眼前節圖像去噪。新算法簡單、計算量小；實驗結果表明，與 NormalShrink 算法相比，本文所提算法具有更強的去噪能力，在 OCT 眼前節圖像上明顯優於 NormalShrink 算法。

關鍵詞：

圖像去噪、離散小波變換、軟閾值、OCT、斑點噪聲抑制

15.A Sampling-based Subband Adaptive Algorithm for Speckle Noise Reduction of Optical Coherence Tomographic Anterior Chamber of Eyeball Images

Song, C (Song Chao); Tian, XL (Tian Xiaolin); Sun, YK (Sun Yankui)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

2011 4th International Congress on Image and Signal Processing, pp.954-957, Oct 2011, EI indexed, conference article

Abstract:

This paper proposes a new wavelet thresholding algorithm to denoise Optical Coherence Tomographic (OCT) anterior chamber of eyeball image. The feature of this algorithm includes that (1) it is adaptive, every subband has its own threshold; (2) it is sampling-based so that it is not limited to any fixed noise pattern; (3) priori knowledge is needed, so the denoising process is more focused on individual images types; (4) a soft thresholding algorithm is applied to maintain the edge and remove the noise at the same time; (5)It is simplified which requires less calculation. Experimental result between the proposed algorithm and NormalShrink shows that the proposed algorithm has strong denoising performance and outperforms NormalShrink for OCT anterior chamber images.

Keywords:

Image denoising, Discrete wavelet transform, Soft thrsholding, OCT, Speckle reduction

16.基於修改直方圖的 OCT 眼前節圖像動態閾值保邊去噪圖像分割方法

杜文亮、田小林、孫延奎

澳門科技大學　資訊科技學院

會議/刊物名稱：

2011 4th International Congress on Image and Signal Processing，pp.1123-1126，2011 年 10 月，EI 檢索，會議文章

內容簡介：

針對高分辨率的 OCT 眼前節圖像，在邊緣提取的時候會出現弱邊現象，本文提出並實現了一種基於直方圖的動態閾值保邊去噪圖像分割方法。本文定義了兩種閾值，一種是用來判別動態閾值處理時分割區域中是否存在感興趣區域的閾值，定義爲感興趣區域判別閾值；另一種閾值是運用感興趣區域判別閾值判別此分割區域含有感興趣區域之後，用來分割感興趣區域與噪聲的閾值，定義爲去噪閾值。本文基於直方圖的一階差分和二階差分選取出這兩個閾值，並利用它們對 OCT 眼前節圖像進行動態閾值保邊圖像分割，然後利用基本的圖像形態學方法和中值濾波對分割後圖像進行進一步保邊去噪處理，最終應用 kirsch 算子對圖像進行邊緣提取。選用 moting 公司提供的 OCT 眼前節圖像進行了實驗，並與使用全局最大方差閾值圖像分割法的效果進行比較。實驗結果表明，本文使用的方法對於高分辨率 OCT 眼前節圖像的邊緣提取，不僅除去了大部分噪聲，而且對感興趣區域邊緣，包括弱邊有較好的保留作用。

關鍵詞：

OCT 眼前節圖像、直方圖、動態閾值、保邊圖像分割、感興趣區域、去噪

16.A Dynamic Threshold Edge preserving Segmentation Algorithm for Anterior Chamber OCT Images Based on Modified Histogram

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Name of Conference/Journal:

2011 4th International Congress on Image and Signal Processing, pp.1123-1126, Oct 2011, EI indexed, conference article

Abstract:

In this paper, a dynamic threshold edge preserving smoothing (DTEPS) segmentation algorithm based on histogram is presented for anterior chamber OCT images the algorithm defines two thresholds, one threshold is used to determine a region of interest (ROI) as the region of interest discrimination threshold (ROIDT). Another threshold defined as the noise threshold (NT) is to detect noise from the region of interest which is gotten by the ROIDT. The algorithm first selects ROIDT and NT using first order difference and second order difference of the smoothed histogram. Then, use them to segment the image. To test the segmentation effect basic mathematical morphology and median filtering have been used to do further denoising on the segmented image and kirsch edge detection operator is selected to detect the edge of anterior chamber OCT image which has been denoised. To evaluate this proposed algorithm, experiments are performed on the anterior chamber OCT images. The results are compared with the segmentation algorithm of using global maximum variance threshold. Experimental results show that the algorithm proposed not only removed more noise but also preserved the edge of ROI better than the global maximum variance threshold (GMVT) segmentation algorithm.

Keywords:

Anterior chamber OCT images, Histogram, Dynamic threshold, Edge preserving smoothing, Segmentation algorithm, Denoise, Region of interest

17.眼前節組織 OCT 圖像的多結構多尺度形態學弱邊檢測

張昂、黃思尉、田小林、孫延奎

澳門科技大學　資訊科技學院

會議/刊物名稱：

2011 4th International Congress on Image and Signal Processing，pp.963-966，2011 年 10 月，EI 檢索，會議文章

內容簡介：

爲對眼前節組織的 OCT 圖像進行弱邊檢測，首先用多結構元素對圖像進行多尺度的膨脹，得到多個邊緣圖像後，計算各個邊緣圖像的信息熵。再以信息熵的差量爲權重，計算各個邊緣圖像的支持度，以支持度爲各個邊緣圖像進行圖像融合的加權係數，最終得到融合後的 OCT 眼前節圖像的含弱邊的邊緣圖。

關鍵詞：

OCT 圖像、信息熵、多結構多尺度形態學

17.Morphologic Weak Edge Detection by Multi-structure and Multi-scale in Anterior Chamber OCT Images

Zhang, A (Zhang Ang); Huang, SW (Huang Siwei); Tian, XL (Tian Xiaolin); Sun, YK (Sun Yankui)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

2011 4th International Congress on Image and Signal Processing, pp.963-966, Oct 2011, EI indexed, conference article

Abstract:

In this paper, a new algorithm of weak edge detection is proposed, it is based on the traditional Morphological edge detection algorithm, which has been combined with evidence syncretic fusion algorithm and information entropy. The images are expanded by multi-structure and multi-scale to get more edge images, the weighted coefficients are calculated by the differences between two information entropies of edge images, finally, the edge images are fused by the weighted coefficients. The proposed algorithm can adapt to the features of anterior chamber OCT images very well, it not only has the stronger ability of anti-noise, but also can detect more clearly edge images.

Keywords:

OCT image, Information entropy, Multi-structure, Multi-scale

18.一種基於魔方旋轉和混沌序列的圖像置亂改進算法

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會議/刊物名稱：

2011 4th International Congress on Image and Signal Processing，pp.1021-1024，2011 年 10 月，EI 檢索，會議文章

內容簡介：

爲了提高圖像的置亂效果，本篇論文改進了一種基於魔方旋轉和混沌序列的圖像置亂算法並對結果進行了分析。統計分析及實驗結果均表明改進後的魔方置亂算法置亂後相鄰像素相關性很弱，算法具有較高的置亂度。

關鍵詞：

圖像加密、圖像置亂、魔方旋轉、混沌序列

18.An Improved Image Scrambling Algorithm Based On Magic Cube Rotation and Chaotic Sequences

Feng, X (Feng Xiao); Tian, XL (Tian Xiaolin); Xia, SW (Xia Shaowei)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

2011 4th International Congress on Image and Signal Processing, pp.1021-1024, Oct 2011, EI indexed, conference article

Abstract:

This paper improves an image scrambling algorithm based on Rubik's cube rotation and logistic sequence. The improved algorithm resizes original image and partitions a resized image into six blocks to generate cubes. Rotate these cubes in 25 steps by using 30 different rotating methods which are controlled by a chaotic system. After rotating, remap those cubes to a chaotic image. Then use Chebyshev chaotic system to generate the rotating methods and scramble the chaotic image again in order to get better result. As the rotation methods are totally generated by the chaotic system, the encrypted image can not be retrieval unless the arguments of the chaotic system are exactly the same. Compared with an algorithm based on Arnold transform and the algorithm based on Rubik's cube rotation and logistic sequence, this improved algorithm has better scrambling degree and less correlation between adjacent pixels.

Keywords:

Image Encryption, Image Scrambling, Magic Cube Rotation, Chaotic Sequences

19.一種基於 CDMA 擴頻技術的數字圖像零水印算法

胡猛越、田小林、夏紹瑋

澳門科技大學　資訊科技學院

會議/刊物名稱：

2011 4th International Congress on Image and Signal Processing，pp.1035-1038，2011 年 10 月，EI 檢索，會議文章

內容簡介：

本文根據通信中廣泛使用的 CDMA 擴頻技術提出並實現了一種新的基於 CDMA 擴頻技術的圖像零水印算法。新算法通過 DWT 變換取得圖像的變換域特徵，通過重新提取排列這些特徵後進行 CDMA 解碼得到特徵編碼，最後重構零水印。實驗結果顯示在完全不修改原圖像任何內容的前提下本水印算法具有較好的魯棒性。

關鍵詞：

CDMA、圖像零水印、DWT

19.Robust Digital Image Zero-watermarking Based on CDMA Technology

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Name of Conference/Journal:

2011 4th International Congress on Image and Signal Processing, pp.1035-1038, Oct 2011, EI indexed, conference article

Abstract:

A new digital image zero-watermarking algorithm based on CDMA technology has been proposed in this paper. Zero-watermarking is a new technique of watermarking and CDMA is a mature technology in communication. The new algorithm combines the characters of two techniques to create the image zero-watermark. The simulate experiments show that the new algorithm has good performance under multiple attacks.

Keywords:

CDMA, Image Zero-watermark, DWT

20.採用雙樹複小波和混合概率模型的光學相干層析圖像去噪

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澳門科技大學　資訊科技學院

會議/刊物名稱：

應用科學學報，第 29 卷，第 5 期，pp.467-472，2011 年 9 月，EI 檢索

內容簡介：

爲了去除光學相干層析圖像中的斑點噪聲，提出了基於雙樹複小波變換的混合概率模型 ProbShrink 算法。針對原始光學相干層析圖像中信號和噪聲的分布特點，在微觀層面引入了混合概率模型：將 OCT 圖像取對數後進行雙樹複小波變換，對於層狀邊緣中與邊緣點“方向一致”的小波係數，採用廣義高斯模型描述；對於其他小波係數，則採用高斯模型進行描述。而後採用改進的 ProbShrink 算法進行去噪。實驗結果表明，該算法在大幅提升信噪比的情況下保持邊緣銳度的相對穩定，優於傳統的基於小波變換的去噪方法。

關鍵詞：

光學相干層析、圖像去噪、雙樹複小波變換、混合概率模型、ProbShrink 算法

20.Denoising of Optical Coherence Tomography Image Using Dual-Tree Complex Wavelet Transform and Mixed Probability Model

Shu, P (Shu Peng); Sun, YK (Sun Yan-kui); Tian XL (Tian Xiao-lin)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

JOURNAL OF APPLIED SCIENCES, Vol. 29, No. 5, pp.467-472, Sep 2011, EI indexed

Abstract:

To remove speckle noise in optical coherence tomography (OCT) images, the ProbShrink algorithm based on the dual-tree complex wavelet transform and a mixed probability model is employed. After studying the signal and noise distribution in OCT images, a mixed probability model in microscopic-level is introduced. Logarithm of the OCT image is first decomposed using dual-tree complex wavelet transform. The coefficients consistent with edges obey the generalized Gaussian distribution, while others obey the Gaussian distribution. An improved ProbShrink algorithm is used to shrink the wavelet coefficients. Experiments show that this method can significantly improve signal-to-noise ratio while hold edge preservation index relatively steady. The performance is better than that of traditional wavelet based OCT image denoising methods.

Keywords:

Optical coherence tomography, Image denoising, Dual-tree complex wavelet transform, Mixed probability model, ProbShrink algorithm

21.基於模糊推理和最大平均去模糊的車輛顏色識別

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會議/刊物名稱：

能源 Procedia - 2011 年能源系統和電力國際會議，ESEP 2011，pp.1006-1010，2011 年 12 月 9 - 10 日，新加波，EI 檢索，會議文章

內容簡介：

本文提出了一個基於模糊推理系統的車輛顏色識別方法。首先根據之前車牌定位的先驗知識，使用一個簡單但有效的方法計算並分割出車頭部份待識別的顏色區域。然後把該顏色區域轉換爲 L*a*b* 色彩空間，通過隸屬函數進行模糊化，以及利用模糊規則進行模糊推理，最後使用最大平均法去模糊化，識別出車輛顏色。實驗證明本文提出的車輛顏色識別方法較其他色彩空間閾值和最近鄰分類法準確。

關鍵詞：

車輛顏色識別、模糊集理論、模糊規則、去模糊化

21.Vehicle color recognition using fuzzy rules and center of maximum defuzzification

Sam, KT (Sam Kam-Tong); Tian, XL (Tian Xiao-Lin)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

Energy Procedia - 2011 International Conference on Energy Systems and Electrical Power, ESEP 2011, pp.1006-1010, December 9, 2011 - December 10, 2011, Singapore, EI indexed, conference article

Abstract:

Color recognition is a vital yet challenging task in vehicle identification system as the vehicle color is affected by various factors such as daylight illumination, shadows and reflection in outdoor environment. This paper presents a solution for vehicle color recognition based on fuzzy set theory. The region of interest (ROI) is firstly segmented with the coordinates which are computed by using prior license plate detection result. Then the ROI is converted into L*a*b* color space, fuzzified with membership functions for each component, and infered by using a set of fuzzy rules. Finally, center of maximum (COM) defuzzification is employed to obtain the dominant color. The algorithm was tested on color images of Macao border crossing vehicles in various outdoor conditions. Experimental results show that high accuracy and efficiency were achieved by the proposed method.

Keywords:

Vehicle color recognition; fuzzy set theory; fuzzy rule; defuzzification

22.基於小波域圖像融合的多結構多尺度形態學邊緣檢測

劉靜、欒欣澤、田小林、孫延奎

澳門科技大學　資訊科技學院

會議/刊物名稱：

德國施普林格出版社（Springer）之電氣工程講義系列：信息控制、自動化與機器人 LNEE，第 133 卷，第 2 期，pp.685-691，2011 年 12 月，EI 檢索，會議文章

內容簡介：

爲了更好地提取圖像的邊緣信息，本文提出一種基於小波變換圖像融合的多結構多尺度形態學邊緣檢測新算法。新算法將多結構元素檢測到的邊緣和多尺度元素檢測到的邊緣經小波變換在頻域中進行融合。實驗結果表明，與相關的邊緣檢測算法相比，新算法可使圖像的邊緣及紋理信息都更加突出。

關鍵詞：

邊緣檢測；小波變換；圖像融合；多結構多尺度形態學

22.Morphological edge detection method of multi-structure and multi-scale based on image fusion in wavelet domain

Liu, J (Liu Jing); Luan, XZ (Luan Xinze); Tian, XL (Tian, Xiaolin); Sun, YU (Sun Yankui)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

Lecture Notes in Electrical Engineering, Informatics in Control, Automation and Robotics, Volume 133 LNEE, Issue Vol.2, December 24, 2011 - December 25, 2011, EI indexed, conference article

Abstract:

To extract the edge information from images in a better way, a new morphological edge detection method of multi-structure and multi-scale based on image fusion in wavelet domain has been proposed. The new method merges the edge detected by multi-structuring elements and multi-scale elements in wavelet domain via wavelet transformation to these detected edge images. Experimental results have shown that more detail edges and texture information could be detected by the proposed method, comparing with results from most recently proposed similar edge detection algorithm.

Keywords:

Edge detection, Wavelet transform, Image fusion, Multi-structure and multi-scale morphology.

23.基於數獨謎題的圖像置亂新算法

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澳門科技大學　資訊科技學院

會議/刊物名稱：

第四屆圖像和信號處理國際學術會議，CISP 2011，pp.737-740, 2011 年 10 月, 上海，中國，EI 檢索，會議文章

內容簡介：

本文提出了一種基于數獨謎題的圖像置亂新算法。該算法可以同時對圖像像素的位置和灰階水平進行置亂。實驗結果顯示該算法操作簡單、置亂效果好且置亂後破解不易。

關鍵詞：

圖像置亂、數獨謎題、算法

23.A novel image scrambling algorithm based on Sudoku puzzle

Zou, Y (Zou Yang); Tian, XL (Tian Xiaolin); Xiam SW (Xia Shaowei); Song, YL (Song Yali)

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Name of Conference/Journal:

Proceedings - 4th International Congress on Image and Signal Processing, CISP 2011, p.737-740, October 15, 2011 - October 17, 2011, Shanghai, China, EI indexed, conference article

Abstract:

This paper introduces a novel image scrambling algorithm based on Sudoku puzzle. According to the special property that every number from 1 to N appears only once in each row or column in an N*N Sudoku puzzle, a 1-1 relationship can be setup between two Sudoku puzzles and these two Sudoku puzzles will be used to map the original images to a scrambled one. This algorithm scrambles the image both at pixel level and bits level in order to increase the security of the information and to make the scrambled image appear containing no information. Due to the large numbers of the bases (pre-filled units in the Sudoku puzzle), this algorithm significantly improves the security of the information included in the scrambled image. The results show that the image scrambled by this algorithm appears including no information and the original image cannot be restored without right keys.

Keywords:

Image scrambling; Sudoku puzzle; Algorithm

24.用宇稱不守恆電子散射分析相對論平均場中 ω-ρ 非線性耦合的影響

劉健、任中洲、董鐵礦、聖宗強

澳門科技大學　資訊科技學院學院

會議/刊物名稱：

物理評論 C，第 84 卷，第 6 期，2011 年 12 月，SCI-E 檢索

內容簡介：

本文對宇稱不守恆電子散射的兩個問題進行了理論研究。一是研究了宇稱不守恆不對稱因子對 ω-ρ 非線性耦合參數 Λv 的敏感程度，而保持其它參數不變。二是用相對論平均場（RMF）的三套參數 NL3，FSUGold 和 IU-FSU 研究了原子核的中子密度和不對稱因子。對於第一個問題，我們發現隨著 Λv 的增加中子皮的厚度減小，相應的不對稱因子的振幅也降低。對於第二個問題，計算結果表明在某些散射角用不同的參數計算的不對稱因子差別很大。這些角是進行實驗的最佳選擇角度，有助於確定相對論平均場的參數。

關鍵詞：

宇稱不守恆不對稱因子、ω-ρ 非線性耦合、中子皮

24.Theoretical analysis of the nonlinear omega-rho coupling parameter in a relativistic mean-field model by parity-violating electron scattering

Liu, J (Liu Jian); Ren, ZZ (Ren Zhongzhou); Dong, TK (Dong Tiekuang); Sheng, ZQ (Sheng Zongqiang)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

PHYSICAL REVIEW C, Volume 84, Issue 6, DEC 2011, SCI-E indexed

Abstract:

Two investigations of parity-violating electron scattering are performed theoretically. One is to investigate the sensitivity of the theoretical parity-violating asymmetries to different nonlinear omega-rho coupling parameter Λv, while keeping the other parameters unchanged in the relativistic mean field (RMF) model. The other is to study the neutron properties and parity-violating asymmetries with three different RMF parameter sets: NL3, FSUGold, and IU-FSU. For the first topic, the neutron skin thickness reduces and corresponding oscillation amplitudes of the parity-violating asymmetries become small with the value of Λv increasing. For the second topic, results show there are significant differences between the parity-violating asymmetries in some scattering angles when calculated with different parameter sets. These angles are the best measuring angles in the experiments and the results are helpful to constrain the parameters in the RMF model.

Keywords:

Parity-violating asymmetries, Nonlinear omega-rho coupling parameter, Neutron skin

25.從中子洩露流量提取月面化學成分

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會議/刊物名稱：

中國物理 C，第 35 卷，第 8 期，pp.735-740，2011 年 8 月，SCI-E 檢索

內容簡介：

我們用蒙特卡羅輸運程序 Geant4 計算了從月球表面洩漏的中子流量。本文分析了快中子、超熱中子和熱中子的積分流量。對 20 種月壤樣品和 7 種主要礦物的計算結果顯示，快中子流量與平均原子量呈線性關係。同時，平均原子量嚴重受到鐵、鈦含量的調製，它們之間也存在線性關係。此外，超熱中子和熱中子流量之比與月壤的宏觀吸收截面線性相關， 而宏觀吸收截面隨鐵、鈦含量單調遞增。據此，我們可以得出結論：從中子流量能得到鐵、鈦含量的信息。

關鍵詞：

中子洩漏流量、Geant4、宏觀吸收截面

25.Chemical composition of the lunar surface from neutron leakage fluxes

Cheng, Y (Cheng Yu); Dong, TK (Dong Tie-Kuang); Dong, WD (Dong Wu-Dong); Ren, ZZ (Ren Zhong-Zhou); Xu, AA (Xu Ao-Ao)

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Name of Conference/Journal:

CHINESE PHYSICS C, Volume 35, Issue 8, pp.735-740, AUG 2011, SCI-E indexed

Abstract:

The neutron leakage fluxes from the lunar surface are calculated by Monte Carlo transport code based on Geant4. The integral fluxes of fast neutrons, epi-thermal neutrons and thermal neutrons are analyzed. Numerical results for 20 kinds of lunar soils and 7 minerals show that the fast neutron fluxes are linearly related to the average atomic mass numbers of the lunar materials used in simulations. Meanwhile, the average atomic mass numbers are strongly modulated by the abundances of iron (Fe) and titanium (Ti), and a linear relationship between the average atomic mass numbers and the abundances of Fe and Ti is found. Furthermore, the results show that the ratios of epi-thermal to thermal fluxes for lunar soils are linearly related to the macroscopic absorption cross sections of lunar materials, and that the macroscopic absorption cross sections monotonically increase with the abundances of Fe and Ti by a simple function. Then we reach the conclusion that the neutron fluxes can provide the information about the Fe and Ti contents.

Keywords:

Neutron leakage flux; Geant4; Macroscopic absorption cross section

26.IEEE 802.11 DCF 網絡中一種基於臨界負載的呼叫許可控制策略

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會議/刊物名稱：

IEEE-ACM 網絡學報，第 19 卷，第 5 期，pp.1485-1498，2011 年 10 月，SCI-E 檢索，EI 檢索

內容簡介：

針對 IEEE 802.11 DCF 單跳異構網絡，本文提出了一種簡單可行的呼叫許可控制策略。該策略是第一個通過對臨界負載進行漸進分析獲得的呼叫許可控制策略。這裡的臨界負載表示排隊穩定的閾值。該策略最顯著的特徵是它能夠快速方便地被執行，而無需網絡測量和複雜的計算。使用本策略，我們特別研究了 DCF 網絡中非均衡流量下音頻通信的容量。對自組織、基礎架構網絡以及各種非飽和流的大量模擬實驗表明本文提出的呼叫許可控制策略非常有效。

關鍵詞：

許可控制、緩衝大小、IEEE 802.11、流量負載

26.A Simple Critical-Load-Based CAC Scheme for IEEE 802.11 DCF Networks

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Name of Conference/Journal:

IEEE-ACM TRANSACTIONS ON NETWORKING, Volume 19, Issue 5, pp.1485-1498, OCT 2011, SCI-E indexed, EI indexed

Abstract:

This paper proposes a simple and practical call admission control (CAC) scheme for one-hop IEEE 802.11 distributed coordination function (DCF) networks in heterogeneous environments. The proposed scheme is the first CAC scheme derived from an asymptotic analysis of the critical traffic load, where the critical traffic load represents the threshold for queue stability. The salient feature of our CAC scheme is that it can be performed quickly and easily without the need for network performance measurements and complex calculations. Using the proposed scheme, we specifically investigate the voice capacity of 802.11 DCF networks with unbalanced traffic. Extensive simulations covering both ad hoc and infrastructure-based networks, and a variety of nonsaturated traffic types, show that the proposed CAC scheme is very effective.

Keywords:

Admission control; Buffer size; IEEE 802.11; Traffic load

27.IEEE 802.11 DCF 中任意緩衝大小的非飽和網絡模型

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會議/刊物名稱：

IEEE 移動計算學報，第 10 卷，第 9 期，pp.1248-1263，2011 年 9 月，SCI-E 檢索，EI 檢索

內容簡介：

針對 IEEE 802.11 DCF 非飽和網絡，本文提出了一個近似模型。該模型刻畫了節點任意緩衝大小對網絡性能的重要影響。我們發現增大緩衝大小只能稍微提高吞吐量，但是卻顯著地增加分組延時同時並不能必然引起丟包率的減少。 這個結果暗示提供大緩衝區對丟包敏感的應用幾乎沒有益處。就簡單性，計算速度和精確性而言我們的模型優于以前的模型。其簡單性源於我們用更新過程方法（而不是通常的多維馬爾可夫鏈模型）去分析衝突概率，這使得我們的模型更容易理解、分析和擴展。例如，利用該模型我們能夠研究衝突概率計算的收斂性問題。其計算速度上的顯著提高在於我們對模型中的關鍵參數的生成函數采用了有效的數值逆變換算法。其精確性源於我們仔細構建地一個服務時間分布模型。ns-2 模擬實驗表明提出的基於 M/G/1/K 的排隊論模型能够準確地預測包括丟包率和等待時間分佈在內的許多性能指標。與其他作者的結論相反，我們顯示 1）充分利用衝突概率和排隊動態的去耦合假設的類似于我們的非飽和 DCF 模型能够準確預測包括吞吐量在內的其他性能指標，2）DCF 網絡中實際的服務時間和等待時間分佈具有一個截斷的重尾形狀（也就是其 log-log 圖像呈現直線特徵）。本文的工作有助於 802.11 設備的程序開發人員選擇一個合適的緩衝大小，也可以幫助系統管理人員去預測網絡應用的性能。

關鍵詞：

IEEE 802.11、不定點分析、非飽和、M/G/1/K

27.Modeling Nonsaturated IEEE 802.11 DCF Networks Utilizing an Arbitrary Buffer Size

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Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

IEEE TRANSACTIONS ON MOBILE COMPUTING, Volume 10, Issue 9, pp.1248-1263, SEP 2011, SCI-E indexed, EI indexed

Abstract:

We propose an approximate model for a nonsaturated IEEE 802.11 DCF network. This model captures the significant influence of an arbitrary node transmit buffer size on the network performance. We find that increasing the buffer size can improve the throughput slightly but can lead to a dramatic increase in the packet delay without necessarily a corresponding reduction in the packet loss rate. This result suggests that there may be little benefit in provisioning very large buffers, even for loss-sensitive applications. Our model outperforms prior models in terms of simplicity, computation speed, and accuracy. The simplicity stems from using a renewal theory approach for the collision probability instead of the usual multidimensional Markov chain, and it makes our model easier to understand, manipulate and extend; for instance, we are able to use our model to investigate the important problem of convergence of the collision probability calculation. The remarkable improvement in the computation speed is due to the use of an efficient numerical transform inversion algorithm to invert generating functions of key parameters of the model. The accuracy is due to a carefully constructed model for the service time distribution. We verify our model using ns-2 simulation and show that our analytical results based on an M/G/1/K queuing model are able to accurately predict a wide range of performance metrics, including the packet loss rate and the waiting time distribution. In contradiction to claims by other authors, we show that 1) a nonsaturated DCF model like ours that makes use of decoupling assumptions for the collision probability and queuing dynamics can produce accurate predictions of metrics other than just the throughput, and 2) the actual service time and waiting time distributions for DCF networks have truncated heavy-tailed shapes (i.e., appear initially straight on a log-log plot) rather than exponential shapes. Our work will help developers select appropriate buffer sizes for 802.11 devices, and will help system administrators predict the performance of applications.

Keywords:

IEEE 802.11; Fixed point analysis; Nonsaturation; M/G/1/K

28.一個簡單的非飽和 IEEE 802.11e EDCA 網路模型

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會議/刊物名稱：

2011 年計算機通訊系統性能評估國際研討會, SPECTS 2011，pp.135-142，2011 年 6 月 27 – 30 日，荷蘭海牙，EI 檢索，會議文章

內容簡介：

針對節點緩衝較小的情況，本文提出了一個非飽和的 IEEE 802.11e EDCA 網絡模型。我們的模型比其他已有的模型更簡單更精確。我們的模型簡單是因爲 1）我們對飽和的衝突概率採用了 Kumar 的更新報酬方法，而不是大多數文獻所採用的 Bianchi 馬爾可夫鏈方法；2）我們用飽和狀態的分組傳輸嘗試率與分組到達概率的乘積去逼近非飽和狀態的分組傳輸嘗試率。大量的 ns-2 模擬實驗證實從我們的模型中所獲得的衝突概率與現有文獻中的結果相比最爲準確。衝突概率決定了所有其它性能指標，比如吞吐量和延時。我們指出由於以前的工作沒有建立精確的非飽和衝突概率模型，因此他們沒能正確地刻畫延時特徵。另外，我們的結果顯示只要精確地計算出了非飽和衝突概率，用於飽和情況的性能公式就能夠精確地刻畫非飽和情況的性能指標，因此我們沒必要去重新構建非飽和情況的性能公式。

關鍵詞：

IEEE 802.11e、EDCA、非飽和

28.A simple nonsaturated IEEE 802.11e EDCA model

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Name of Conference/Journal:

Proceedings of the 2011 International Symposium on Performance Evaluation of Computer and Telecommunication Systems, SPECTS 2011, pp.135-142, June 27, 2011 - June 30, 2011, The Hague, Netherlands, EI indexed, conference article

Abstract:

We model a nonsaturated IEEE 802.11e EDCA network for a small buffer size. Our model is much simpler and more accurate than others that have appeared in the literature. The model is simple because 1) we invoke the Kumar renewal-reward approach for the saturated collision probability rather than the Bianchi Markov-chain approach, as in previous work, and 2) we approximate the nonsaturated attempt rate by scaling the attempt rate of the saturated setting with the probability of a packet arrival. We verify the accuracy of our model using ns-2 simulation and show that the collision probability obtained in our model is the most accurate amongst related work. The collision probability governs all other performance metrics, such as throughputs and delay characteristics; we show that since prior works do not model the nonsaturated collision probabilities accurately, they fail to correctly capture the delay characteristics. Also, our results indicate that if we accurately model the nonsaturated collision probability, the same formulas used for the saturated performance descriptors can produce accurate results for nonsaturated operation, and therefore is unnecessary to construct specific formulas for nonsaturated performance descriptors, as done in previous work.

Keywords:

IEEE 802.11e, EDCA, nonsaturation

29.嫦娥一號太陽風離子數據的三維可視化

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會議/刊物名稱：

計算機與地球科學，第 37 卷，第 10 期，pp.1711-1718，2011 年 10 月，SCI-E 檢索，EI 檢索

內容簡介：

嫦娥一號是中國第一個繞月探測衛星，於 2007 年發射。它帶有太陽風離子探測器（簡寫爲 SWID）。它送回了幾十個 GB 的太陽風離子探測數據。這些數據對於增進瞭解近月空間環境是十分重要的。然而，要充分瞭解和分析這些數據是相當困難的。這不僅是它的數據量大，而且還十分複雜。

因此，我們提出了一個新的三維可視化方法，不僅較之傳統的一維，二維可視化方法更爲直觀，而且對離子微分通量的入射方向以及嫦娥一號相對於太陽，地球及月亮的相對空間位置給出了更好的說明。首先，設定了一個更加適合本項研究的坐標系----月心太陽黃道坐標系（SSE）。接著，將太陽風離子微分通量由地心太陽黃道坐標系及衛星的月心坐標系轉換到月心太陽黃道坐標系，隨後在該坐標系中實現太陽風離子微分通量分布的三維可視化。

這一可視化方法集成到一個交互式可視化分析軟件工具中，稱爲 vtSWIDs, 用 MATLAB 開發。它可以讓研究者瀏覽多個數據記錄并實時觀察可視化結果。這一工具也提供一些有用的統計分析功能，並易於擴展。

關鍵詞：

可視化、嫦娥一號、太陽風、近月空間環境

29.3D visualization of solar wind ion data from the Chang'E-1 exploration

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Name of Conference/Journal:

COMPUTERS & GEOSCIENCES, Volume 37, Issue 10, pp.1711-1718, OCT 2011, SCI-E indexed, EI-indexed

Abstract:

Chang'E-1 (abbreviation CE-1), China's first Moon-orbiting spacecraft launched in 2007, carried equipment called the Solar Wind Ion Detector (abbreviation SWID), which sent back tens of gigabytes of solar wind ion differential number flux data. These data are essential for furthering our understanding of the cislunar space environment. However, to fully comprehend and analyze these data presents considerable difficulties, not only because of their huge size (57 GB), but also because of their complexity. Therefore, a new 3D visualization method is developed to give a more intuitive representation than traditional 1D and 2D visualizations, and in particular to offer a better indication of the direction of the incident ion differential number flux and the relative spatial position of CE-1 with respect to the Sun, the Earth, and the Moon. First, a coordinate system named Selenocentric Solar Ecliptic (SSE) which is more suitable for our goal is chosen, and solar wind ion differential number flux vectors in SSE are calculated from Geocentric Solar Ecliptic System (GSE) and Moon Center Coordinate (MCC) coordinates of the spacecraft, and then the ion differential number flux distribution in SSE is visualized in 3D space. This visualization method is integrated into an interactive visualization analysis software tool named vtSWIDs, developed in MATLAB, which enables researchers to browse through numerous records and manipulate the visualization results in real time. The tool also provides some useful statistical analysis functions, and can be easily expanded. (C) 2011 Elsevier Ltd. All rights reserved.

Keywords:

Visualization; Chang'E-1; Solar wind; Cislunar space environment

30.應用雙三次細分曲面小波的三維多分辨率月表模型及交互式可視化工具

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澳門科技大學　資訊科技學院學院

會議/刊物名稱：

計算機與地球科學，第 37 卷，第 9 期，pp.1460-1467，2011 年 9 月，SCI-E 檢索，EI 檢索

內容簡介：

嫦娥一號探月衛星得到的激光高度計數據 （LAM）約有 800，6000 個點。如何利用它以構造月表模型及可視化是一個挑戰。本文提出了一個基于細分曲面小波的三維多分辨率月表近似模型，以及一個在普通個人計算機上以接近實時速度繪製三維曲面的高效工具。所生成的曲面模型在所有的點均爲 C2 連續。本文的建模和可視化方法可以應用到其它的全球性數據。

關鍵詞：

嫦娥一號、月球表面擬合、交互可視化、激光高度計、細分曲面小波

30.A 3D multiresolution lunar surface model using bicubic subdivision-surface wavelets, with interactive visualization tools

Sun, YK (Sun Yankui); Mao, KM (Mao Kaimin); Zhang, T (Zhang Tian); Tang, ZS (Tang Zesheng)

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Name of Conference/Journal:

COMPUTERS & GEOSCIENCES, Volume 37, Issue 9, pp.1460-1467, SEP 2011, SCI-E indexed, EI-indexed

Abstract:

The laser altimetry (LAM) dataset obtained by Chang'E-1 (CE-1) contains about 8.6 million points, and how to use it to model and visualize the lunar surface is a problem. This paper presents a 3D, multiresolution, approximate lunar surface model based on a subdivision-surface wavelet, as well as efficient tools for rendering the three-dimensional surface at speeds approaching real-time interaction in a general Personal Computer (PC) environment. The surface model is C (2)-continuous at nearly all points. The modeling and visualization method could be applied to most other global data sets. (C) 2011 Elsevier Ltd. All rights reserved.

Keywords:

Chang'E-1; Moon surface fitting; Interactive visualization; Laser altimeter; Subdivision-surface wavele

31.一種應用於實時烟霧模擬的高效自適應渦度粒子方法

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會議/刊物名稱：

第 12 屆計算機輔助設計與計算機圖形學國際會議 (CAD/Graphics 2011)，pp. 317-324，2011 年 9 月 15 日至 9 月 17 日，中國，濟南，EI 檢索，會議文章

內容簡介：

烟霧模擬是計算機動畫領域其中的一個有興題目，它通常涉及湍流的產生。高效地產生具真實感的湍流已成爲烟霧模擬中的一大挑戰。渦度粒子方法是一種混合方法，它結合了網格與粒子方法，常用於產生湍流的細節。然而，它亦有可能由於初始條件及所用的渦度力方法引致不合理的走樣。本文提出了一種新的基於自適應渦度限制的渦度力方法來處理上述問題。在這個方法中，自適應渦度限制力隨螺旋度變化，因而使原來由渦度粒子驅動的網格模擬更改爲由速度場驅動。而且我們引進了一種自適應渦度粒子方法，令受影響的區域隨速度變化以及刪除在渦度力方法中具有零速度的粒子來改善模擬的計算效率。我們利用 CUDA 在 GPU 上實現了一個整合了我們方法的并行烟霧模擬器。實驗結果表明，我們提出的方法對於實時烟霧模擬是有效且高效的。

關鍵詞：

烟霧模擬、烟霧模擬、自適應渦度粒子

31.An efficient adaptive vortex particle method for real-time smoke simulation

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Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

Proceedings - 12th International Conference on Computer-Aided Design and Computer Graphics, CAD/Graphics 2011, pp.317-324, September 15, 2011 - September 17, 2011, Jinan, China, EI indexed, conference article

Abstract:

Smoke simulation is one of the interesting topics in computer animation and it usually involves turbulence generation. Efficient generation of realistic turbulent flows becomes one of the challenges in smoke simulation. Vortex particle method, which is a hybrid method that combines grid-based and particle-based approaches, is often used for generating turbulent details. However, it may cause irrational artifacts due to its initial condition and vorticity forcing approach used. In this paper, a new vorticity forcing approach based on the spatial adaptive vorticity confinement is proposed to address this problem. In this approach, the spatial adaptive vorticity confinement force varies with helicity, leading to the fact that the grid-based simulation driven by the vortex particle is now based on the velocity field. Furthermore, we introduce an adaptive vortex particle approach to improve the computational efficiency of the simulation by making the influencing region adapt with the velocity and eliminating those particles with zero velocity in the vorticity forcing method. A parallel smoke simulator integrating our approaches has been implemented using GPUswith CUDA. Experimental results demonstrate that our proposed methods are efficient and effective for real-time smoke simulation.

Keywords:

Smoke Simulation; Fluid Simulation; Adpative Vortex Paricle

32.應用於可視化嫦娥一號太陽風離子數據的直觀軟件架構

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會議/刊物名稱：

第四屆圖像與信號處理國際會議 (CISP 2011)，pp.2168-2172，2011 年 10 月 15 日-17 日，中國，上海，EI 檢索，會議文章

內容簡介：

嫦娥一號是中國首個無人探月衛星，它有八個載荷儀器，包括兩個太陽風離子探測器。這些探測器已獲得數量龐大的太陽風離子數據。這些數據對於分析月球等離子體環境非常重要。預期一個直觀的軟件架構將大大地增加分析數據的效率與效能。本文提出了一個應用於可視化嫦娥一號太陽風離子數據的直觀軟件架構。軟件架構提供三個顯示窗口來分別顯示衛星相對於月球的當前的位置，能帶，太陽風數據的體繪製圖像。實驗結果表明，軟件架構能有效地以直觀的方式爲空間科學家提供有關太陽風離子數據的有用信息。

關鍵詞：

嫦娥一號、太陽風離子數據、可視化

32.An intuitive software framework for visualizing the solar wind ion data from Chang'E-1 lunar orbiter

Xiong, JX (Xiong Jixin); Wong, HC (Wong Hon-Cheng);
Wong, UH (Wong, Un-Hong); Wang XY (Wang, Xinyue); Reme, Henri

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

Proceedings - 4th International Congress on Image and Signal Processing, CISP 2011, pp.2168-2172, October 15, 2011 - October 17, 2011, Shanghai, China, EI indexed, conference article

Abstract:

Chang'E-1 is the first Chinese unmanned lunar orbiter which contains eight sets of payloads including two solar wind ion detectors as one set of them. These solar wind ion detectors had obtained tens of gigabytes of solar wind ion data, which are very important for analyzing the lunar plasma environment. It is expected that an intuitive visualization tool would significantly improve the efficiency and effectiveness of the analysis of these data. In this paper, we present an intuitive soft-ware framework for visualizing the solar wind ion data obtained from Chang'E-1 lunar orbiter. There are three display windows in the software framework, providing the current position of the orbiter related to the Moon, the energy bounds, and the volume rendered image of the solar wind data, respectively. Experimental results show that our software framework can effectively provide space scientists useful information of the solar wind ion data in an intuitive manner.

Keywords:

Chang’E-1; Solar Wind Ion Data; Visualization

33.基於自適應渦度限制法增強湍流效果的實時烟霧模擬

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會議/刊物名稱：

計算機動畫與虛擬世界，第 22 卷，第 2-3 期，pp.107-114，2011 年 4-5 月，SCI-E 檢索，EI 檢索

內容簡介：

湍流模擬近期成爲流體動畫的研究焦點，用以產生細小的旋渦特徵。作爲一種廣泛被採用的方法，渦度限制法把失去的能量耗散重新注入流體中。然而，當大的渦度因子 ε 被使用時，前人的工作將有不足，原因是當數 ε 被應用於整個模擬空間。本文提出一個嶄新的方法來增強湍流的視覺效果，它是基於一種渦度因子強度隨螺旋度變化的自適應渦度限制法。爲了進一步增加湍流的細節。我們不僅把我們提出的渦度限制法用於低解析度網格，還用於高解析度網格來產生子網格水平的湍流。由於不可壓縮的 Navier-Stokes 方程只需在低解析度網格上進行求解，因此可以省下大量的計算時間。實驗結果表明，我們的方法能實時地產生具真實感及增強湍流效果的烟霧動畫。

關鍵詞：

烟霧動畫、渦度限制法、湍流、流體模擬

33.Real-time smoke simulation with improved turbulence by spatial adaptive vorticity confinement

He, SF (He Shengfeng); Wong, HC (Wong Hon-Cheng); Pang, WM (Pang Wai-Man); Wong, UH (Wong, Un-Hong)

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Name of Conference/Journal:

Computer Animation and Virtual Worlds, Volume 22, Issue 2-3, pp.107-114, April-May 2011, SCI-E indexed, EI indexed

Abstract:

Turbulence modeling has recently drawn many attentions in fluid animation to generate small-scale rolling features. Being one of the widely adopted approaches, vorticity confinement method re-injects lost energy dissipation back to the flow. However, previous works suffer from deficiency when large vorticity coefficient ε is used, due to the fact that constan ε is applied all over the simulated domain. In this paper, we propose a novel approach to enhance the visual effect by employing an adaptive vorticity confinement which varies the strength with respect to the helicity instead of a user-defined constant. To further improve fine details in turbulent flows, we are not only applying our proposed vorticity confinement to low-resolution grid, but also on a finer grid to generate sub-grid level turbulence. Since the incompressible Navier-Stokes equations are solved only in low-resolution grid, this saves a significant amount of computation. Several experiments demonstrate that our method can produce realistic smoke animation with enhanced turbulence effects in real-time.

Keywords:

Smoke animation; Vorticity Confinement; Turbulence; Fluid Simulation

34.基於圖形處理器的高效率磁流體力學模擬

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會議/刊物名稱：

Computer Physics Communications，第 182 卷，第 10 期，pp.2132-2160，2011 年 10 月，SCI-E 檢索，EI 檢索

內容簡介：

基於磁流體力學(MHD)方程的磁流體力學模擬已成爲模擬各種包括實驗等離子，天體物理等離子，空間等離子體應用中的現象的有力工具。一般來說，用於求解理想磁流體力學的高解析度方法需要的計算量十分大，往往需要使用計算集群或超級計算來運行實現了這些方法的程序。隨著計算統一設備體系結構(CUDA)的出現，現代圖形圖形處理器(GPUs)能爲科學計算提供另一種并行計算方式。以作者的認知，本文提出了國際上首個基於圖形處理器及計算統一設備體系結構的磁流體力學模擬，名爲 GPU-MHD，用以加快模擬過程。GPU-MHD 支持單精度及雙精度的計算。我們進行了一系列的數值測試以證明程序的正確性。亦比較了單精度與雙精度計算的精確性。並在 NVIDIA GeForce GTX 295 (GT200 體系結構)及 GTX 480 (Fermi 體系結構)上進行了單精度與雙精度計算的效能測試。這些測試表明，比較基於中央處理器的實現，我們提出的基於圖形處理器的實現在不同的圖形處理器上能獲得 1 至 2 個數量級計算效率的提升。另外，我們推展了 GPU-MHD 以支持模擬結果的可視化。因此整個磁流體力學模擬及可視化過程都可以在圖形處理器上進行。

關鍵詞：

磁流體力學模擬、圖形處理器、CUDA、並行計算

34.Efficient magnetohydrodynamic simulations on graphics processing units with CUDA

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Name of Conference/Journal:

Computer Physics Communications, Volume 182, Issue 10, pp.2132-2160, October 2011, SCI-E indexed, EI indexed

Abstract:

Magnetohydrodynamic (MHD) simulations based on the ideal MHD equations have become a powerful tool for modeling phenomena in a wide range of applications including laboratory, astrophysical, and space plasmas. In general, high-resolution methods for solving the ideal MHD equations are computationally expensive and Beowulf clusters or even supercomputers are often used to run the codes that implemented these methods. With the advent of the Compute Unified Device Architecture (CUDA), modern graphics processing units (GPUs) provide an alternative approach to parallel computing for scientific simulations. In this paper we present, to the best of the authors knowledge, the first implementation of MHD simulations entirely on GPUs with CUDA, named GPU-MHD, to accelerate the simulation process. GPU-MHD supports both single and double precision computations. A series of numerical tests have been performed to validate the correctness of our code. Accuracy evaluation by comparing single and double precision computation results is also given. Performance measurements of both single and double precision are conducted on both the NVIDIA GeForce GTX 295 (GT200 architecture) and GTX 480 (Fermi architecture) graphics cards. These measurements show that our GPU-based implementation achieves between one and two orders of magnitude of improvement depending on the graphics card used, the problem size, and the precision when comparing to the original serial CPU MHD implementation. In addition, we extend GPU-MHD to support the visualization of the simulation results and thus the whole MHD simulation and visualization process can be performed entirely on GPUs.

Keywords:

MHD simulations, GPUs, CUDA, Parallel Computing

35.IEEE 802.11e HCCA 無線網絡中等間隔設計的改進

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會議/刊物名稱：

2011 年計算機與通信系統的性能評估國際會議，SPECTS 2011，pp.160-166，2011 年 6 月 27-30，荷蘭，海牙，EI 檢索，會議文章

內容簡介：

最近提出的基於等間隔的調度策略推廣和改進了 IEEE 802.11e 標準中的參考調度策略。參考設計用一個共同的周期調度所有的數據流，等間隔設計對參考設計的改進是用不同的周期調度不同的數據流，從而可提高帶寬利用率 22%以上。本文對等間隔設計進行改進，提出等間隔δ設計和等間隔 l 設計。等間隔δ設計對等間隔設計的改進是在發送機會的計算方法中引入了一個δ因子，使之能用更長的間隔調度數據流；數值結果顯示等間隔δ設計比等間隔設計的帶寬利用率高 8%以上。等間隔設計沒有考慮丟包率，等間隔 l 設計對等間隔設計的改進是可以保證數據包的丟包率小于預設值；對高斯分布的 VBR 數據流，數值結果顯示等間隔 l 設計比等間隔設計的帶寬利用率高 54%以上。此外，本文提出的兩個設計還可以減少由等間隔設計引入的計算複雜性。

關鍵詞：

混合控制信道訪問方式、服務質量、等間隔、帶寬利用率、丟包

35.Improving the equal-spacing design in IEEE 802.11e HCCA wireless networks

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Name of Conference/Journal:

Proceedings of the 2011 International Symposium on Performance Evaluation of Computer and Telecommunication Systems, SPECTS 2011, pp.160-166, June 27, 2011 - June 30, 2011, The Hague, Netherlands, EI indexed, conference article

Abstract:

In recent studies, an equal-spacing-based (equal-SP) design was developed to generalize and enhance the reference design in IEEE 802.11e standard. Different from the reference design in which all streams will be scheduled in a common minimum spacing, the equal-SP design may schedule different streams with different spacings and it might improve bandwidth utilization of the reference design, up to 22% or more. This paper proposes two new designs: the equal-SP-δ and equal-SP-l designs, to improve the equal-SP design further. Compared with the equal-SP design, the equal-SP-δ design introduces a δ-factor in the TXOP calculation and schedules different streams with longer spacings; numerical results show that it has a potential of improving bandwidth utilization, up to 8% or more. The equal-SP-l design can guarantee packet loss probability, which are not considered in the equal-SP design, with Gaussian traffic to approximate VBR traffic over different spacings; numerical results show it has a potential of improving bandwidth utilization, up to 54% or more, in contrast with the related design. Besides, the proposed two designs might reduce the additional computational complexity introduced in the equal-SP design.

Keywords:

HCCA; QoS; Equal-SP; Bandwidth utilization; Packet loss

36.車載自組織網絡中隨機更改偽碼方案的解析模型

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澳門科技大學　通識教育部

會議/刊物名稱：

2011 年網絡計算與信息安全國際會議，pp.141-145，2011 年 5 月 14-15 日，中國，廣西，桂林，EI 檢索，會議文章

內容簡介：

車載自組織網絡中，通過更改偽碼來保護位置隱私是一種被認可的方法，但是大部分更改偽碼方法的有效性缺少詳細的理論分析。在這篇論文中，我們對最簡單的隨機更改偽碼方法進行數學建模，從而對它提供的位置隱私性進行量化分析。另外，根據提出的解析模型，我們比較了均勻和基於年齡分布的兩種偽碼的性能。研究結果表明，均勻分布比基於年齡分布的偽碼能提供更好的隱私性。通過數值模擬驗證了解析模型的正確性。

關鍵詞：

隨機更改偽碼、位置隱私、車載自組織網絡

36.An analytical model for random changing pseudonyms scheme in VANETs

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Name of Conference/Journal:

Proceedings - 2011 International Conference on Network Computing and Information Security, NCIS 2011, pp.141-145, May 14, 2011 - May 15, 2011, Guilin, Guangxi, China, EI indexed, conference article

Abstract:

Changing pseudonyms are commonly accepted as one approach to protect location privacy in VANETs, but the effectiveness of most changing pseudonyms schemes have never been investigated rigorously. In this paper, we present a detailed analytical model based on a kind of simplest scheme, called Random Changing Pseudonyms (RCP), to quantify the level of location privacy provided by this scheme. Furthermore, according to the proposed model, we analyze and compare two special distributions, i.e., uniform discrete and age-based distributions. The results show that RCP scheme with uniform discrete distribution is better than with age-based distribution on protecting location privacy in VANETs. The accuracy of this model is verified by a set of simulations.

Keywords:

Randomly changing pseudonyms; Location privacy; VANET

37.IEEE 802.11e HCCA 無線網絡中一種改進的調度策略

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會議/刊物名稱：

澳門科技大學學報，第 5 卷，第 1 期，pp.1-7，2011 年 6 月

內容簡介：

爲了提高帶寬利用率，最近提出的基於等間隔的調度策略改進了 IEEE 802.11e 標準中的參考調度策略。等間隔設計的主要思想是通過增長調度間隔來顯著提高參考調度策略的帶寬利用率。本文對等間隔設計進行改進，提出等間隔δ設計。和等間隔設計相比，等間隔δ設計在發送機會的計算方法中引入了一個δ因子，使之能用更長的間隔調度不同的實時流；數值結果顯示等間隔δ設計在等間隔設計的基礎上進一步提高帶寬利用率 8%以上。此外，等間隔δ設計還可以減少由等間隔設計引入的計算複雜性。

關鍵詞：

混合控制信道訪問方式、服務質量、等間隔、帶寬利用率

37.An Enhanced Scheduling Scheme in IEEE 802.11e HCCA Wireless Networks

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Name of Conference/Journal:

Journal of Macau University of Science and Technology, Volume 5, Issue 1, pp.1-7, JUN 2011

Abstract:

To improve bandwidth utilization, a recent scheme called the equal-spacing (equal-SP) design was developed to enhance the reference design introduced in IEEE 802.11e HCCA wireless networks. The equal-SP design can remarkably improve the bandwidth utilization of the reference design by lengthening scheduling spacings of different streams. This paper proposes an equal-SP-δ design to improve the equal-SP design further. Compared with the equal-SP design, the equal-SP-δ design introduces a δ-factor in the TXOP calculation and schedules different real-time streams with longer spacings; numerical results show that it has a potential of improving bandwidth utilization, up to 8% or more. Besides, the equal-SP-δ design might reduce the additional computational complexity introduced in the equal-SP design.

Keywords:

HCCA; QoS; Equal-SP; Bandwidth utilization IEEE

38.IEEE 802.11b/n/ad MAC 協議綜述

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會議/刊物名稱：

澳門科技大學學報，第 5 卷，第 2 期，pp.1-8，2011 年 12 月

內容簡介：

2009 年已經正式批准的無線局域網標準 IEEE 802.11n 將吞吐量提高到每秒 100 兆比特，正在制定的千兆比特無線局域網標準 IEEE 802.11ad 將吞吐量提高到每秒至少 1 吉比特。雖然這兩種新的標準都是在傳統的無線局域網標準 IEEE 802.11b 的基礎上，爲了大幅度提高吞吐量而進行的改進，但是它們采用了不同的物理層和 MAC 層技術。這篇文章主要比較了 IEEE 802.11 b/n/ad 三個標準，介紹了 IEEE 802.11n 和 ad 兩個標準在物理層上的不同改進方法，特別是，重點討論了這兩個標準在 MAC 層上不同的增強技術。

關鍵詞：

MAC protocols、IEEE 802.11b/n/ad

38.A Tutorial Review of MAC Protocols for IEEE 802.11b/n/ad

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Name of Conference/Journal:

Journal of Macau University of Science and Technology, Volume 5, Issue 2, pp.1-8, DEC 2011

Abstract:

WLAN standard IEEE 802.11n that was just ratified in 2009 can achieve higher than 100 Mbps throughput, and Gigabit WLAN standard IEEE 802.11ad that is under development targets greater than 1 Gbps throughput. Both of them significantly increase the throughput of the legacy WLAN standard IEEE 802.11b, but they adopt different amendments in physical layer and MAC layer. This paper compares the differences among the IEEE 802.11b/n/ad, presents the different improvements on the physical layer and specifically highlights different enhancements in MAC layer of 802.11n/ad.

Keywords:

MAC protocols; IEEE 802.11b/n/ad

39.基於混合型多結點樣條插值曲面的圖像放大方法

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會議/刊物名稱：

中山大學學報（自然科學版），第 50 卷，第 2 期，pp.16-19 及 24，2011 年 3 月，中文核心期刊要目總覽(2008)

內容簡介：

多結點樣條插值是一類曲線曲面的擬合方法，爲了探索高質量的圖像放大方法，提出了一種利用混合型多結點樣條插值曲面的圖像放大方法，該方法爲數字圖像的每一個色彩分量構造一個分塊混合型多結點樣條插值曲面。試驗結果表明該方法對圖像的放大質量較高.爲了提高該方法的效率，描述了一種加速算法，該加速算法在數字漫游系統與動畫制作等方面可望得到應用。

關鍵詞：

多結點樣條、插值曲面、圖像放大

39.A Method of Image Zooming-in Based on Mixed Many-knot Spline Surface Interpolation

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Name of Conference/Journal:

ACTA SCIENTIARUM NATURALIUM UNIVERSITATIS SUNYATSENI, Volume 50, Issue 2, pp.16-19 & 24, MAR 2011, A Guide to the Core Journal of China (PKU)

Abstract:

Many-knot spline interpolation is a class of curve and surface fitting method, In order to explore a new method for obtaining a zoom in image with a superior quality; the one dimensional many-knot spline curves algorithm is extended to that of two dimensions, which is applied to image zooming. It constructs a mixed piecewise many-knot spline interpolation surface for each color component of a digital image. The experimental results show that the method can improve the quality of zoomed image greatly. A fast algorithm is also described for efficiency, which is applied in digital pan and computer animation, etc.

Keywords:

Many-knot spline; Surface interpolation; Image zooming-in

40.嫦娥一號高能粒子分布數據的可視化

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會議/刊物名稱：

計算機輔助設計與圖形學學報，第 23 卷，第 4 期，pp.682-688，2011 年 4 月，EI 檢索，中文核心期刊要目總覽(2008)

內容簡介：

針對大規模嫦娥一號高能粒子數據，提出採用可視化分析其數據分佈的一套方法。利用各時刻獲取的粒子通量來圖示高能粒子通量隨時間的變化情況；並將一段時間內粒子通量分成若干區間，利用直方圖顯示不同通量範圍內粒子數的統計分佈;針對月表各點粒子通量所處的不同範圍，給出月表不同通量區間內粒子分佈的三維顯示；基於月表各投影網格對應的平均粒子通量，給出月表平均通量分佈的三維顯示；通過引入月地日夾角參數，可視化隨月地日夾角變化的通量分佈。基於文中方法設計并實現一個高能粒子可視化輔助分析系統,對不同月份、不同種類的高能粒子數據進行快速瀏覽和分析，大大提高了對高能粒子分佈數據的分析效率。

關鍵詞：

可視化、嫦娥一號、高能粒子

40.Visualizing the distribution of the energetic particle data acquired by Chang'E-1 exploration

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Name of Conference/Journal:

Jisuanji Fuzhu Sheji Yu Tuxingxue Xuebao/Journal of Computer-Aided Design and Computer Graphics, Volume 23, Issue 4, pp.682-688, April 2011, EI indexed

Abstract:

This paper introduces a set of visualization techniques for analyzing the distribution of large-scale energetic particle datasets acquired by Chang'E-1 explorer. Flux in data records is used to visualize time-based flux distribution. The energetic particle data distribution in a time period is divided into different flux ranges, and is depicted with the histogram technique. Further, the energetic particle data distribution in different flux sections on the Moon is visualized as a texture map in a three-dimensional moon model. The average flux distribution on the Moon and the moon-earth-sun angle varying distribution are also visualized. We design and implement an effective visual analysis system to allow for effective browsing and analysis of datasets in different months, which significantly improves the analytical efficiency of the energetic particle data.

Keywords:

Visualization; Chang' E-1; Energetic particle

41.嫦娥一號太陽風離子數據在月表分布的可視化

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會議/刊物名稱：

中國圖象圖形學報 A，第 16 卷，第 3 期，pp.488-494，2011 年 3 月，中文核心期刊要目總覽(2008)

內容簡介：

根據嫦娥一號探月衛星獲取的近月空間太陽風離子流量數據的特點，提出了對該數據的一種可視化表達方法。該方法首先從一個月的太陽風離子流數據中分離出向陽面或背陽面數據，從每一條記錄中抽取所需的能級部分對其流量求和作爲該記錄的流量強度；根據當時衛星星下點的經緯度坐標將其投影到月球的均勻經緯度網格中，並求出每個網格中的平均離子流量強度，然後對該經緯度網格進行一種地圖投影並選擇一種色彩方案以表示不同強度的流量，從而得到離子流量在月表向陽面或背陽面的直觀可視化結果。借助該方法能夠對大量的太陽風數據在月面附近空間分布的總體變化趨勢及特點進行顯示與分析。實際數據實驗結果驗證了該方法的有效性。

關鍵詞：

可視化、嫦娥一號、近月空間環境、太陽風離子流量

41.Visualization of the distribution of the solar wind ion flux data above the moon surface based on Chang' E-1 exploration

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Name of Conference/Journal:

JOURNAL OF IMAGE AND GRAPHICS, Volume 16, Issue 3, pp.488-494, MAR 2011, A Guide to the Core Journal of China (PKU)

Abstract:

Based on the characteristics of the solar wind ion flux data fetched by Chang'E-1 (CE-1) moon-orbiting spacecraft, a new visualization analysis method for these data is developed. First, all the data fetched in a month is separated depending on whether they are obtained on the day-side or the night-side of the moon. Then the total flux intensity distributed in certain energy levels is calculated as the sole flux intensity value for each data record, and these flux intensity values are projected to an even longitude-latitude grid of the moon surface and an average intensity value is calculated for each grid which has multiple intensity values projected in. Finally after a map projection, e.g. Hammer projection to give a more conventional representation of the moon surface and a color theme is chosen to represent different intensities of ion flux, and so an intuitive visualization result of the distribution of ion flux on the day·side or the night-side of the moon in a month is obtained. By using this method it is possible to visualize and analyze the mass data of the distribution and fluctuation of solar wind ion flux in cislunar environment. The validity of this method is proven by the results of actual experiments.

Keywords:

Visualization; Chang'E-1; Cislunar space environment; Solar wind ion flux

42.基於非均勻矩形剖分的一種新的視頻信息僞裝方法

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會議/刊物名稱：

第十四屆 IEEE 計算科學與工程國際會議(CSE2011), pp.57-61, 2011 年 8 月 24-26 日，中國遼寧大連，EI 檢索，會議文章

內容簡介：

本文提出了一種新的視頻信息隱藏方法，可以將未被壓縮的秘密視頻流隱藏於等大小的載密視頻流中。秘密視頻的每一幀將被非均勻矩形剖分, 所得到的分區編碼可視爲原始幀的一個加密版本。這些編碼將被隱藏在宿主視頻每幀像素的低 4 位元中。實驗結果表明，該算法可以在沒有明顯的失真情況下將一視 頻流隱藏於等大小的宿主視頻流中。

關鍵詞：

視頻僞裝、圖像僞裝、非均勻矩形剖分、最低有效位

42.A novel video steganography based on non-uniform rectangular partition

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Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

Proc. - 14th IEEE Int. Conf. on Computational Science and Engineering, CSE 2011 and 11th Int. Symp. on Pervasive Systems, Algorithms, and Networks, I-SPA 2011 and 10th IEEE Int. Conf. on IUCC 2011, pp.57-61, August 24, 2011 - August 26, 2011, alian, Liaoning, China, EI indexed, conference article

Abstract:

This paper proposes a novel Video Steganography which can hide an uncompressed secret video stream in a host video stream with almost the same size. Each frame of the secret video will be Non-uniform rectangular partitioned and the partitioned codes obtained can be an encrypted version of the original frame. These codes will be hidden in the Least 4 Significant Bits of each frames of the host video. Experimental results showed that this algorithm can hide a same-size video in the host video without obvious distortion in the host video.

Keywords:

Video Steganography, Image Steganography, Non-uniformed rectangular partition, LSB

43.基於非均勻矩形剖分的改進 JPEG 量化技術

余建德、紀念、齊東旭、唐澤聖

澳門科技大學　資訊科技學院

會議/刊物名稱：

2011 年度無線網路與信怎系統國際會議，pp.179-187, 2011 年 11 月 30 - 12 月 1 日，澳門，會議文章

內容簡介：

爲了進一步提高標準 JPEG 壓縮算法的效率，本文提出一種基於非均勻矩形剖分的自適應量化技術。對圖像進行非均勻矩形剖分後，可得到每個 8*8 子圖像塊的紋理特徵，這種紋理特徵可用於選擇對應不同紋理複雜度的不同量化表。對一些標準的圖像使用本文算法進行壓縮試驗後，實驗結果表明，本文所提出的方法是有效而可行的，並且在相同條件下與標準 JPEG 相比時,有更好的圖像重建質量及壓縮比率。

關鍵詞：

JPEG, DCT, 自適應量化表, 非均勻矩形剖分

43.An adaptive Quantization Technique for JPEG based on Non-uniform Rectangular Partition

U, KT (U KinTak); Ji, N (Ji Nian); Qi, DX (Qi Dongxu);Tang ZS (Tang Zesheng)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

2011 International Conference on Wireless Networks and Information System (ICFWI 2011), pp.179-187, November 30 ~ December 1, 2011, Macao, China, conference article

Abstract:

To further improve the efficiency of standard JPEG compression algorithm, an adaptive quantization technique based on the non-uniform rectangular partition is proposed in this paper. The texture characteristics of each 8*8 block of the image can be obtained to choose the different quantization tables which are corresponding to different texture complexities after performing the non-uniform rectangular partition of image. Experiments with some standard images is done and the results proved that the proposed method is valid, feasible and has a better reconstruction quality and compression rate in the same condition by comparing with those in the standard JPEG.

Keywords:

JPEG; DCT; Adaptive Quantization Table; Non-uniform Rectangular Partition

44.求解多極值優化問題的自適應精英種群遺傳算法

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會議/刊物名稱：

應用軟科學計算，第 11 卷，第 2 期，pp.2017-2034，2011 年 3 月，SCI-E 檢索

內容簡介：

本文提出一種求解多極值優化問題的自適應精英種群遺傳算法，這一方法能夠自適應地根據多極值優化問題的需要調整種群的大小，使得種群中個體並行地搜索不同的最優值，而且每一個個體都是其最優值吸引域裏的當前最優的精英個體。當優化問題的多個極值全部是有價值的最優解時，自適應精英制遺傳算法可以迅速而準確地搜索到問題的全部最優解。相關的數值試驗證明自適應精英制遺傳算法在效率和解的質量上都顯著的優於已有的多極值演化算法。

關鍵詞：

遺傳算法、多極值優化問題、精英種群

44.Genetic Algorithm with Adaptive Elitist-Population Strategies for Multimodal Function Optimization

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Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

Applied Soft Computing, Volume 11, Issue 2, pp.2017-2034, Mar 2011, SCI-E indexed

Abstract:

This paper introduces a new technique called adaptive elitist-population search method. This technique allows unimodal function optimization methods to be extended to efficiently explore multiple optima of multimodal problems. It is based on the concept of adaptively adjusting the population size according to the individuals' dissimilarity and a novel direction dependent elitist genetic operators. Incorporation of the new multimodal technique in any known evolutionary algorithm leads to a multimodal version of the algorithm. As a case study, we have integrated the new technique into Genetic Algorithms (GAs), yielding an Adaptive Elitist-population based Genetic Algorithm (AEGA). AEGA has been shown to be very efficient and effective in finding multiple solutions of complicated benchmark and real-world multimodal optimization problems. We demonstrate this by applying it to a set of test problems, including rough and stepwise multimodal functions. Empirical results are also compared with other multimodal evolutionary algorithms from the literature, showing that AEGA generally outperforms existing approaches.

Keywords:

Genetic algorithms, Multimodal optimization, Elitist strategy

45.一種平面量化整數規劃問題的多項式時間算法

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會議/刊物名稱：

2011 第六屆智能系統與知識工程國際會議(ISKE 2011)，pp.201-211，2011 年 12 月，中國上海，EI 檢索，會議文章

內容簡介：

此論文是關於設計和分析一個多項式時間算法， 這個算法是用來解決一類平面量化整數規劃方面的懸而未決問題的，這個問題的多項式時間的解決方法是以前沒有的。 因爲其他三類平面量化整數規劃問題是已知能在多項式時間內解決的， 我們也一併完成了平面量化整數規劃問題是可以在多項式時間內解決的證明。 一項此論文的實際應用意義在於，這類被解決的問題是一種重要的調度問題的模型。 這個算法利用了平面量化整數規劃問題的解空間是可以被水平的分割爲多個梯形的， 而每個梯形能否有解可以被高效的確認。 我們提供兩種確認梯形求解的方法。 第一種方法是基於有三個變量的整數規劃； 另一種方法是基於在一個凸多邊形裏的晶格結點的計數。 此論文比較了這兩個方法的各種特點。

關鍵詞：

量化的整數規劃、整數規劃、優化組合、多項式時間、算法、調度、晶格結點計數

45.A polynomial-time algorithm for the planar quantified integer programming problem

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Name of Conference/Journal:

Advances in Intelligent and Soft Computing, Knowledge Engineering and Management: Proceedings of the Sixth International Conference on Intelligent Systems and Knowledge Engineering (ISKE2011), pp.201-211, Dec 2011, Shanghai, China, EI indexed, conference article

Abstract:

This paper is concerned with the design and analysis of a polynomial-time algorithm for an open problem in Planar Quantified Integer Programming (PQIP), whose polynomial-time solution is previously unknown. Since the other three classes of PQIP are known to be in PTIME, we also accomplish the proof that PQIP is in PTIME. Among its practical implications, this problem is a model for an important kind of scheduling. A challenge to solve this problem is that using quantifier elimination is not a valid approach. This algorithm exploits the fact that a PQIP can be horizontally partitioned into slices and that the feasibility of each slice can be checked efficiently. We present two different solutions to implement the subroutine CheckSlice: The first one uses IP(3), i.e., Integer Programming with at most three non-zero variables per constraint; the other is based on counting lattice points in a convex polygon. We compare the features of these two solutions.

Keywords:

Quantified Integer Programming; Integer Programming; Combinatorial Optimization; Polynomial-time; Algorithm; Scheduling; Counting Lattice Points

46.變精度粗糙集模型中約簡的一個重要性質

曾祥財、趙素雲、周彩麗

澳門科技大學　資訊科技學院

會議/刊物名稱：

國際機器學習與控制會議論文集，ICMLC 2011，pp.160-165，2011 年 7 月 10-13 日，中國廣西桂林，EI 檢索，會議文章

內容簡介：

本文採用嚴格的數學推理方法，發現了變精度粗糙集模型中閾值與約簡之間的關係。即約簡隨著閾值的單調增加呈現嵌套的拓撲結構。採用嵌套約簡結構，我們設計了一個快速發現不同約簡的算法。這裡不同的約簡是指在不同閾值上獲得的約簡。

關鍵詞：

模糊粗糙集、屬性約簡、嵌套約簡

46.A property of reductions in fuzzy variable precision rough set model

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Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

Proceedings - International Conference on Machine Learning and Cybernetics, ICMLC 2011, pp.160-165, July 10, 2011 - July 13, 2011, Guilin, Guangxi, China, EI indexed, conference article

Abstract:

In this paper, we use strict mathematics reasoning to discover the relation between the threshold and reduction in Fuzzy Variable Precision Rough Sets (FVPRS), i.e., the reductions act as a nested structure with the monotonously increasing threshold. By using the nested structure of reductions, we could design algorithms to quickly find different reductions when a reduction is required. Here different means the reductions obtained using different thresholds.

Keywords:

IVFRS; Granular representation; Approximation operators

47.使用定向天線的無線網絡安全性研究

戴弘寧、李東、黃智榮

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會議/刊物名稱：

IEEE 局域計算機網絡國際會議論文集，LCN 2011，pp.191-194，2011 年 10 月 4-7 日，德國波恩，EI 檢索，會議文章

內容簡介：

有相當多的研究關注與將定向天線用於無線網絡。它們中許多都是研究使用定向天線帶來的網絡容量的提高，而其他一些研究關注與定向天線的媒體訪問層協議的設計。我們發現很少有研究關注與定向天線用於無線網絡從而帶來安全性的提高。在這篇論文中，我們探究了：將定向天線用於單跳無線網絡與多跳無線網絡能夠提高安全性。特別地，我們發現將定向天線用於無線網絡能夠減少單跳傳輸與多跳傳輸的偷聽率，從而提高傳輸的安全。

關鍵詞：

定向天線、無線網絡、安全性

47.Exploring security improvement of wireless networks with directional antennas

Dai, HN (Dai Hong-Ning); Li, D (Li Dong); Wong, RCW (Wong Raymond Chi-Wing)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

Proceedings of the 36th Annual IEEE Conference on Local Computer Networks, LCN 2011, pp.191-194, October 4, 2011 - October 7, 2011, Bonn, Germany, EI indexed, conference article

Abstract:

There are a number of studies on using directional antennas in wireless networks. Many of them concentrate on analyzing the theoretical capacity improvement by using directional antennas. Other studies focus on designing proper Medium Access Control (MAC) protocols to improve the practical network throughput. There are few works on the security improvement using directional antennas. In this paper, we explore the benefits of directional antennas in security improvements on both single-hop and multi-hop wireless networks. In particular, we found that using directional antennas in wireless networks can significantly reduce the eavesdropping probabilities of both single-hop transmissions as well as multi-hop transmissions and consequently improve the network security.

Keywords:

Directional Antennas, Wireless Networks, Security

48.在多傳輸接無線網絡中的鏈路調度

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澳門科技大學　資訊科技學院

會議/刊物名稱：

IEEE 局域計算機網絡國際會議論文集，LCN 2011，pp.199-202，2011 年 10 月 4-7 日，德國波恩，EI 檢索，會議文章

內容簡介：

這篇論文研究了在多傳輸接收無線網絡中的鏈路調度問題，該問題可以滿足在最短時間內滿足交通流量要求。多傳輸接收無線網絡是一種新型網絡，在這種網絡中每個節點都能同時與其它節點同時傳輸或者同時接收。這種多傳輸接收特性可以使用多個定向天線或多個信道來實現。然而在能夠確保多傳輸接收的時候，我們首先需要能夠滿足鏈路調度。在這篇論文中我們用線性規劃去解決這種多傳輸接收網絡的鏈路調度問題。然而我們發現這種問題是 NP 難的問題，這是因爲我們需要在圖中找到最大的獨立集。基於這一 NP 難題，我們出了兩種算法：最高權重優先算法與最大度數優先算法。仿真實驗表明這兩種算法在運行時間與優化性上都能獲得較高的性能。

關鍵詞：

多傳輸接收性、無線網絡、NP 難題、優化性

48.Link scheduling in multi-transmit-receive wireless networks

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Name of Conference/Journal:

Proceedings of the 36th Annual IEEE Conference on Local Computer Networks, LCN 2011, pp.199-202, October 4, 2011 - October 7, 2011, Bonn, Germany, EI indexed, conference article

Abstract:

This paper investigates the problem of link scheduling to meet traffic demands with minimum airtime in a multi-transmit-receive (MTR) wireless network. MTR networks are a new class of networks, in which each node can simultaneously transmit to a number of other nodes, or simultaneously receive from a number of other nodes. The MTR capability can be enabled by the use of multiple directional antennas or multiple channels. Potentially, MTR can boost the network capacity significantly. However, link scheduling that makes full use of the MTR capability must be in place before this can happen. We show that optimal link scheduling can be formulated as a linear program (LP). However, the problem is NP-hard because we need to find all the maximal independent sets in a graph first. We propose two computationally efficient algorithms, called Heavy-Weight-First (HWF) and Max-Degree-First (MDF) to solve this problem. Simulation results show that both HWF and MDF can achieve superior performance in terms of runtime and optimality.

Keywords:

Multi-Transmit-Receive Capability, Wireless Networks, NP-hardness, Optimality

49.V 正交基網絡

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會議/刊物名稱：

計算機科學，第 38 卷，第 10 期，pp.211-214，2011 年 10 月，中文核心期刊要目總覽(2008)

內容簡介：

爲了改進 BP 網絡的收斂速度與連續正交基網絡無法逼近非連續函數的問題，構造了一類基於 V 正交基的前饋神經網絡(簡稱 V 正交基網絡) ，並研究其收斂性條件與僞逆規則。由於 V 系統是 L^2 ([0,1])上的一類完備的正交函數系，且 Fourier-V 級數有較快的收斂速度，因此，V 正交基網絡有較快的收斂速度，且能有效地逼近一類強間斷的一元函數。最後，通過仿真實驗證明，V 正交基網絡的收斂速度明顯優於傳統的 BP 網絡、小波網絡與 Legendre 網絡，特別是逼近一類間斷點在二進制有理數處的函數時，其優勢更加明顯。

關鍵詞：

V 系統、BP 神經網絡、小波神經網絡、Legendre 網絡、函數逼近

49.V Orthonormal Basis Neural Network

Xiong, GQ (Xiong Gang-qiang); Qi, DX (Qi Dong-xu)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

Computer Science, Volume 38, Issue 10, pp.211-214, OCT 2011, A Guide to the Core Journal of China (PKU)

Abstract:

In order to solve the problem that the convergence rate of BP network is not fast, and the neural networks with continuous orthogonal basis cannot approximate discontinuous functions, this paper constructed a class of feed-forward neural networks with V orthonormal basis (referred to as V orthogonal network), and investigated its convergence condition and pseudo-inverse rule. For V system is a class of complete orthonormal systems in $L^2([0, 1])$, and the convergence rate of Fourier-V series is comparatively fast, the convergence rate of V orthogonal network is also fast, and it can effectively approximate a class of discontinuous functions of one variable. The simulation results also show that the convergence rate of V orthogonal network is obviously faster than that of BP network, wavelet network and Legendre network if using V orthogonal network to approximate the functions whose breakpoints only appear at dyadic rational, its performance of function approximation becomes much better.

Keywords:

V system, BP network, Wavelet network, Legendre network, Function approximation

50.高次 Walsh 系與高次 Haar 系

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澳門科技大學　資訊科技學院

會議/刊物名稱：

寧夏大學學報（自然科學版），第 32 卷，第 2 期，pp.109-115，2011 年 6 月，中文核心期刊要目總覽(2008)

內容簡介：

高次 Walsh 系的基函數表達式非常復雜，計算困難。爲了簡化計算，通過建立高次 Walsh 系與高次 Haar 系之間的顯式公式，且由於高次 Haar 系是一類 $L^2([0,1])$上的分段多項式多小波，從而獲得由多項式多小波的級聯算法計算高次 Haar 變換與高次 Walsh 變換的方案。同時，推導出計算高次 Walsh 變換與高次 Walsh 基函數值的顯式公式，爲高次 Walsh 變換與高次 Haar 變換的應用提供了一套計算方法。

關鍵詞：

高次 Walsh 系、高次 Haar 系、分段多項式正交系、多小波、級聯算法

50.Walsh System with Higher Degree and Haar System with Higher Degree

Xiong, GQ (Xiong Gangqiang); Qi, DW (Qi Dongxu)

Faculty of Information Technology, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Ningxia University (Natural Science Edition), Volume 32, Issue 2, pp.109-115, JUN 2011, A Guide to the Core Journal of China (PKU)

Abstract:

The basis expressions with Walsh system with higher degree are very complex, and its calculation is very difficult. In order to simplify its calculation, the explicit formula for the relation between Walsh system with higher degree and Haar system with higher degree is established. Because Haar system with higher degree is a class of piecewise polynomial muhiwavelets in $L^2([0, 1])$, the cascade algorithms of Walsh transformation with higher degree and Haar transformation with higher degree are obtained by using the muhiwavelet decomposition of piecewise polynomials. At the end, the explicit formulae for Walsh transformation with higher degree and basis value of Walsh system with higher degree are investigated. As the result, two calculations for Walsh transformation with higher degree and Haar transformation with higher degree are given.

Keywords:

Walsh system with higher degree; Haar system with higher degree; Orthonormal piecewise polynomials system; Multiwavelets; Cascade algorithm

51.主管輔導對個體學習和職業成果的影響：自我效能感的雙重作用

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會議/刊物名稱：

Journal of Vocational Behavior，第 78 卷，第 2 期，2011 年 4 月，pp.264-273，SCI-E 檢索

內容簡介：

這份研究探討主管輔導與員工績效關係的內在機制。數據來自四家中國製造業企業 226 份雇員-主管配對問卷。

關鍵詞：

主管輔導

51.The Impact of Supervisory Mentoring on Personal Learning and Career Outcomes: The Dual Moderating Effect of Self-Efficacy

Pan, W (Pan Wen); Sun, LY (Sun, Li-Yun); Chow, IHS (Chow Irene Hau-Siu)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Vocational Behavior, Volume 78, Issue 2, April 2011, pp.264-273, SCI-E indexed

Abstract:

The study examines the mechanism through which supervisory mentoring affect employee performance. Data were collected from 226 employees and their supervisors in four manufacturing companies in China

Keywords:

Supervisory mentoring

52.授權與服務導向的公民行爲的影響

Jiang, Y.、孫立雲、Law

澳門科技大學　行政與管理學院

會議/刊物名稱：

管理學國際期刊，2011 年 9 月

內容簡介：

這項研究探討的是授權對服務導向的公民行爲影響的機制。數據來自中國廣東四家服務企業 232 份 232 員工-直屬主管配對問卷。

關鍵詞：

服務導向的組織公民行爲

52.Job Satisfaction and Organization Structure as Moderators of the Effects of Empowerment on Service-Oriented Organizational Citizenship Behavior: A Self-Consistency and Social Exchange Perspective. International Journal of Management

Jiang, Y (Jiang, Y.); Sun, LY (Sun Li-Yun); Law, K (Law, K.)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

International Journal of Management, Sep 2011

Abstract:

The study examines the mechanism through which empowerment affects service-oriented OCB. Data were collected 232 employees and their immediate supervisors working in four service-sector organizations in Guangdong, China.

Keywords:

Service-Oriented Organizational Citizenship Behavior

53.差異化戰略、高績效人力資源實踐與企業績效：員工承諾的中介作用

孫立雲、潘雯

澳門科技大學　行政與管理學院

會議/刊物名稱：

人力資源國際期刊，第 22 卷，第 15 期，pp.3068-3079，2011 年，SSCI 檢索

內容簡介：

這項研究分析了高績效人力資源實踐對企業績效的影響機制。數據來自中國東部某省 81 加服務型企業。

關鍵詞：

高績效人力資源實踐

53.Differentiation Strategy, High-Performance Human Resource Practices, and Firm Performance: Moderation by Employee Commitment

Sun, LY (Sun, Li-Yun); Pan, W (Pan Wen)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

International Journal of Human Resource Management, Volume 22, Issue 15, pp.3068-3079, 2011, SSCI indexed

Abstract:

The study explores the mechanism through which high-performance human resource practices affect firm performance. Data were collected from 81 service firms in an eastern province of China.

Keywords:

High performance human resource practices

54.信息不確定情況下的恒生指數和恒生指數基金的檢驗

鄭勇、鄒文篪、董靜

澳門科技大學　行政與管理學院

會議/刊物名稱：

Proceedings of The Fifth International Conference on Management Science and Engineering Management，2011 年 11 月，會議文章

內容簡介：

本文檢驗了從 2005 年 1 月至 2010 年 10 月在不確定性信息假設前提下的恒生指數和其交易記錄以及指數基金。兩種方法是基於不確定信息情況下經濟的重要性。通過研究結果發現實際觀察獲得的數據不能轉化成經濟收入的數據。而且在恒生指數和恒生指數基金的在 5 天內交易日回報的差異性程度呈現下降。所以我們的結論是，金融市場中體現的是一種短期效率導向。

關鍵詞：

不確定信息假、市場效率、新興市場

54.Examine the uncertain information hypothesis on Hang Seng Index and HS HSI ETF

Zheng, Y (Zheng Yong); Zou, WC (Zou Wenchi); Dong, J (Dong Jing)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Proceedings of The Fifth International Conference on Management Science and Engineering Management, Nov 2011, conference article

Abstract:

This paper examines the uncertain information hypothesis on one major index and its corresponding exchange-traded fund: the Hang Seng Index and HS HSI ETF in the pre-HS HSI ETF (01/87-12/04) and post-HS HSI ETF (01/2005-12/2010) periods. Two strategies are used to measure the economic significance of the uncertain information hypothesis. Overall, we present evidence confirming the uncertain information hypothesis in the post-HS HSI ETF period. However, we fail to convert the statistically significant gains observed into economic gains under a conservative approach. In addition, the degree of difference in the volatilities of the 5-day post-event returns (in both the Hang Seng and the HS HSI ETF) among the three subgroups diminishes in the post-HS HSI ETF period. Hence, we conclude that the market is in fact short-term efficient in a more realistic setting.

Keywords:

Uncertain information hypothesis, Market efficiency, Emerging market

55.新員工主動型人格對其調試結果產生的影響：信息尋求的中介作用

鄒文篪、鄭勇、朱景山

澳門科技大學　行政與管理學院

會議/刊物名稱：

2011 International Conference on Risk and Engineering Management (REM)，pp.294–300，2011 年 8 月，會議文章

內容簡介：

基於社會化研究中的互動視角，本研究將新員工社會化過程中的主動信息尋求行爲作爲中介變量來解釋新員工的主動型人格特點對其調試產生的影響。本研究的樣本來自於中國華南地區的五星級酒店的新員工和他們的主管。研究結果表明信息尋行爲發揮部分中介作用。

關鍵詞：

主動型人格、信息尋求、新員工、調試

55.Information Seeking as a Mediator Between Proactive Personality and Adjustment

Zou, WC (Zou Wenchi); Zheng, Y (Zheng Yong); Zhu, JS (Zhu Jingshan)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

2011 International Conference on Risk and Engineering Management (REM), pp.294–300, Aug 2011, conference article

Abstract:

Based on the perspective of interactionist, we examine information seeking as a mediator between newcomer's proactive personality and adjustment. Data were collected from five-star hotels of south China. The results reveal that information seeking partially mediated the relationship between proactive personality, role clarity and social integration.

Keywords:

Proactive personality, Information seeking, Newcomer, Adjustment

56.變革型領導對酒店新員工組織社會化影響分析——以澳門、珠海高星級酒店爲例

鄭勇、鄒文篪

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會議/刊物名稱：

旅遊學刊，第 26 卷，第 9 期，pp.79-84，2011 年，中文核心期刊要目總覽(2008)，CSSCI 檢索

內容簡介：

文章分析酒店新員工的組織社會化過程中變革型領導對新員工組織社會化結果產生的影響，並探索了產生此種影響的內在機制；採用配對樣本的方式對 12 家澳門和珠海高星級酒店的管理者和新員工進行問卷調查。研究結果顯示，變革型領導會對新員工的信息尋求行爲產生積極的促進作用，並有效地提升新員工組織社會化的質量；信息尋求行爲在變革型領導和新員工社會化結果之間起完全中介的作用。

關鍵詞：

變革型領導、新員工、信息尋求

56.An Analysis of the Impact of Transformation-type Leadership on the New Employees' Organizational Socialization in Hotels -- A Case of Top-notch Hotels in Macau and Zhuhai

Zheng, Y (Zheng Yong); Zou, WC (Zou Wen-Chi)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Tourism Tribune, Volume 26, Issue 9, pp.79-84, 2011, A Guide to the Core Journal of China (PKU), CSSCI indexed

Abstract:

The paper analyzes the impact of transformation-type leadership on the new employees in the process of their organizational socialization and tries to explore the inherent machanism that leads to such influences. We carry on questionnaire survey among managers and new employees in high star-rated hotels in Macau and Zhuhai by adopting the method of dyadic samples. The study results indicate that transformation-type leadership will play active and promoting role in the new employees' information-seeking acts and effectively improve the quality of their organizational socialization. The information seeking acts play a fully mediating role between transformation type leadership and the outcome of new employees' socialization.

Keywords:

Transformation-type leadership; New employee; Information-seeking

57.一個實時庫存管理計劃系統以解決小批次生產原材料補助之問題

潘德晉、蔡經倫、陳東燊、何道森、古納塞卡倫、劉湛華、鄒嘉豪

澳門科技大學　行政與管理學院

會議/刊物名稱：

專家系統的運用，第 38 卷，第 7 期，pp.8524-8537，2011 年 7 月，SCI-E 檢索，EI 檢索

內容簡介：

一般工廠均擁有多個工作站與及各條不同之生產線，由於大部份製造商採用 just-in-time (JIT) 及 make-to-order 之製造模式，小批次生產之原材料必須在很短之時間內傳送到相關之生產線上。本研究旨在發明一個實時庫存管理計劃系統(R-WOPS)，以解決小批次生產原材料補助之問題。藉著無線射頻識別技術(RFID)之幫助，就能達到實時生產及製造情況之監測。另外，本系統同時採用模擬基因現算法去規劃出一個可行之小批次生產原材料補助方案。模擬測驗結果確認了此系統能有效地改善整體生產模式的運作。

關鍵詞：

庫存管理計劃系統、小批次生產、無線射頻識別技術、模擬基因現算法

57.A real-time warehouse operations planning system for small batch replenishment problems in production environment

T.C. Poon; K.L. Choy; F.T.S. Chan; G.T.S. Ho; A. Gunasekaran; H.C.W. Lau; H.K.H. Chow

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Name of Conference/Journal:

Expert systems with applications, Volume.38, Issue 7, pp.8524-8537, JUL 2011, SCI-E indexex, EI indexed

Abstract:

A factory consists of numerous production workstations, multiple production lines and many production floors. Due to the characteristics of just-in-time and make-to-order mode manufacturing, small batches of production materials are required for production lines within a short period of time in order to facilitate daily production operations. In this paper, a real-time warehouse operation planning system (R-WOPS) for solving small batch replenishment problems is described. Through using R-WOPS, real-time production and warehouse operations are monitored by radio frequency identification (RFID) technology, and a genetic algorithm (GA) technique is applied to formulate feasible small batch replenishment solutions. Simulation tests show that R-WOPS generates pick-up and delivery route plans for small batch replenishment orders very efficiently.

Keywords:

Real-time warehouse operations planning system; Small batch replenishment; Radio frequency identification (RFID) technology; Genetic algorithm (GA)

58.“固定收益證券”教學中的若干問題剖析

丁浩、宋峻嶺

澳門科技大學　行政與管理學院

會議/刊物名稱：

金融理論與教學，2011 年第 2 期，pp.67-69

內容簡介：

“固定收益證券”是財務管理和金融學專業的核心課程之一，然而由於該課程涉及的概念較多，學生在學習時雖能記住一些概念和公式，但是在理解和解釋方面卻存在不少的困惑。本文對該課程中“當前收益率、到期收益率和票面利率的關係”、“久期的解釋”、“息票效應與利率期限結構曲線”三個突出問題做出剖析和探討，以期爲該課程的教與學提供有益的參考。

關鍵詞：

固定收益證券、到期收益率、久期、息票效應、利率期限結構

58.Analysis of Several Questions in Fixed Income Securities Teaching

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Name of Conference/Journal:

Finance Theory and Teaching, 2011 (2), pp.67-69

Abstract:

Fixed Income Securities is one of the core courses in the departments of financial management and finance. However, owing to the complicated concepts and formulas, many students are confused in understanding their interpretation and significance. In view of this, in order to provide a useful reference in teaching and learning for this course, we choose to analyze three outstanding problems: the relationship of current yield, yield to maturity and coupon rate; the interpretation of duration; the understanding of coupon effect and term structure of interest rates.

Keywords:

Fixed Income Securities, Yield to Maturity, Duration, Coupon effect, Term structure of interest rates

59.基於非對稱 GARCH-VaR 模型的中國利率風險度量—對 Shibor 的實證

丁浩、龐川

澳門科技大學　行政與管理學院

會議/刊物名稱：

澳門科技大學學報，第 5 卷，第 1 期，2011 年 6 月，pp.58-67

內容簡介：

利率風險是商業銀行面臨的最重要的市場風險，由於中國仍然對存貨款利率管制，選擇市場化程度最高的同業拆借市場研究利率風險。通過建立正態、t 和 GED 分佈下反映信息非對稱性的 TARCH、EGARCH 和 PARCH 模型度量利率的條件波動率，進而建立條件 VaR 模型以度量因利率風險而導致的資產損失大小，最後基於 Shibor 數據對中國利率的總體風險情況進行了實證研究。

關鍵詞：

利率風險、VaR、GARCH、Shibor

59.Estimating China's Interest Rate Risk Based on Asymmetric GARCH-VaR Models: An Empirical Analysis of Shibor

Ding, H (Ding Hao); Pang, C (Pang Chuan)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Macau University of Science and Technology, Vol.5, No.1, Jun 2011, pp.58-67

Abstract:

Interest rate risk is the most significant market risk for commercial banks. As the deposit and lending rates are stilled controlled in China, we choose the interbank lending market which is highly marketized to study the interest rate risk. The GARCH family models, which reflect the asymmetric information under normal, t and GED distribution, are built to describe the conditional volatility of interest rate. Furthermore, the conditional Value-at-Risk model is built to measure the expected loss caused by interest rate risk. Finally, an empirical analysis is given with the data from Shibor system.

Keywords:

Interest Rate Risk, Value at Risk, GARCH, Shanghai Interbank Offered Rate

60.基於多項式樣條函數的我國零息票收益率曲線構造

丁浩、劉若斯、徐曉敏

澳門科技大學　行政與管理學院

會議/刊物名稱：

財經理論與實踐，第 32 卷，第 5 期，pp.20-25，2011 年，CSSCI 檢索

內容簡介：

零息票收益率曲線是利率期限結構理論分析的基礎，在金融估價和風險管理中發揮著重要作用。提出基於多項式樣條函數構造零息票收益率曲線的過程及改進方法：考慮國債採樣日位於付息日之間、年付息次數可變的情形，使分析更具一般性；針對多項式樣條函數擬合時回歸係數不顯著的問題，採取剔除不顯著變量的方法進行改進；討論比較了兩種樣條值確定方法在我國的適用性，並研究了模型的穩定性。選取上交所國債進行的實證研究表明，在現階段我國國債樣本數據較少、結構不甚合理的情況下，採用剔除不顯著變量的三段三次樣條函數可以較好地構造我國的零息票收益率曲線。

關鍵詞：

多項式樣條函數、零息票收益率曲線、利率期限結構

60.Zero-Coupon Bond Yield Curve in China Based on Polynomial Spline Functions

Ding, H (Ding Hao); Liu, RS (Liu Ruosi); Xu, XM (Xu Xiaomin)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

The Theory and Practice of Finance and Economics, Vol. 32, No.5, pp.20-25, 2011, CSSCI indexed

Abstract:

Zero-coupon bond's yield curve is the basis of term structure of interest rates. It plays an important role in financial pricing and risk management. Considering the frequency of interest payment and the situation of sampling date between interest payment dates, this paper gives the general process of constructing the zero-coupon bond's yield curve based on polynomial spline functions. In response to the problem that the regression coefficients are not significant, a model excluding not-significant variables is given. The applicability of the two methods to determine the spline knots is discussed as well as the stability of the model. Using the bond data from Shanghai Stock Exchange, the empirical analysis shows that the cubic spline model with three knots excluding not-significant variables is more accurate and closer to the reality in China.

Keywords:

Polynomial spline function, Zero-coupon bond's yield curve, Term structure of interest rates

61.關於中國網絡購物中的物流服務質量的實證研究

黃斐、賴嘉偉、王佳

澳門科技大學　行政與管理學院

會議/刊物名稱：

第十屆電子商務國際學術會議，2010 年 12 月，上海，會議文章

內容簡介：

研究著眼於在中國網購行爲中在物流服務質量方面的顧客期望和顧客體驗之間的落差，其中收集到了某網購網站中 153 位顧客的問卷反饋，並且運用結構方程來檢驗和推導主要的研究模型。研究結果顯示訂單狀態和訂單異常處理是物流服務提供商應該最優先處理的服務質量改善的關鍵領域。

關鍵詞：

網絡、物流服務質量、客戶期望、第三方物流

61.Am Empirical Study on the Logistics Service Quality of Online

Huang, F (Huang Fei); Lai, KW (Lai Ka-Wai); Wang, J (Wang Jia)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Proceedings of The 10th International Conference on Electronic Business, Dec 2010, Shanghai, conference article

Abstract:

This study aims to find out the differences between customer expectations and customer experiences on logistics service quality (LSQ) of online shopping in China. Data was collected from 153 respondents through an online shopping site. Structural equation modeling is used to examine the reliability and validity of the research model. This study indicates that order condition and order discrepancy handling are the most important LSQ areas that logistics service providers should address in order to improve their service quality as well as to strength their business development.

Keywords:

Online shopping, Logistics service quality, Customer expectation, Third-party logistics

62.談有效的博客營銷：概念，經驗和規則

黃斐

澳門科技大學　行政與管理學院

會議/刊物名稱：

商業時代，2011 年第 28 期，中文核心期刊要目總覽(2008)

內容簡介：

博客已經是因特網上不可回避的現象，而且博客在現代企業營銷創新中的應用價值已經在逐步展現。中國企業要想利用博客爲企業營銷服務，需要更完整地認識博客營銷這個應用創新。通過整合既有的文獻資料和企業案例，這裏的研究討論了博客和博客營銷的概念，企業博客營銷的主要動因，基於企業博客的應用發展的四個階段，概括整理出相應的通用規則和實踐問題，幫助中國企業理解創造有效的博客營銷的全過程。

關鍵詞：

博客營銷、互動營銷、互聯網營銷

62.Creating Effective Blog Marketing for Business: Concepts, Lessons and Rules

Huang, F (Huang Fei)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Commercial Times, 2011 (28), A Guide to the Core Journals of China (PKU)

Abstract:

The blog has become some un-avoidable phenomena in the Internet, and the past successful stories revealed the potential of use of blogs in business marketing. Chinese firms need make broad and in-depth study of the blog marketing innovation, in order to exploit the commercial value of blogs for business marketing. Integrating the legacy literature and business cases, the study discussed the concepts of blog and blog marketing, and the major business drivers for blog marketing. Furthermore, the study summarized general rules and practical activities in correspondence to four-stage of developing business blogs, which can help Chinese firms understand the complete process of creating effective blog marketing.

Keywords:

Blog marketing, Interactive marketing, Internet marketing

63.中國網絡購物中的物流服務瓶頸

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會議/刊物名稱：

中國物流與採購，2011 年第 21 期，pp.54-55，中文核心期刊要目總覽(2008)

內容簡介：

網購購物活動體現出的“鼠標＋水泥”的商業模式，仰賴於業務環節中各個部分的協調一致的發展支持。研究通過分析物流在中國網購業務發展中的瓶頸問題，能够對於中國當前網購活動中的物流配送環節挖掘針對性的發現，幫助中國物流服務企業審視以顧客爲中心的業務模式。

關鍵詞：

網絡購物、第三方物流、服務質量

63.Logistics Service “Bottleneck” within Online Shopping in China

Huang, F (Huang Fei)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

China Logistics ＆ Purchasing, 2011 (21), pp.54-55, A Guide to the Core Journals of China (PKU)

Abstract:

Online shopping activities reflect the innovative “Click and Mortar” business model, which greatly rely on the appropriate maturity of all key supporting service parts. The study will conduct some empirical study of the e-logistics problem within online shopping business in China, in which will develop and analyze one specific framework of assessing the e-logistics service quality from the customer-centric perspective. The study is expected to deal with those concrete matter related in e-logistics problem within online shopping business in China by integrating the existing literatures and the empirical study. The study will produce some right and accurate business findings, in order to help the Chinese logistics service providers promote the customer-centric business, and well exploit the growing opportunity within the online shopping market in China.

Keywords:

Online shopping, Third party logistics provider, Service quality

64.中國網購中物流服務質量評價的實證研究

黃斐、王佳

澳門科技大學　行政與管理學院

會議/刊物名稱：

技術經濟與管理研究，2011 年第 10 期，中文核心期刊要目總覽(2008)

內容簡介：

中國市場日益興盛的網絡購物，凸顯出電子商務活動中鼠標加水泥的應用特徵，其表現仰賴業務環節中各個部分的協調一致的發展支持，而物流環節在其中扮演著關鍵作用。基於傳統的服務質量概念和物流服務質量評價維度，通過實證研究來進一步理解物流在中國網購業務發展中的短板問題，在顧客視角下討論中國網購活動中物流服務質量的相關量表維度的表現，進行符合中國經驗的物流服務質量評價的維度調整，並且進一步地通過結構方程模型來探索其中各主要因素的相互關係，運用結構方程分析修正所得到的概念模型。最後，聯繫既有文獻基礎和實證分析的結論，能够對於中國當前網購活動中的物流配送環節挖掘出具有實務意義和針對性的發現，尤其理解包裝環節，人員的溝通質量，和誤差處理在實證結論的顯著意義，幫助中國物流服務企業發展以顧客爲中心的業務模式。

關鍵詞：

網絡購物、第三方物流、服務質量

64.The Empirical Study of Logistics Service Quality Evaluation within Online Shopping in China

Huang, F (Huang Fei); Wang, J (Wang Jia)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Technoeconomics & Management Research, 2011 (10), A Guide to the Core Journals of China (PKU)

Abstract:

The booming growth of online shopping business in China represents the Click-and-Motor feature in electronic commerce activities, which greatly rely on the appropriate maturity of all key supporting service parts, and the logistics part is playing the key role within the complete chain. Integrating the traditional theories of Service Quality and Logistics Service Quality Measures, the study will conduct some empirical manner to investigate the e-logistics problem within online shopping business in China. From the customer-centric perspective, the study can make some conclusions derived from measuring logistics exercises of online shopping activities, and then develop and analyze one specific framework of assessing the e-logistics service quality based on the practice in China Mainland's Market. The study is expected to deal with those concrete matter related in e-logistics problem within online shopping business in China by integrating the existing literatures and the empirical study. The study will produce some right and accurate business findings, especially the outstanding impacts of the product package, the customer communication quality and the error handling, which will help the Chinese logistics service providers to enhance the customer-centric service business.

Keywords:

Online shopping, Third party logistics provider, Service quality

65.建設靈活性/彈性化政府：新公共管理與香港公務員制度改革

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澳門科技大學　行政與管理學院

會議/刊物名稱：

政府管理創新：實踐與理論”國際學術研討會，澳門理工學院，會議文章

內容簡介：

彼得斯(B.Guy Peters) 在《政府未來的治理模式》一書中提出靈活性/彈性化政府模式，主張聘用臨時性和兼職性員工，應打破組織永久性以提高政府的應變能力及整體效率、減低政府的成本，避免組織的僵化並達致創新。這些都代表新公共管理對政府人事管理的一套特殊主張。毫無疑問，1999 年 3 月香港政府發表的《公務員體制改革諮詢文件》及伴隨其後所落實的改革措施都充滿管理主義色彩。改革的靈感完全來自新公共管理，所以近期的香港公務員制度改革可以看作是政府對世界新公共管理改革運動的回應與追隨。

本文首先分析是次公務員體制改革的背景，並根據上述文件從四大範圍，即 1.入職與離職的安排；2.薪酬及附帶福利；3.紀律處分程序；4.表現評核制度、專業培訓和個人發展；詳細討論其內容及已實行的改革措施，最後對改革成敗作出評價。

關鍵詞：

新公共管理、靈活性政府、公務員制度改革

65.Building a Flexible Government: New Public Management and Civil Service Reform in Hong Kong

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Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

International Conference on "Government Management Innovation: Practice and Theory", Macao Polytechnic Institute, conference article

Abstract:

B. Guy Peters in his book, The Future of Governing: Four Emerging Models, has suggested a flexible government model which contends that government should employ temporary and part-time staff and break down the permanence of public organizations to raise efficiency, cut costs and enhance the flexibility in face of change, so as to be innovative. These ideas represent the particular views of New Public Management in public personnel administration. It is no doubt that the "Consultative Document on Civil Service Reform" issued by the Hong Kong Government in March, 1999, and the ensuing reforms are imbued with managerialism. They are inspired by and follow the worldwide New Public Management movement.

This paper first introduces the background of the civil service reform and gives a detailed account on the content of these reforms in four areas given in the above-mentioned document: 1.recruitment and retirement; 2.salary and fringe benefits; 3.disciplinary procedures; and 4.performance appraisal and training. A brief comment on the reforms is given at the end of the paper.

Keywords:

New Public Management, Flexible government, Civil service reform

66.正式控制與信任在中國營銷渠道關係中的作用：一項基於情境的分析

楊志林、周晨、姜凌

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會議/刊物名稱：

Industrial Marketing Management，第 40 卷，第 1 期，pp.86-96，2011 年 1 月，SSCI 檢索

內容簡介：

正式控制與信任是保證商業交易正常進行的兩類典型手段，但這兩類機制如何發揮作用一直未清晰。一些相關研究認爲正式控制與信任可以同時以保證交易的完成，而另一些研究則認爲兩類機制爲相互替代的關係。本次研究應用社會嵌入理論，對强關係與弱關係進行區別。研究以中國營銷渠道爲實證基礎，研究顯示在強關係與弱關係的不同情境下，正式控制與信任對公司間商業關係產生不同結果。且僅在弱關係背景下，正式控制與信任間存在互補效用。基於研究發現，提出針對中國市場背景下的理論與管理啓示。

關鍵詞：

信任、正式控制、機會主義、治理機制

66.When do formal control and trust matter? A context-based analysis of the effects on marketing channel relationships in China

Yang, ZL (Yang Zhi-Lin); Zhou, C (Zhou Chen); Jiang, L (Jiang Ling)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Industrial Marketing Management, Volume 40, Issue 1, January 2011, pp.86-96, SSCI indexed

Abstract:

Formal control and trust are two typical governance mechanisms employed to safeguard business transactions. Yet the effectiveness of each mechanism for firm relationship outcomes remains unclear. Some relevant literature suggests that formal control and trust simultaneously can help secure transactions, whereas other research argues the two control mechanisms can substitute for each other. This study applies social embeddedness theory and differentiates strong tie from weak tie relationships. In so doing, it reveals the role of strong versus weak social ties in leading to parallel conclusions about the relationship between formal control and trust and their effects on relationship outcomes. On the basis of empirical tests in a Chinese marketing channels context, this study finds that the joint effects of formal control and trust on governing transactions depends on the relational tie that the focal partners share. Specifically, formal control and trust complement each other only in weak tie relations. On the basis of this new perspective, the authors offer theoretical and managerial implications for managing interfirm governance mechanisms in transitional economies such as China.

Keywords:

Trust, Formal control, Opportunism, Governance mechanism

67.網上購物便利性的消費者感知：一個初步的定性研究

姜凌、姜楠、劉世雄

澳門科技大學　行政與管理學院

會議/刊物名稱：

2011 2nd International Conference on Challenges in Environmental Science and Computer Engineering，CESCE 2011，pp.406-410，2011 年 12 月，中國海口市，EI 檢索，會議文章

內容簡介：

便利性是消費者網上購買行爲的一個主要動機。研究採用焦點小組訪談的定性研究方法，進行文本分析，識別出網絡購買情境下，消費者感知網上購買便利性的 6 個維度：進入的便利性，搜索的便利性，評價的便利性，交易的便利性，購買的便利性與購後服務的便利性。 研究進一步在焦點小組訪談結果的基礎上，提出了網絡購物提供商應如何提升消費者購買便利性的管理啓示。

關鍵詞：

網絡服務、便利性、網上購物、維度、內容分析

67.Consumer Perceptions of e-Service Convenience: An Exploratory Study

Jiang, L (Jiang Ling); Jiang, N (Jiang Nan); Liu, SX (Liu Shixiong)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

2011 2nd International Conference on Challenges in Environmental Science and Computer Engineering, CESCE 2011, pp.406-410, Dec 2011, Haikou, China, EI indexed, conference article

Abstract:

Convenience has been one of the principal motivation sunderlying customer inclinations to adopt online shopping.Utilizing in-depth focus group interviews with online consumers, this study identified six major service convenience dimensions – access, search, evaluation, transaction, possession, and postpurchase convenience – and their related major subdimensions in the context of e-retailing. In addition, managerial solutions and challenges in delivering high service convenience were uncovered by in-depth focus group interviews with company managers. Theoretical and managerial implications of the findings are further discussed.

Keywords:

E-Service, Convenience, Online shopping, Dimensions, Content Analysis

68.從教育政策及教育公平的角度分析澳門教育的發展

劉靜文、阮邦球

澳門科技大學　行政與管理學院

會議/刊物名稱：

CESHK Annual Conference 2011，2011 年 2 月 19 日，香港，會議文章

內容簡介：

澳門回歸祖國已經十年。回歸後，澳門特區政府積極參與教育事業，大幅增加對高等教育及非高等教育的資源投放，而澳門居民不再受困於社會經濟條件的限制，在教育機會和教育公平方面得到顯著的改善。本文先行疏理回歸後十年的澳門教育事業發展，再具體分析澳門特區在教育理念、政策以及措施的特點。

關鍵詞：

澳門、教育政策、教育公平

68.The Development of Educational Policies and Educational Opportunities in Macau

Lau, CMD (Lau Cheng-Man Diana); Yuen, PK (Yuen Pong-Kau)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

CESHK Annual Conference 2011, 19 Feb 2011, Hong Kong, conference article

Abstract:

The sovereignty of Macau has been returned to the People's Republic of China for ten years. After the political transition, the Macau Special Administrative Region Government has increased its effort and participation in the provision of both non-tertiary and tertiary education. Because of this the educational opportunities for Macau's people, regardless of their socio-economic status, have been increased. The purpose of this presentation is to review the philosophies, policies and actual activities that have been determined and exercised during the past ten years.

Keywords:

Macau, Educational Policy, Educational Opportunity

69.回顧澳門大學的預科化學教育

阮邦球、劉靜文

澳門科技大學　行政與管理學院

會議/刊物名稱：

化學教育，第 32 卷，第 10 期，pp.94-96，2011 年 10 月，中文核心期刊要目總覽(2008)

內容簡介：

澳門預科教育是中學教育和高等教育的橋梁，而化學是科學教育的中心學科。以澳門大學預科化學課程爲中心，梳理了預科化學教育的特點，以展望澳門化學教育的改革和發展。

關鍵詞：

澳門、大學預科、化學教育、預科教育

69.A Review of the Pre-University Chemical Education in Macau

Yuen, PK (Yuen Pong Kau); Lau, CMD (Lau Cheng Man Diana)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Chinese Journal of Chemical Education, Volume 32, Issue 10, pp.94-96, OCT 2011, A Guide to the Core Journal of China (PKU)

Abstract:

Pre-university education in Macau acts as a bridge that connects secondary education and higher education. Chemical education is at the core of science education. This paper uses the pre-university chemistry curriculum of University of Macau as a focus of study. It investigates and organizes the features of pre-university chemical education. It also projects the future reform and development of chemical education in Macau.

Keywords:

Macau, pre-university; Chemical education; Pre-university education

70.企業研發組織模式選擇——基於交易成本理論和資源基礎理論的實證檢驗

馬如飛

澳門科技大學 行政與管理學院

會議/刊物名稱：

科學學與科學技術管理，2011 年 1 期，pp.152-158，CSSCI 檢索，中文核心期刊要目總覽 (2008)

內容簡介：

本文綜合交易成本理論和資源基礎理論的基本觀點，利用 78 家高科技企業的問卷調查數據，分析了現代企業選擇不同研發組織模式的根本動因。研究結果表明，研發資源缺乏是企業進行研發合作的主要動機，而交易成本理論則有利於進一步解釋不同研發合作方式存在的原因。企業選擇不同的研發組織模式，是權衡資源互補所帶來的收益和機會主義所導致的交易成本的綜合結果。

關鍵詞：

研發、組織模式、交易成本、資源互補

70.OrganizationMode Choice in R&D:Empirical Study Based on Resource Based Theory and Transaction Cost Theory

Ma, RF (Ma Ru-Fei)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

SCIENCE OF SCIENCE AND MANAGEMENT OF S.&.T, 2011(1), pp.152-158, CSSCI indexed, A Guide to the Core Journal of China (PKU)

Abstract:

Integrating the transaction cost theory and resource based theory, this study examines the incentive of corporation choosing different organization mode in R&D. With a simple of 78 R&D organizations, I find absence of R&D resource is the most important motivation for firms to cooperate with others, and the transaction cost can explain why firms can select different cooperation mode. In fact, the organization mode in R&D is trade-off of profit of resource complementary and the transaction cost.

Keywords:

R&D, Organization Mode, Transaction Cost, Resource Complementary

71.動態研發競爭與合作：基於微分博弈的分析

馬如飛、王嘉

澳門科技大學　行政與管理學院

會議/刊物名稱：

科研管理，第 32 卷，第 5 期，pp.36-42，CSSCI 檢索，中文核心期刊要目總覽(2008)

內容簡介：

本文考慮了一個雙寡頭的微分博弈模型，其中兩家企業在技術溢出和技術更新的環境下從事研發活動，每家企業在研發階段進行研發競爭或合作，但在產出階段進行競爭。通過比較研發競爭和研發合作下的企業瞬時收益，本文分析了技術溢出和技術更新是如何影響企業研發戰略的。進一步，本文還討論了企業研發戰略的演化路徑。

關鍵詞：

研發戰略、微分博弈、技術溢出、技術更新

71.Dynamic R&D Competition and Cooperation: A Differential Game Approach

Ma, RF (Ma Ru-Fei); Wang, J (Wang Jia)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Science Research Management, Volume 32, Issue 5, pp.36-42, CSSCI indexed, A Guide to the Core Journal of China (PKU)

Abstract:

A duopolistic differential game model which two firms conduct R&D activity with technology spillover and technology update is considered. Each firm in the model competes or cooperates with each other in a R&D stage but compete in an output stage. How technology spillover and technology update affect firm's R&D strategy is studied by comparing transient profit between R&D competition with R&D cooperation, and how R&D strategy of firms changering over time is discussed.

Keywords:

R&D strategy, Differential game, Technology spillover technology update

72.工資、技術轉移與國際勞動力流動壁壘

宋雅楠

澳門科技大學　行政與管理學院

會議/刊物名稱：

商業經濟與管理，第 235 卷，第 5 期，2011 年 5 月，pp.65-70，CSSCI 檢索，中文核心期刊要目總覽(2008)

內容簡介：

國際勞動力流動是世界經濟發展的巨大動力，但受到各國針對外國勞動力流動政策壁壘影響，其對世界經濟的貢獻受到影響。本文利用收益函數和間接貿易效用函數，說明外國勞動力流入的工資、數量和技術轉移問題對東道國外國勞動力流動壁壘形成的影響，從而證明各國在設計外國勞動力政策時，主要以此三方面爲主要考核因素，保護東道國居民福利。

關鍵詞：

工資、技術轉移、國際勞動力流動壁壘

72.Wages, Technology Transfer and Barriers on International Labour Movements

Song, YN (SONG Ya-nan)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Business Economics, Vol.235, No.5, May 2011, pp.65-70, CSSCI indexed, A Guide to the Core Journal of China (PKU)

Abstract:

International labour movements are one of important driving forces in world economy. The contribution of international labour movements have been limited by the barriers established by various countries on the foreign labour movements. This paper used revenue fuctions and indirect trade utility fuctions and comparative static methods to discuss the logical relations between wages, foreign labour quantities, technology transfer and barriers on international labour movements, prooved the forming mechanism of barriers on international labour movements. And showed that host countries would take these three fafctos as key evaluating elements to form their barriers on international labour movements and protect the welfare of host country citizens.

Keywords:

Wages, Technology transfer, International labour movements barriers

73.人民幣匯率對亞洲貨幣影響研究——基於 HP 濾波分析

宋雅楠

澳門科技大學　行政與管理學院

會議/刊物名稱：

金融理論與實踐，2011(10)，pp.24-28，2011 年 10 月，中文核心期刊要目總覽(2008)

內容簡介：

人民幣推行國際化以來，在國際貨幣計價單位和價值儲藏職能安排上依然欠缺。本文在人民幣推行計價職能國際化的訴求下，結合中國對亞洲主要國家的經濟和貿易影響力不斷加強的現狀，通過 HP 濾波分析及 Granger 檢驗實證分析了人民幣對亞洲主要國家匯率產生的影響，發現人民幣對某些亞洲主要貨幣具有影響效應，並探討了該效應產生的原因，爲人民幣國際化提出了相關建議。

關鍵詞：

協整分析、HP 濾波分析、Granger 檢驗

73.The Influence of Renminbi on Asian Currencies: Based on HP Filter Analysis

Song, TN (Song Ya-Nan)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Financial Theory and Practice, 2011(10), pp.24-28, OCT 2011, A Guide to the Core Journal of China (PKU)

Abstract:

Since the internationalization of Renminbi, there are some deficiencies in the exchange medium and value storing functions of Renminbi. This paper used the HP filter analysis and Granger test to discuss the influence of Renminbi on the Asian currencies empirically,found that some of the Asian currencies have been affected by the RMB and also analyzeing the reason for these effects.

Keywords:

Exchange Rate, Cointegration Analysis, HP Filter Analysis, Granger Test

74.政府相關政策對房地產市場影響事件研究

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澳門科技大學　行政與管理學院

會議/刊物名稱：

澳門科技大學學報，第 4 卷，第 2 期，pp.37-46，2010 年 12 月

內容簡介：

本文運用事件研究法分析政府房地產相關政策和銀行利率調整對房屋銷售價格指數、土地交易價格指數和房屋租賃價格指數的影響。研究表明，政府房地產政策和銀行利率調整對房地產相關價格指數的影響效果有所不同：其中政府房地產政策對土地交易價格影響最爲顯著，對房屋租賃價格指數的影響最小；而銀行利率調整對房屋租賃價格指數的影響最顯著，對房屋銷售價格指數的影響最小。同時，政府房地產政策和銀行利率調整對我國東、中、西部地區房地產相關價格指數的影響程度也因地區而異。

關鍵詞：

房地產政策、利率調整、事件研究法、房屋銷售價格指數、土地交易價格指數、房屋租賃價格指數

74.An Event Study of the Effects of Government Relative Policies on the Chinese Real Estate Market

Wei, L (Wei Long); Song, Y (Song Yu); Liu, CL (Liu Chunlu)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Macau University of Science and Technology, Vol.4, No.2, pp.37-46, Dec 2010

Abstract:

This paper analyses the effects of real estate policies and interest rate adjustment on the housing index, land index and rent index using the event study approach. Empirical results show the impacts of real estate policies on all the real estate price indices are different from that of interest rate adjustment. The findings indicate government policies on real estate have a higher influence on the land index than that of the rent index. On the contrary, the interest rate adjustment impacts on the rent index significantly, while the rent index not. Simultaneously, the impacts of government real estate policies and interest rate adjustment on China's eastern, central and western regions' real estate price index vary from region to region.

Keywords:

Real Estate Policy, Interest Rate Adjustment, Event Study, House Price Index, Land Index, Rent Index

75.基於重力模型的中國建築材料出口與能源消耗研究

宋宇、魏龍、Liu, CL (Liu Chunlu)

澳門科技大學　行政與管理學院

會議/刊物名稱：

Key Engineering Materials - Materials, Mechatronics and Automation，pp.467-469，2011 年 1 月，EI 檢索，會議文章

內容簡介：

這篇論文使用重力模型研究中國建築材料出口與能源消耗間的關係。

關鍵詞：

建築材料、出口、能源消耗、重力模型

75.A Research on the Construction Material Export and Energy Consumptions using the Gravity Model

Song, Y (Song Yu); Wei, L (Wei Long); Liu, CL (Liu Chunlu)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Key Engineering Materials - Materials, Mechatronics and Automation, pp.467-469, Jan 2011, EI indexed, conference article

Abstract:

This paper applies a gravity model to estimate the relationships between energy consumptions and many kinds of construction material export over the period 1992-2009 in China. The empirical result shows that energy consumptions have a significant and positive influence on the construction material export of China.

Keywords:

Construction material, Export, Energy consumptions, Gravity model

76.中國房地產相關政策對房地產 H 股股價影響研究

胡逸彪、宋宇、衣方磊

澳門科技大學　行政與管理學院

會議/刊物名稱：

澳門科技大學學報，第 5 卷，第 2 期，pp.61-68，2011 年 12 月

內容簡介：

本文運用事件研究法，從香港股票市場抽取房地產 H 股的日收市價作爲樣本，分析中國政府的利率政策及房地產調控政策對房地產 H 股股價的影響。結果表明，中國政府的利率調整和房地產調控政策對房地產市場的影響各有不同，其中：1)於研究期間的利率政策對內地房地產 H 股的股價具有顯著的影響，股價於利率上調事件的信息公佈後呈上升走勢；2)下調借貸利率的信息公佈則令 H 股股價出現滯後上升的現象。3)中國政府的房地產調控政策則對房地產 H 股的股價不具有顯著的影響。

關鍵詞：

事件研究法、房地產政策、利率調整

76.A study of the impact of China's real estate related policy on H share stock price

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Name of Conference/Journal:

Journal of Macau University of Science and Technology, Volume 5, Issue 2, pp.37-51, DEC 2011

Abstract:

This paper base on Event Study, the samples was taken daily closing price form the Hong Kong stock market real estate H share, combining the practical circumstances in order to discover the market reaction to the Chinese government real estate related policies. The analysis shows difference reaction form the interest rate policy and estate regulatory police: 1) the interest rate policy had a significant impact to the market price of the real estate H share and the stock price was raised up after the event information announced. 2) The decreasing lending rate policy had a remarkable impact to the market price of the real estate H share and the stock price was lagged raised up after the event information announced. 3) China's real estate regulatory policy with no significant impact to the market price of the real estate H share.

Keywords:

Event Study; Real Estate Policy; Interest Rate Adjustment

77.作業組特徵因子對排程算法縮放參數的影響

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澳門科技大學　行政與管理學院

會議/刊物名稱：

2011 國際材料和信息技術會議，ICMPMIT 2011，pp.23-29，2011 年 9 月 10-11 日，中國重慶，EI 檢索，會議文章

內容簡介：

復合分派規則因爲其相對簡單并且求解迅速的算法，在解決實際排程問題時具有重要的現實意義。要讓復合分派規則有好的排程表現，需要爲其確定恰當的縮放參數的值，而好的縮放參數的值又與作業組的特徵因子緊密相關。本文利用基于面心立方體設計的實驗，研究考慮作業間準備時間的直觀延誤成本復合分派規則 ATCS 在解決 Pm|sjk|ΣwjTj 排程問題時，作業組的特徵因子與縮放參數的值的關係，實驗結果揭示了作業組的特徵因子對于縮放參數的動態影響。

關鍵詞：

復合分派規則、考慮作業間準備時間的直觀延誤成本復合分派規則、縮放參數、實驗設計、面心立方體設計

77.Impact assessment of job machine factors on scaling parameters

Chen, Y (Chen Yan)

Faculty of Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Advanced Materials Research - 2011 International Conference on Mechanical Properties of Materials and Information Technology, ICMPMIT 2011, pp.23-29, September 10, 2011 - September 11, 2011, Chongqing, China, EI indexed, conference article

Abstract:

Composite dispatching rules are of great importance in solving realistic scheduling problems because they are fast and easy to implement. The successful implementation of composite dispatching rules depends on their scaling parameter values, while further the appropriate scaling parameter values are determined by specific problem instance features, i.e. job machine factors. In this paper, a Face-centered Cube experimental design is proposed to study the impact of job machine factors on scaling parameter values when Apparent Tardiness Cost with Setups (ATCS) rule is used to schedule Pm|sjk|∑w jTj problem. The dynamics between the job machine factors and the good scaling parameter values are revealed by experimental results.

Keywords:

Composite dispatching rules; Apparent tardiness cost with setups (ATCS) rule; Scaling parameters; Experimental design; Face-centered cube experimental design

78.信任、承諾、關係行爲與關系績效中介作用

嚴興全、周庭銳、李雁晨

澳門科技大學　行政與管理學院

會議/刊物名稱：

管理評論，第 23 卷，第 3 期，pp.71-81，2011 年 3 月，中文核心期刊要目總覽(2008)，CSSCI 檢索

內容簡介：

本研究通過抽樣調查驗證了買方對於賣方的信任和承諾對於買方行爲的影響及其對買方的績效含義。研究結果顯示，買方對賣方的信任和承諾會影響買方在雙方商業關係中的行爲，這些行爲對於買方的績效具有積極意義。然而，信任和承諾對關係行爲的影響存在不同。與假設相反，買方對賣方的信任提高了買方正式控制機制的使用，而買方對賣方的承諾則降低了買方的默許行爲，這些效應有助于買方績效。

關鍵詞：

信任、承諾、關係行爲、關係績效

78.Trust, Commitment, Relational Behavior and Performance: the Buyers'Perspective

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Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

MANAGEMENT REVIEW, Volume 23, Issue 3, pp.71-81, MAR 2011, A Guide to the Core Journal of China (PKU), CSSCI indexed

Abstract:

The authors empirically investigate the effects of buyers trust and commitment to seller on buyers relational behavior and its performance implications to the buyers. Survey results show that buyers trust and commitment to seller have positive effects on buyers performance through the mediation of buyers relational behavior. Interestingly, contrary to our hypotheses, buyers trust has a positive impact on their use of formal control mechanism, while buyers commitment has a negative impact on their acquiescence towards seller’s unilateral behavior. This effect has positive impact on relationship performance.

Keywords:

Trust, Commitment, Relational behavior, Relationship performance

79.有向網絡中的多設施有序重心選址問題

唐華軍、鄭大昭、吳志圖

澳門科技大學 行政與管理學院

會議/刊物名稱：

系統科學與複雜性學報，第 24 卷，第 1 期，pp.61-67，2011 年 2 月，SCI-E 檢索，EI 檢索

內容簡介：

本論文中我們應用有限控制集來研究有向強連通網絡中的多設施有序重心選址問題。首先，我們證明了該選址問題中網絡頂點集至少含有一個有限控制集，此結果不僅拓展了 Kalcsics 等人於 2002 年在 Operations Research Letters 上發表的研究結果，而且將同類問題中的單設施延拓到多設施的情形，填補了該研究領域的一個空白。然後，在此結果的基礎上我們給出了一種精確求解該問題的算法。然而，當此問題的規模變大時，要求得該問題的最優解就顯得不現實，因爲該問題是 NP 困難的。因此我又給出了一種常數因子的近似算法。最後，我們提出了一個尚待解決的問題作爲未來研究的一個方向。

關鍵詞：

有限控制集、多設施有序重心選址問題、僞平衡、算法

79.Multi-facility Ordered Median Problems in Directed Networks

Tang, HJ (Tang Hua-Jun); Cheng, ETC (Cheng, Edwin T.C.); Ng, CT (Ng, C.T.)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Systems Science & Complexity, Volume 24, Issue 1, pp.61-67, Feb 2011, SCI-E indexed, EI indexed

Abstract:

We use a finite dominating set (FDS) to investigate the multi-facility ordered median problem (OMP) in a strongly connected directed network.

We first prove that the multi-facility OMP has an FDS in the node set, which not only generalizes the FDS result provided by Kalcsics et al. (Operations Research Letters, 30, 149-158, 2002), but also extends the FDS result from the single-facility case to the multiple case, filling an important gap. Then, based on this FDS result, we develop an exact algorithm to solve the problem.

However, if the number of facilities is large, it is not practical to find the optimal solution, because the multi-facility OMP in directed networks is NP-hard. Hence we present a constant-approximation algorithm for the p-median problem in directed networks. Finally we pose an open problem for future research.

Keywords:

Finite dominating sets, Multi-facility ordered median problem, Pseudo-equilibria, Algorithms

80.澳門發財巴數量之優化研究

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澳門科技大學　行政與管理學院

會議/刊物名稱：

第 4 屆計算機科學與優化國際會議論文集，pp.1300-1303，2011 年 4 月 15 日-19 日, 中國雲南昆明，EI 檢索，會議文章

內容簡介：

本論文旨在優化澳門發財巴的擁有量。首先，本文調研了澳門 15 個主要娛樂場的發財巴營運狀況，包括其營運時間、發車頻率，載客數量等。然后，本文建立了有效的決策模型對發財巴的數量進行優化。最後，本文的結論是通過優化，澳門發財巴的數量在保持原有服務水平的前提下可降低 49.4%。

關鍵詞：

發財巴數量、車輛調度、線性規劃

80.Optimizing the population of free shuttle buses in Macau

Xu, XL (Xu Xinlong); Tang, HJ (Tang, Huajun); Pang, C (Pang Chuan)

Faculty of Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Proceedings - 4th International Joint Conference on Computational Sciences and Optimization, CSO 2011, pp.1300-1303, 15-19 April 2011, Kunming, Lijiang, Yunnan, China, EI indexed, conference article

Abstract:

This paper aims to optimize the population of the free shuttle bus (FSB) in Macau. Firstly, we investigate the operational conditions of the FSBs among the fifteen casinos in Macau, including the transit time of FSBs and the number of passengers. Then we build an effective decision model to optimize the population of FSBs. Finally, we conclude that the present number of FSBs could be reduced by 49.4% with the present service level.

Keywords:

Population of Free Shuttle Bus, Vehicle Scheduling, Linear Programming

81.基於神經網絡考慮宏觀經濟變量的破產預測

周立剛、黎建強、顏至宏

澳門科技大學　行政與管理學院

會議/刊物名稱：

2010 人工智能技術與應用國際會議，pp.80-84，2010 年 11 月，台灣新竹市，會議文章

內容簡介：

由於對公司的破產的準確預測對投資者、出借人、管理者都非常重要，研究者在提高企業破產預測模型的預測能力方面作出了大量的努力。大多數已經有的研究使用財務報表數據進行預測。然而，企業的表現通常會受宏觀經濟的影響。本研究使用神經網絡模型探索宏觀經濟變量在提高企業破產預測準確性的可能性。基於美國公司的數據實驗結果表明，採用宏觀經濟數據的模型的預測準確性較未採用宏觀經濟數據的模型有小幅的提高。

關鍵詞：

破產預測、宏觀經濟變量、神經網絡

81.Bankruptcy Prediction Incorporating Macroeconomic Variables Using Neural Network

Zhou, LG (Zhou Li-Gang); Lai, KK (Lai Kin-Keung); Yen, J (Yen Jerome)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

2010 International Conference on Technologies and Applications of Artificial Intelligence, pp.80-84, Nov 2010, Hsinchu, Taiwan, conference article

Abstract:

Since correct prediction of bankruptcy prediction of a company is very important for investors, lenders and managers, most efforts have been done to improve the predictive capability of corporate bankruptcy prediction models. Most previous studies use corporate financial statement to do bankruptcy prediction. However, corporate performance is always affected by macroeconomic conditions. This study explores the effect of macroeconomic variables on improving the predictive accuracy of corporate bankruptcy prediction with neural networks models. The experiments based on data from USA firms shows that neural networks models incorporating macroeconomic variables can made slight improvement on predictive accuracy with comparison to models without the macroeconomic information.

Keywords:

Bankruptcy prediction, Macroeconomic variables, Neural networks

82.高科技產業的戰略外包投資

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會議/刊物名稱：

非洲商業管理期刊，第 5 卷，第 12 期，pp.4666-4676，2011 年 6 月，SSCI 檢索

內容簡介：

外包戰略是高科技產業的重要運營模式，然而，應該採用供應商導向還是製造導向的戰略還是存在許多爭議。另外，隨著社會及經濟環境的複雜化、技術變化的加速，如何選擇投資戰略變成一個很重要但又未解的一個問題。本研究就是針對以上問題，提出合理的解決途徑。本文首先討論戰略外包投資的機理，它們的影響因素，最後提出不同的模型來求解最優化的外包策略，以便找到最佳的戰略外包項目。

關鍵詞：

分析網絡程序、優勢、機會、成本、風險、戰略外包投資

82.Strategic outsourcing investment in high technology industry

Chen, Hsing Hung; Xing, Xiaoqiang

Faculty of Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

AFRICAN JOURNAL OF BUSINESS MANAGEMENT, Volume 5, Issue 12, pp.4666-4676, Jun 2011, SSCI indexed

Abstract:

In a highly competitive industry, especially high-tech industry, a firm needs to have appropriate outsourcing strategies in order to survive. However, a firm used to have a strategic dilemma between supplier-oriented strategy and production-oriented strategy. Because of increasing complexity in the socio-economic surroundings along with rapidly changing technologies, how to have a suitable outsourcing investment is becoming an important focus for companies. However, there is no such a research in previous literatures. In order to fill the vacancy, the paper tries to briefly discuss the mechanisms of strategic outsourcing investment, its critical success criteria, and then introduce different evaluation models to help in having suitable outsourcing investment. Finally, the paper finds that an analytic network process (ANP) associated with benefits, opportunities, costs and risks (BOCR), is optimal to help companies to select the most suitable outsourcing investment projects.

Keywords:

Analytic Network Process (ANP); Benefits; Opportunities; Costs and Risks (BOCR); Strategic outsourcing investment

83.矽晶薄膜光伏產業的戰略產品分析模型研究

李欣宜、陳省宏、康耀鶴

澳門科技大學　行政與管理學院

會議/刊物名稱：

可再生及可持續能源評論，第 12 卷，第 2 期，pp.1271-1283，2011 年 2 月，SSCI 檢索，EI 檢索

內容簡介：

隨著自然資源的短缺及環境資源的保護，能夠提供清潔及豐富能源的再生能源變成愈來愈重要。光伏的應用是再生能緣的新生力量，然而，製造成本過高及轉換效率過低是其尚未克服的缺陷。目前光伏產業最重要的待解決問題是如何提升技術能力及如何設計產品戰略。所以，爲了繁榮光伏產業，本文提出最優化模型來找到最佳的產品戰略。

關鍵詞：

光伏產業、模糊網絡分析模型、產品戰略

83.A model to analyze strategic products for photovoltaic silicon thin-film solar cell power industry

Lee, Amy H. I.; Chen, Hsing Hung; Kang, He-Yau

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

RENEWABLE & SUSTAINABLE ENERGY REVIEWS, Volume 15, Issue 2, pp.1271-1283, FEB 2011, SSCI indexed, EI indexed

Abstract:

With natural resource scarcity and environmental protection, the use of renewable energy has become a promise for offering clean and plentiful energy. Photovoltaic (PV) solar cell is one of the emerging renewable energy applications; however, it suffers a large difficulty in high production cost with low conversion efficiency currently. Hence, an urgent pressure to upgrade technology and to formulate product strategy is evident in the solar cell power industry. In order to prosper PV silicone solar cell power industry, the paper develops a conceptual model, which is composed of a fuzzy analytic network process with interpretive structural modeling and benefits, opportunities, costs and risks, to help analyze suitable strategic products. The empirical study shows that the conceptual model can effectively and precisely handle such a complicated problem and can lead to an outstanding performance result. (C) 2010 Elsevier Ltd. All rights reserved.

Keywords:

Photovoltaic (PV) solar cell industry; Fuzzy analytic network process; FANP; Interpretive structural modeling (ISM); Product strategy

84.有效及創新的運營 IT 項目研究

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澳門科技大學　通識教育部

會議/刊物名稱：

資訊：跨領域期刊，第 14 卷，第 2 期，pp.333-342，2011 年 2 月，SCI-E 檢索

內容簡介：

IT 項目雖然得到企業廣泛的重視，然而，如何同時保有創新及效率，也就是程序管理如何與知識管理有效整合，仍然是一個無法解決的問題。爲了提出有效的解決方法，本文首先分析 IT 項目的關健決定因素、然後依據項目的成熟期，提出一個概念性模型架構來調合程序管理和知識管理，最後並比較不同成熟期的績效。

關鍵詞：

比較優勢、衝突管理、零壹目標程序、網絡分析程序

84.Operations of IT Projects with Effectiveness and Innovation: Perspectives of the Conflict

Chen, HH (Chen Hsing-hung); Ma, C (Ma Chao)

Faculty of Management and Administration, Macau University of Science and Technology

Department of General Education, Macau University of Science and Technology

Name of Conference/Journal:

INFORMATION, An International Interdisciplinary Journal, Volume 14, Issue 2, pp.333-342, Feb 2011, SCI-E indexed

Abstract:

IT projects have gained the universal attention from worldwide enterprises. However, because the skills of management resulting in innovation and effectiveness are contradictory, firms struggle to find the effective processes management associated with knowledge management for IT project operations. In order to fill the vacancies, this paper first finds critical success criteria of IT projects, then proposes that suitable methods for solving conflicts between knowledge management and process management be applied based on maturity of the project. Finally, an analytic network process with zero-one goal programming is constructed to select the suitable modules and compare the performance of IT projects.

Keywords:

Competitive advantages, Conflict Management

85.“人情”在中國客戶關係投資與關係承諾之間的中介作用

石貴成、施以正、陳潔光、劉丁己、**Fam, Kim-Shyan**

澳門科技大學　行政與管理學院

會議/刊物名稱：

工業營銷管理，第 40 卷，第 4 期，pp.496-502，2011 年 5 月，SSCI 檢索

內容簡介：

國際營銷界對中國版的關係營銷 (relationship marketing) 即“關係”營銷 (Guanxi marketing) 的研究在增長中。然而對于作爲解釋培養和維持“關係”的重要因素 --“人情”却缺乏實證的研究。 本研究總共調查了 245 個中國汽車保險客戶以探究“人情”在客戶關係投資與關係承諾間的中介作用。研究發現驗證了“人情”在這一關係中的中介作用，可以看出“人情”對客戶關係承諾的變換水平有很高的解釋能力。這一研究結果對于如何提高在中國客戶關係承諾提供了有價值的洞見和建議。

關鍵詞：

“關係”、“人情”、客戶關係投資、客戶關係承諾

85.The role of renqing in mediating customer relationship investment and relationship commitment in China

Shi, GC (Shi Guicheng); Shi, YZ (Shi Yizheng); Chan, AKK (Chan Allan K. K.); Liu, MTC (Liu Matthew Tingchi); Fam, KS (Fam Kim-Shyan)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

INDUSTRIAL MARKETING MANAGEMENT, Volume 40, Issue 4, pp.496-502, MAY 2011, SSCI indexed

Abstract:

There is a growing research interest in guanxi marketing, which has been considered the Chinese version of relationship marketing. However, very little empirical research has investigated the implicit nature of renqing, the underlying mechanism that explains the cultivation and maintenance of guanxi. This study examines the role of renqing in mediating customer relationship investment and relationship commitment in the insurance industry. The authors surveyed 245 car insurance policyholders in China. The findings confirm the mediating role of renqing in such relationships and show that renqing explains a very high proportion of the variance in levels of customer relationship commitment. This result offers valuable insights and suggestions as to how to increase levels of customer relationship commitment in China. (C) 2010 Elsevier Inc. All rights reserved.

Keywords:

Guanxi; Renqing; Relationship investment; Relationship commitment

86.專業性服務型組織的高績效人力資源管理系統、情感性承諾、人力資本和員工工作績效:

張博堅、Chen, Shyh-Jer

澳門科技大學　行政與管理學院

會議/刊物名稱：

International Journal of Human Resource Management，第 22 卷，第 4 期，pp.883-901，2011 年，SSCI 檢索

內容簡介：

在現存的研究中，有關高績效人力資源管理系統對於組織績效的影響，大多從宏觀的觀點來做探討，而且主要被應用在製造產業。本研究主要則是採綜觀的觀點，並藉由社會交換理論及人力資本理論的觀點，延伸既有的文獻至小規模專業性服務型組織。樣本資料的收集主要來自於 97 個美髮沙龍店的負責人及 284 個美髮設計師。從跨層次分析的結果來看，員工的情感性承諾和人力資本確實在高績效人力資源管理系統和員工工作績效間扮演跨層次中介的角色。

關鍵詞：

高績效人力資源管理系統、人力資本理論、工作績效、服務性組織、社會交換理論

86.Crossing the level of employee's performance: HPWS, affective commitment, human capital, and employee job performance in professional service organizations

Chang, PC (Chang Po-Chien); Chen, SJ (Chen Shyh-Jer)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

International Journal of Human Resource Management, Volume 22, Issue 4, pp.883-901, 2011, SSCI indexed

Abstract:

Extant research on high-performance work systems (HPWS) has primarily examined the effects of HPWS on firm-level performance from a macro perspective and mostly in manufacturing settings. This study extends this literature by integrating social exchange theory and human capital theory perspectives to examine how shop-level HPWS affect employee individual performance in the service context, especially focusing on the small-scale professional service organizations. Data collected from multiple sources included 97 hair salon shop owners and 284 hairdressers as well as objective job performance measured in terms of each hairdresser's average monthly service sales. Results from cross-level analysis indicated that the relationship between shop-level HPWS and employee job performance was mediated by employee affective commitment and their human capital. These findings shed new light on the mechanisms through which HPWS impact employee outcomes and serve to bridge between macro and micro perspectives of human resource management.

Keywords:

High-performance work systems; Human capital theory; Job performance; Service organizations; Social exchange theory

87.基於每一建築物的數據挖掘空氣評估技術

盛妮、鄧宇華

澳門科技大學　行政與管理學院

會議/刊物名稱：

環境科學與工程前沿，第 5 卷，第 4 期，pp.543-551，2011 年 12 月，SCI-E 檢索

內容簡介：

本論文以澳門半島爲研究對象，展示一個高精度的空氣污染模擬系統在數据捕捉與採集方面的優點。與傳統的空間精度爲 1-2 公里的模擬系統相比，本研究的模擬系統是基於街道兩旁的每一棟建築物，因而可以捕捉複雜的城市形態以及交通污染排放。應用該模擬系統，本研究模擬了澳門半島的空氣污染分佈，精度達每平方公里 319 個模擬點；在此基礎上，本論文討論了澳門歷史城區空氣污染、交通流量、和城市形態三者的關係。研究表明，基於每一棟建築物的空氣污染模擬系統開創了一個採集城市空間數據從而用於環境評估的新方法，這對於城市規劃者討論城市形態與街道環境時尤爲有用。

關鍵詞：

交通空氣污染、空間分佈、高精度、地理信息系統

87.A building-based data capture and data mining technique for air quality assessment

Sheng, N (Sheng Ni); Tang, UW (Tang U. Wa)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

FRONTIERS OF ENVIRONMENTAL SCIENCE & ENGINEERING IN CHINA, Volume 5, Issue 4, pp.543-551, DEC 2011, SCI-E indexed

Abstract:

Recently, a building-based air quality model system which can predict air quality in front of individual buildings along both sides of a road has been developed. Using the Macau Peninsula as a case study, this paper shows the advantages of building-based model system in data capture and data mining. Compared with the traditional grid-based model systems with input/output spatial resolutions of 1-2 km, the building-based approach can extract the street configuration and traffic data building by building and therefore, can capture the complex spatial variation of traffic emission, urban geometry, and air pollution. The non-homogeneous distribution of air pollution in the Macau Peninsula was modeled in a high-spatial resolution of 319 receptors center dot km(-2). The spatial relationship among air quality, traffic flow, and urban geometry in the historic urban area is investigated. The study shows that the building-based approach may open an innovative methodology in data mining of urban spatial data for environmental assessment. The results are particularly useful to urban planners when they need to consider the influences of urban form on street environment.

Keywords:

Traffic air pollution; Spatial distribution; High resolution; Geographic information system

88.城市形態與道路行人所受交通噪音的空間分析

盛妮、鄧宇華

澳門科技大學　行政與管理學院

會議/刊物名稱：

環境研究與公衆健康國際期刊，第 8 卷，第 6 期，pp.1977-1990，2011 年 6 月，SCI-E 檢索

內容簡介：

在澳門半島，高人口密度（每平方公里 49763 人）以及缺乏車輛控制（每公里 460 車輛）已經導致城市環境污染惡化。爲向當地政府和城市規劃者提供有效的信息，本論文研究了澳門半島交通噪音的空間分佈，並重點討論城市形態、交通流量、和交通噪音三者的關係。研究表明澳門半島正面臨嚴重的交通噪音污染。在傍晚繁忙時間，大約 60%的主要行人路邊的交通噪音水平超過國標規定的 70DBA，而大約 21%的行人路邊的交通噪音水平超過國標 5DBA。值得注意的是，歷史城區的行人暴露于高噪音污染下，這會降低遊客的舒適度，破壞澳門作爲一個世界文化遺產地的聲譽。

關鍵詞：

城市形態、交通流量、交通噪音、地理信息系統

88.Spatial Analysis of Urban Form and Pedestrian Exposure to Traffic Noise

Sheng, N (Sheng Ni); Tang, UW (Tang U. Wa)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH, Volume 8, Issue 6, pp.1977-1990, JUN 2011, SCI-E indexed

Abstract:

In the Macao Peninsula, the high population density (49,763 inhabitants/km(2)) and the lack of control over the number of vehicles (460 vehicles/km) have led to an increase in urban pollution. To provide useful information to local government and urban planners, this paper investigates the spatial distribution of traffic noise in the Macao Peninsula. The interactions among urban form, traffic flow and traffic noise are addressed. Considering the spatial nature of urban geometry and traffic, a high-resolution GIS-based traffic noise model system is applied. Results indicate that the Macao Peninsula has fallen into a situation of serious traffic noise pollution. About 60% of traffic noise levels along the major pedestrian sidewalks in the evening peak hour exceed the National Standard of 70 dB(A) in China. In particular, about 21% of traffic noise levels along the pedestrian sidewalks are above the National Standard by 5 dB(A). Noticeably, the high pedestrian exposure to traffic noise in the historical urban area reduces the comfort of tourists walking in the historic centre and is ruining the reputation of the area as a World Cultural Heritage site.

Keywords:

Urban form; Traffic volume; Traffic noise; GIS

89.澳門公務人員公積金所得替代率研究

朱順和

澳門科技大學　行政與管理學院

會議/刊物名稱：

2011 年電腦科學與服務系統國際研討會-會議論文，pp.1565-1567， 27-29 June 2011, 2011 年 6 月 27 日-29 日，中國南京，EI 檢索，會議文章

內容簡介：

本研究基於現實經濟觀點的薪資成長率、通貨膨脹率、投資報酬率、可忍受風險、匯率風險、工作年限、退休生活年限等假設因素，運用資產薪資比率模型，檢視澳門公務人員公積金財務計劃。研究主要結論爲若從 25 歲開始工作，到 36 歲即可依此一退休基金財務計畫達到 30%所得替代率的目標；到 44 歲可達到 50%所得替代率的目標；到 54 歲可達到 70%所得替代率的目標。另外，建議澳門退休基金會應慎選股票投資基金種類外，應教育公務人員以資產薪資比率作爲是否達成目標所得替代率及調整投資組合的衡量指標。

關鍵詞：

所得替代率、資產薪資比率、資產配置、確定供款制

89.Research of the income replacement ratio of Provident Fund Scheme in Macau

Chu, SH (Chu Shun-Ho)

Faculty of Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

2011 International Conference on Computer Science and Service System, CSSS 2011 – Proceedings, pp.1565-1567, 27-29 June 2011, Nanjing, China, EI indexed, conference article

Abstract:

This study mainly uses asset/salary ratio model to assess the financial planning of Provident Fund Scheme in Macau based on assumptions of growth rate of salary, inflation rate, return on investment, tolerant risk, exchange rate risk, length of working, and length of retirement life under the current economic perspectives. The main findings show that the age of 36 can attain the income replacement ratio at 30%; the age of 44 at 50%; the age of 54 at 70% given the first year of working is age of 25. In addition, this study also proposes that the Fundo de Penso˜es de Macau should select the types of global stocks mutual funds prudentially and also should educate the public servants to use asset/salary ratio as a measure to assess whether it can achieve the target income replacement ratio and to balance the portfolio.

Keywords:

Income replacement ratio; Asset/salary ratio; Asset allocation; Defined contribution

90.退休基金財務規劃對所得替代率影響之研究

朱順和

澳門科技大學　行政與管理學院

會議/刊物名稱：

澳門科技大學學報，第 5 卷，第 2 期，pp.19-28，2011 年 12 月

內容簡介：

本研究主要針對澳門公務人員公積金制度之退休基金財務計劃進行分析，在現有公積金制度規定的提撥率情形下，根據實際的經濟環境，提出薪資成長率、通貨膨脹率、投資報酬率、可忍受風險、匯率風險、工作年限、退休生活年限等假設因素，運用資產薪資比率模型，檢視此一退休基金財務計劃，是否可以達到一定程度的所得替代率。研究主要結論：若從 25 歲開始工作，到 36 歲即可依此一退休基金財務計劃達到 30%所得替代率的目標；到 44 歲可達到 50%所得替代率的目標；到 54 歲可達到 70%所得替代率的目標。本研究對澳門公務人員公積金主管機關澳門退休基金會提出政策建議，應教育公務人員藉由資產薪資比率檢視能否達成其目標所得替代率的觀察指標。

關鍵詞：

退休基金、所得替代率、確定提撥制、資產薪資比率

90.A Study on the Impact of Financial Planning of Pension Fund on the Income Replacement Ratio

Chu, SH (Chu Shun-Ho)

Department of General Study, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Macau University of Science and Technology, Volume 5, Issue 2, pp.19-28, DEC 2011

Abstract:

This study is mainly to analyze the financial planning of Provident Fund Scheme for Workers in the Public Services (PFS). Under the current contribution ratio of the PFS, this paper is to use asset/salary ratio model, based on assumptions of growth rate of salary, inflation rate, return on investment, tolerant risk, exchange rate risk, length of working, and length of retirement life under the current economic perspectives, to assess whether the financial plan can be achieved to the certain level of income replacement ratio. The main findings show that the age of 36 can attain the income replacement ratio at 30%; the age of 44 at 50%; the age of 54 at 70% given the first year of working is age of 25. In addition, this study proposes that the Fund of Pensions of Macau should select the types of global stocks mutual funds prudentially and also should educate the public servants to use asset/salary ratio as a measure to assess whether it can achieve the target income replacement ratio.

Keywords:

Pension fund; Income replacement ratio; Defined contribution plan; Asset/Salary ratio

91.青年員工的工作特性對工作倦怠和工作績效的影響

聶婷、張伶

澳門科技大學　行政與管理學院

會議/刊物名稱：

BMEI 2011 - 2011 年商業管理和電子信息國際會議，pp.209-212，2011 年 5 月 13 日，中國廣州，EI 檢索，會議文章

內容簡介：

研究著重於討論工作特點，工作績效和個人績效之間的關係。在相關研究文獻回顧的基礎上，我們建立的理論框架模型，並提出假說。根據中國的年輕員工的統計調查，我們嘗試探索工作多樣性，工作自主性，工作倦怠，績效的內在聯繫，驗證研究假設，並爲進一步的研究和實踐提出一些建議。

關鍵詞：

工作多樣性、工作自主性、工作倦怠、績效、工作特性

91.The impact of job characteristics on job burnout and work performance of young employees

Nie, T (Nie, Ting); Zhang, L (Zhang Ling)

Faculty of Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

BMEI 2011 - Proceedings 2011 International Conference on Business Management and Electronic Information, pp.209-212, May 13, 2011 - May 15, 2011, Guangzhou, China, EI indexed, conference article

Abstract:

The characteristics of job can affect personal perceptions and behaviors in work place. Our study focuses on discussing the relations between work characteristics, job burnout and individual performance. Based on the literature review of the related studies, we establish the theorical model and propose hypotheses. Though survey of young workers in companies in China, we try to explore job variety, job authority, job burnout and work performance and give some suggestions for further study and practice.

Keywords:

Job Variety; Job Authority; Job Burnout; Performance; Job Characteristics

92.RFID 在供應鏈管理中的應用趨勢(2009-2010)：文本挖掘分析

伍向豪、石永東

澳門科技大學　行政與管理學院

會議/刊物名稱：

企業網絡管理國際學報，第 4 卷，第 1 期，pp.92-102

內容簡介：

近年來許多研究探討了 RFID 在供應量管理中的應用；然而研究 RFID 應用趨勢的文獻很少。本研究旨在探討 2009-2010 年 RFID 應用趨勢。其貢獻包括：第一，發現 RFID 應用從關注技術轉向系統和公司級應用；第二，找到一種用文本挖掘探討趨勢變化的新方法。

關鍵詞：

高頻識別、RFID、供應鏈管理、SCM、文本挖掘、Konstan 信息挖掘、KNIME

92.The Trend of RFID Application to the Supply Chain Management (2009–2010): a Text Mining Analysis

Wu, SH (Wu Shiang-Hau); Shi, YD (Shi Yong-Dong)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

International Journal of Enterprise Network Management, Vol. 4, No.1, pp.92-102

Abstract:

In recent years, much research has been devoted to the exploration of the application of RFID to the supply chain management; however, few have deployed the study of the trend of RFID application. In fact, grasping the trend of the RFID application in the supply chain management is imperative for enterprises and researchers. The study aims at exploring the trend change of the RFID application from the year of 2009 to 2010. The contribution of the study includes the following two points. First, the study has found the shift of the RFID application from the technological focus to the topics of system and companies usage. Second, the study finds a new way of literature survey by using the text mining method in order to explore the trend change.

Keywords:

Radio frequency identification, RFID, Supply chain management, SCM, Text mining, Konstanz Information Miner, KNIME

93.依據文本內容以文本挖掘法分析聯合國安理會 1970 和 1973 號決議案

伍向豪、郭建中

澳門科技大學　行政與管理學院

會議/刊物名稱：

International Journal of Digital Content Technology and its Applications, 第 5 卷，第 10 期，pp.219-233，2011 年 10 月，EI 檢索

內容簡介：

中國的外交決策受到學術界的廣泛關注。有關利比亞變局的決議中，中國在聯合國第 1970 號決議案中投贊成票，卻在第 1973 號決議案中投反對票。本研究即以文本挖掘法分析這兩個決議案的關鍵詞，以理解中國在選擇投票意向中的關鍵，藉以瞭解中國的外交決策模式。

關鍵詞：

Decision making process; Diplomatic policies; Literature survey; Text materials

93.The text mining analysis of UN security council resolutions no.1970 and no.1973 based on text materials

Wu, SH (Wu Shiang-Hau); Guo, Jiannjong

Faculty of Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

International Journal of Digital Content Technology and its Applications, Volume 5, Issue 10, pp.219-233, OCT 2011, EI indexed

Abstract:

In recent years, much research has been devoted to the analysis of the China's diplomatic policies. The outcome of China's diplomatic decision-making process has shown in the two UN Security Council resolutions regarding the Libyan uprising. China voted in the affirmative for the resolution No.1970, but abstained for the resolution No.1973. In this paper, we analyzed the keywords in these two resolutions via the text mining method. The contribution of the study included the following two points. First, the study has found the keywords difference between the two resolutions and concluded the decision-making of China's voting regarding the two Resolutions. Second, the study found a new way of literature survey in diplomatic studies by using the text mining analysis.

Keywords:

Decision making process; Diplomatic policies; Literature survey; Text materials

94.飛灰的研究趨勢研究(2000-2010)

伍向豪、郭建中

澳門科技大學　行政與管理學院

會議/刊物名稱：

Advanced Materials Research, Green Building Technologies and Materials，GBTM 2011，pp.8-11，2011 年 5 月 30 日，比利時布魯塞爾，EI 檢索，會議文章

內容簡介：

本論文以文本挖掘法研究與飛灰相關論文的摘要，以瞭解十年內飛灰的研究趨勢。本論文發現飛灰研究的趨勢在十年內有顯著的變化。

關鍵詞：

Konstanz information miner (KNIME); Literature survey; Research trends; Text mining; Text mining analysis

94.A text mining analysis of the fly ash research trend (2000-2010)

Wu, SH (Wu Shiang-Hau); Guo, Jiann Jong

Faculty of Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Advanced Materials Research, Green Building Technologies and Materials, GBTM 2011, pp.8-11, May 30, 2011 - May 30, 2011, Brussels, Belgium, EI indexed, conference article

Abstract:

In recent years, much research has been devoted to the fly ash research; however, few have deployed the study of the research trend. In fact, grasping the research trend is imperative for enterprises and researchers. The study aims at exploring the trend change of fly ash research from 2000 to 2010. The contribution of the study includes the following two points. First, the study has found the shift of the fly ash research from shifts from "concrete" and "pulse" related issues to the focuses of "absorption" and "metal". Second, the study finds a new way of literature survey by using the text mining method in order to explore the trend change.

Keywords:

Konstanz information miner (KNIME); Literature survey; Research trends; Text mining; Text mining analysis

95.2009 年美中聯合公報的文本挖掘研究

伍向豪、郭建中

澳門科技大學　行政與管理學院

會議/刊物名稱：

Communications in Computer and Information Science (CCIS, Springer Verlag), Vol. 216, Part 3, Advances in Computer Science, Environment, Ecoinformatics, and Education - International Conference, CSEE 2011, Proceedings, pp.609-612，2011 年 8 月 21-22 日，中國武漢，EI 檢索，會議文章

內容簡介：

美中關係的研究是國際關係研究中的焦點之一。本文即從文本挖掘法分析 2009 年美中聯合公報，以探索美中關係在 2009 年的關注點。

關鍵詞：

Content analysis; Joint Statement; KNIME (Konstanz Information Miner); Literature survey

95.A text mining analysis of the U.S.-China joint statement in 2009 based on network

Wu, SH (Wu Shiang-Hau); Guo, Jiannjong

Faculty of Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Communications in Computer and Information Science (CCIS, Springer Verlag), Vol. 216, Part 3, Advances in Computer Science, Environment, Ecoinformatics, and Education - International Conference, CSEE 2011, Proceedings, pp.609-612, August 21, 2011 - August 22, 2011, Wuhan, China, EI indexed, conference article

Abstract:

In recent years, much research has been devoted to the analysis of the U.S.-China relationship. However, few have deployed the content analysis of the joint statements between both countries in order to grasp the change of the relationship in different time frames. In fact, grasping the trend of the U.S.-China relationship is imperative for academic researchers and policy makers. In this paper, we analyze the trend of the U.S.-China relationship by means of applying the text mining analysis to joint statements in the year of 2009. The contribution of the study includes the following two points. First, the study has found the focus of joint statement. Second, the study finds a new way of literature survey in diplomatic studies.

Keywords:

Content analysis; Joint Statement; KNIME (Konstanz Information Miner); Literature survey

96.以文本挖掘法分析瀝青研究的趨勢(2000-2010)

伍向豪、郭建中

澳門科技大學　行政與管理學院

會議/刊物名稱：

Applied Mechanics and Materials, Green Power, Materials and Manufacturing Technology and Applications, Vol. 84-85, pp.681-685, Transtech Publications, GPMMTA2011，2011 年 7 月 15-18 日，中國重慶，EI 檢索，會議文章

內容簡介：

本文以文本挖掘法分析瀝青相關研究於 2000 年至 2010 年的研究趨勢，發現在這個時間點中研究趨勢呈現明顯的變化。

關鍵詞：

Literature survey; Research trends; Text Mining; Text mining analysis

96.The trend change of bitumen research: A text mining analysis (2000-2010)

Wu, SH (Wu Shiang-Hau); Guo, Jiannjong

Faculty of Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Applied Mechanics and Materials, Green Power, Materials and Manufacturing Technology and Applications, Vol. 84-85, pp.681-685, Transtech Publications, GPMMTA2011, July 15, 2011 - July 18, 2011, Chongqing, China, EI indexed, conference article

Abstract:

In recent years, much research has been devoted to the Bitumen research; however, few have deployed the study of the research trend. In fact, grasping the research trend is imperative for enterprises and researchers. The study aims at analyzing the trend change of Bitumen research from 2000 to 2010. The contribution of the study includes the following two points. First, the study has found the shift of the Bitumen research from "distribution" and "sand" related issues to the focuses of "surface" and "polymer". Second, the study finds a new way of literature survey by using the text mining method in order to explore the trend change.

Keywords:

Literature survey; Research trends; Text Mining; Text mining analysis

97.以文本挖掘法分析仿生學的研究趨勢(2000-2010)

伍向豪、郭建中

澳門科技大學　行政與管理學院

會議/刊物名稱：

Advanced Materials Research, Advanced Research on Information Science, Automation and Material System , Vol. 219-220, pp.479-482, Trans Tech Publications, 2011 年 5 月 21-22 日，中國鄭州，EI 檢索，會議文章

內容簡介：

本研究以文本挖掘法分析仿生學研究從 2000 年至 2010 年的研究趨勢，並發現在這個時間點內，研究趨勢呈現明顯的變化。

關鍵詞：

Literature survey; Research trends; Text Mining; Text mining analysis

97.A text mining analysis of the biomimetics research trend (2000-2010)

Wu, Shiang Hau; Guo, Jiann Jong

Faculty of Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

Advanced Materials Research , Advanced Research on Information Science, Automation and Material System , pp.479-482, May 21, 2011 - May 22, 2011, Zhengzhou, China, EI indexed, conference article

Abstract:

In recent years, much research has been devoted to the biomimetics research; however, few have deployed the study of the research trend. In fact, grasping the research trend is imperative for enterprises and researchers. The study aims at analyzing the trend change of biomimetics research from 2001 to 2010. The contribution of the study includes the following two points. First, the study has found the shift of the biomimetics research from shifts from "scaffold" and "engine" related issues to the focuses of "surface" and "structure". Second, the study finds a new way of literature survey by using the text mining method in order to explore the trend change.

Keywords:

Literature survey; Research trends; Text Mining; Text mining analysis

98.消費者決策行爲中的情境效應研究評述及展望

張全成、盧東、周庭銳

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會議/刊物名稱：

軟科學，第 25 卷，第 10 期，pp.130-134，2011 年 10 月，中文核心期刊要目總覽(2008)，CSSCI 檢索

內容簡介：

要介紹了消費者決策行爲中情境效應的主要表現形式及相關概念，並對情境效應的相關研究成果進行了回顧和整理。

關鍵詞：

情境效應、吸引效應、折衷效應

98.A Review of Literature on Context Effect in Customer Choice Behavior and Future Research Prospect

Zhang, QC (Zhang Quan-Cheng); Lu, D (Lu Dong); Zhou (Zhou Ting-Rui)

Faculty of Management and Administration, Macau University of Science and Technology

Name of Conference/Journal:

A Review of Literature on Context Effect in Customer Choice Behavior and Future Research Prospect, Volume 25, Issue 10, pp.130-134, OCT 2011, A Guide to the Core Journal of China (PKU), CSSCI indexed

Abstract:

This paper introduces the conception and main form of context effect in customer choice behavior, and then reviews the past research result of context effect.

Keywords:

Context effect; Attraction effect; Compromise effect; Customer preference

99.民營化、外資流入與中國經濟增長：1978-2008

趙世勇

澳門科技大學　行政與管理學院

會議/刊物名稱：

澳門科技大學學報，第 5 卷，第 2 期，pp.37-51，2011 年 12 月

內容簡介：

中國 1978-2008 年間的經濟增長是一個奇蹟，本文試圖發現並量化這一經濟奇蹟的決定因素。一般認爲，經濟改革和對外開放是中國經濟成功的關鍵，但是這樣的說法不夠精確。本文提出了兩個假說：產權變革 (民營化) 和外資流入是中國經濟成功的兩個關鍵因素。我們聚焦產權變革和外資流入對經濟增長貢獻的具體機制，並使用一個包括中國大陸 31 個省、1978-2008 年的數據庫進行實證檢驗，檢驗結果支持我們的假說。我們推測，進一步的經濟增長取決於進一步的產權變革和對外開放，而不是國有化。

關鍵詞：

民營化、外資流入、經濟增長、經濟改革和對外開放

99.China's Economic Growth in the Process of Privatization and FDI Inflow: 1978-2008

Zhao, SY (Zhao Shiyong)

Department of General Study, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Macau University of Science and Technology, Volume 5, Issue 2, pp.37-51, DEC 2011

Abstract:

China's economic growth over 1978-2008 is a miracle. This paper attempts to figure out and quantify the factors leading to this miracle. It is generally believed that economic reform and opening up is the key to China's economic success, but that is far from being exact and specific. This study hypothesizes that privatization and FDI inflow are the two key factors in this process. We focus on identifying the exact, specific, and detailed mechanisms of privatization and FDI inflow in promoting economic growth. Then using a panel data covering 31 provinces of Chinese mainland over 1978-2008, we find statistically significant evidence to support our hypotheses. We predict that further economic growth depends on further privatization and opening up, that is, depends on denationalization of the economy.

Keywords:

Privatization; FDI Inflow; Economic Growth; Reform and Opening up

100.日本大地震對我國構建地震保險法律制度的啓示

劉麗、黃明健

澳門科技大學　法學院

會議/刊物名稱：

《2011 年全國環境資源法學研討會（年會）論文集》，2011 年 8 月，中國桂林，會議文章

內容簡介：

今年“3.11”日本大地震後，由於日本健全的地震保險法律制度，其經濟得以快速恢復發展。本文在借鑒日本地震保險法律制度的基礎上，從建立專門的立法、多元化的地震損失分攤機制、地震保險法律制度的試點及警惕核洩漏危機四個方面闡述了日本大地震對我國構建地震保險法律制度的一些啓示，旨在於揚長避短，對完善和發展我國地震保險法律制度提供一些建議。

關鍵詞：

地震保險、法律制度、構建、啓示

100.The Enlightenment of the Japan's Big Quake on Constructing China's Earthquake Insurance Law System

Liu, L (Liu Li); Huang, MJ (Huang Ming-jian)

Faculty of Law, Macau University of Science and Technology

Name of Conference/Journal:

Proceedings of Conference in 2011 of Environment and Resources Law Society of China Law Society, Aug 2011, Guilin, China, conference article

Abstract:

March 11, 2011, a big earthquake in Japan, because of the perfect earthquake insurance law system, its economic redevelop rapidly. This paper based on the basis of learning Japan's earthquake insurance law system. From set up legislation, establish a diversified earthquake loss allocation mechanism, establishing the pilot of the earthquake insurance law system and vigilance nuclear leakage crisis four aspects. Expounds the enlightenment of the Japan's massive quake on constructing China's earthquake insurance law system. The purpose of the article is to foster strengths and circumvent weaknesses, provide some legal advice on improving and developing the earthquake insurance legal system in our country.

Keywords:

Earthquake insurance, Law system, Construction, Enlightenment

101.我國環境事故應急處理制度探析

王倩、黃明健

澳門科技大學　法學院

會議/刊物名稱：

《2011 年全國環境資源法學研討會（年會）論文集》，2011 年 8 月，中國桂林，會議文章

內容簡介：

近年來，我國伴隨著經濟的空前繁榮，突發環境事故也頻繁的發生，因此迫切需要一個完善的應對環境事故的應急機制。文章對法律法規的完善、國家機關的相互協調、非國家組織和個人的參與、環境資訊的及時和準確發佈進行了分析，提出了一些觀點和建議，希望對完善我國環境事故應急制度有所幫助。

關鍵詞：

突發環境事故、應急機制、資訊公開

101.Analysis of Ring Our Emergency Management System Environment

Wang, Q (Wang Qian); Huang, MJ (Huang Ming-jian)

Faculty of Law, Macau University of Science and Technology

Name of Conference/Journal:

Proceedings of Conference in 2011 of Environment and Resources Law Society of China Law Society, Aug 2011, Guilin, China, conference article

Abstract:

In recent years, along with the development of economic the environmental accidents have frequently occurred, and there need an urgent for a comprehensive emergency response mechanism for environmental accidents. The author analysis some problems, such as the improvement of laws and regulations, with coordination between state agencies, non-state organizations and individuals involved, the state information in a timely and accurate release, and put forward their views and suggestions author hopes this suggestions can help improvement of environmental emergency system .

Keywords:

Outburst environmental events, Emergency mechanism, Information public

102.澳門受賄罪的立法檢討：從法益的實然內容與應然內容入手

方泉

澳門科技大學　法學院

會議/刊物名稱：

第一屆兩岸四地刑事法論壇論文集，2010 年 6 月，台灣，會議文章

內容簡介：

澳門刑法對公務員的範圍界定相當寬泛，其中包括以博彩公司爲主的專營公司的工作人員。在存在私營部門的受賄罪的前提下，這種界定造成定罪方面的困擾，更導致立法所保護的法益內容不明。本文從法益與罪狀的關係入手，通過構成要件歸納澳門受賄罪的實然法益，揭示其尷尬狀況，進而以應然法益審視其構成要件，進行立法檢討，並提出修改方案，以期更好地實現澳門公務員受賄罪的立法目的。

關鍵詞：

受賄罪、公務員、法益、澳門刑法

102.Review of Bribery Crime of Macau Criminal Law: In Perspective of Legal Interest

Fang, Q (Fang Quan)

Faculty of Law, Macau University of Science and Technology

Name of Conference/Journal:

Proceeding of Cross-Straits Criminal Law Forum, Jun 2010, Taiwan, conference article

Abstract:

The over-extensive definition of civil servant in Macau Penal Code leads to many disputes and confusion on legislative interpretation and justice enforcement of bribery crime, among which is that no explicit legal interest can be induced. Revise is necessary to protect the due legal interest.

Keywords:

Bribery Crime, Civil Servant, Legal Interest, Macao Penal Code

103.從系統中尋找法學教育的跨學科路徑

方泉

澳門科技大學　法學院

會議/刊物名稱：

兩岸四地法律發展：法學教育與法治教育，台灣，會議文章

內容簡介：

本文是對戴耀庭教授《跨學科與法學教育》一文的評論。跨學科日漸被用以解釋和解決普遍聯繫的世界中的重大問題，戴教授文章的目的在於爲將大學跨學科教育的實踐從嘗試推向模式提供有用的思路和經驗。但在跨學科、多學科與泛學科之間的界限上、跨學科法學教育與法學教育的目的之間的關繫上、在系統理論路徑本身的利弊上、在跨學科與新學科產生的關係等問題上，還存在商榷和深入的空間。現有的關於跨學科法學教育所形成的一些共識還不足以產生實質性的推動作用。應當爲跨學科法學課程設置基本規則，以防跨學科課程泛化。

關鍵詞：

系統論、跨學科、法學教育

103.Searching Out Path to Interdisciplinary Legal Education by System Theory

Fang, Q (Fang Quan)

Faculty of Law, Macau University of Science and Technology

Name of Conference/Journal:

Cross-Straits, Four-Region Law Developments in Taiwan, China, Hong Kong, and Macau: Legal Education for Lawyers and the Public, Taiwan, conference article

Abstract:

This is a comment on Professor Dai's artical "Interdisciplinary and Legal Education". Interdisciplinary legal education has been attempted in some universities. But disputes and confusions of such issues as difference among interdisciplinary, multidisciplinary, and transdisciplinary, relationship between interdisciplinary legal education and target of legal education, etc. remain. It is necessary to study set rule to interdisciplinary courses in depth.

Keywords:

System Theory, Interdisciplinary, Legal Education

104.澳門社會大眾法治教育

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會議/刊物名稱：

2010 兩岸四地法律發展：法學教育與法治教育，pp.979-1004，台灣，會議文章

內容簡介：

澳門社會大眾法治教育的保守性格，發軔於澳葡政府時期。統治當局對占人口絕大多數的華人，在法律上漠視，在教育上投入不足。回歸後，澳門社會大眾法治教育面臨中小學法治教育的“德育化”傾向、政府對成人法治教育定位不准以及執法人員自身利益難以維護等諸多困境。解困之道，在於加強民間力量和政府力量的協調配合，並引導法治教育和法律人學校教育之間展開互動。

關鍵詞：

澳葡政府、社會大眾、法治教育、法律教育、律師公會

104.Law-Related Education of Community in Macau

Shen, YQ (Shen Yunqiao)

Faculty of Law, Macau University of Science and Technology

Name of Conference/Journal:

2010 CROSS-STRAIT, FOUR-REGION: Law Developments in Taiwan, China, Hongkong, and Macau, pp.979-1004, Taiwan, conference article

Abstract:

The law-related education of community in Macau is conservative. It began during the Macanese government when the rulers ignored the local Chinese demands for the law, and the rulers' investment in their education was inadequate. After return to China, the law-related education of community in Macau faces many difficulties including law-related education in primary and secondary tend to "moral education", the government's position on adult education in the law-related education is not accurate, and the law enforcement officers are difficult to maintain their own interests, and so on. How to solve the dilemma? We should strengthen the cooperation between civil power and the government forces, and contributed to the interaction between the law-related education and the legal education.

Keywords:

Macanese Government, Community, Law-Related Education, Legal Education, Bar Association

105.母子公司關聯擔保法律制度研究

沈雲樵

澳門科技大學　法學院

會議/刊物名稱：

澳門科技大學學報，第 5 卷，第 2 期，pp.8-15，2011 年 12 月

內容簡介：

關聯擔保是關聯交易的一種重要形式，在母子公司中表現尤甚。現代各國立法都對此進行了規定，總體立法趨勢是從絕對禁止發展到有條件限制。我國公司法上對此問題也投以關注，但將公司關聯擔保的決定權完全賦予公司章程，則值得商榷。

關鍵詞：

關聯擔保、法律規制、母子公司

105.On the Related-party Guarantee of Parent and Subsidiary Corporations

Shen, YQ (Shen Yunqiao)

Faculty of Law, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Macau University of Science and Technology, Vol.5, No.2, pp.8-15, Dec 2011

Abstract:

Related-party guarantee is an important form of related-party transactions, especially in the patent and subsidiary corporations. It has been legislated in the modern countries, and the overall trend is from an absolute prohibition to limitation. China's Company Law also pay attention to this issue, but it completely authorizes the right to charter of corporation. This point is open to question.

Keywords:

Related-party guarantee, Legal regulation, Parent and subsidiary corporations

106.澳門特區賠償制度研究

趙琳琳

澳門科技大學　法學院

會議/刊物名稱：

《行政》，第 91 期，2011 年 3 月

內容簡介：

與普通的民事賠償不同，國家賠償不僅是一種基於公權力違法行爲而產生的責任，也是一種因公權力行使中潛在危險性所引起的風險責任，或者是對合法行使公權力造成損害後果的一種公平補救責任。對於澳門來說，這一賠償體現爲特區賠償。不過，澳門目前尚無統一、完整的特區賠償制度，相關規定散見於第 28/91/M 號法令《公共管理行爲民事責任法》、《民法典》、《刑事訴訟法典》、《司法官通則》等法律規範中，且有關條文設計簡單，難以適應社會發展的趨勢和需要，特區政府也曾在施政報告中提及完善特區賠償制度，應藉此加以整合、修訂。

關鍵詞：

歸責原則、賠償範圍、賠償程序

106.Research on the Compensation System of Macau SAR

Zhao, LL (Zhao Linlin)

Faculty of Law, Macau University of Science and Technology

Name of Conference/Journal:

Administration, Vol.91, March 2011

Abstract:

The state compensation system is different from the common civil compensation. It is the responsibility not only resulting from the illegal conduct, but also caused by the latent risk and the responsibility of fair recovery for the harmful consequence by the legal conduct in the course of executing public power. As far as Macau SAR is concerned, this compensation responsibility becomes SAR compensation responsibility. This project mainly examines the present SAR compensation systems, and then turns over to the responsibility principle, the compensation scope, the compensation way, the measure of indemnity, the compensation procedure, the additional compensation and so on. In the end, the project will put forward the consummation proposal.

Keywords:

Attribution principle, Compensation scope, Compensation procedure

107.醫療行爲二元屬性之困惑——以澳門終審法院第 23/2005 號上訴案的爭議爲視角

林位強

澳門科技大學　法學院

會議/刊物名稱：

湘潭大學學報（哲學社會科學版），第 35 卷，第 2 期，pp.22-25，2011 年 3 月，中文核心期刊要目總覽(2008)，CSSCI 檢索

內容簡介：

澳門法將公立醫療機構看成是公共行政實體，是公共福利機構；將公立醫院中的醫療行爲定性爲公法管理行爲，而把私立醫療機構中的醫療行爲定性爲私法管理行爲。因醫療行爲屬性的二元化，引發了不少司法上的爭議。若醫療行爲定性采一元化，法律適用可直接由民法典中的民事責任制度規范，不必通過 4 月 22 日第 28/91/M 號法令轉介，這樣，賠償標準更容易達到統一；而且法院、法官、法律適用三者之間的關系都理順了，司法判決也更爲公正。

關鍵詞：

醫療行爲、公共管理行爲、私法管理行爲、管轄權

107.Confusion about the Dual Attributes of Medical Behavior——A Perspective of the Disputes on Court of Final Appeal No.23/2005

Lin, WQ (LIN Wei-Qiang)

Faculty of Law, Macau University of Science and Technology

Name of Conference/Journal:

JOURNAL OF XIANGTAN UNIVERSITY(PHILOSOPHY AND SOCIAL SCIENCES), Volume 35, Issue 2, pp.22-25, MAR 2011, A Guide to the Core Journal of China (PKU), CSSCI indexed

Abstract:

The public medical institute is regarded as the subject of public administration, as well as the public welfare institution in Law of Macao. Then medical behavior in public hospital is characterized as public management behavior, while as private management behavior in private hospital. The dual attributes of medical behavior，has caused a number of judicial disputes. If the medical behavior becomes unitary, the application of law can be directly standardized by civil liability system in civil law without referring April 22 decree No.28／91／M. As a result, the more unified of the standard of compensations the more harmonious of the relationship among the court: the judge and the applicable objects of law, and the more impartial of judicial decisions will be.

Keywords:

Medical behavior; Public management behavior; Private management behavior; jurisdiction

108.制度政治學研究中的相關問題

嚴強

澳門科技大學　法學院

會議/刊物名稱：

閱江學刊，第 3 卷，第 1 期，pp.5-11，2011 年 2 月

內容簡介：

制度政治學以政治制度及其構成和運行爲研究對象.作爲超越現實人的具體經濟、文化和社會生活之上的、表現爲高尚的公共生活的政治生活是由微觀、中觀和宏觀三個層面構成的完整體系.處于中觀層面的、起著中介和聯結作用的政治制度則是其中不可或缺的部分.雖然政治制度是隱性的、不可觸摸的,但是,以政治組織爲載體的政治規則、規范、策略及其連鎖關系卻是引導和約束人們展開政治行動,影響和決定政治共同體生存、運行和發展的重要架構和資源.以嵌套的方式表現的、在不同層面上存在和發揮作用的規則--規范--策略及其連鎖關系,依其功能決定著政治體制,創造著促使政治體制運行的機制,并規定著政治行爲主體的行動.政治規則、規范、策略及其連鎖關系與外部環境中經濟、文化、民生社會因素的矛盾,政治規范、規則、策略內部的差異和矛盾,特別是有關政治人本性假定的改變,所有這些則是政治制度變遷的動力所在.

關鍵詞：

政治制度、政治組織、政治規則、政治制度演化

108.Related Issues of Study on Institutional Political Science

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Faculty of Law, Macau University of Science and Technology

Name of Conference/Journal:

YUEJIANG ACADEMIC JOURNAL, Volume 3, Issue 1, pp.5-11, FEB 2011

Abstract:

Research subject of institutional political science is the components and operation of political system. Political life that transcends specific economic, cultural and social life and represents the characteristics of noble public life is a complete system, consisting of microscopic, mesoscopic and macroscopic levels. At the meoscopic level, political system plays the role of medium and linkage, which is an indispensable part. Though political system is intangible, the political rules, norms, strategies and their relations can guide and constrain the political actions of people, and influence and determine the important structures and resources of the existence, operation and development of political community. Rules - specification - strategy and their relation that exist in different levels determines political system, create mechanism that promote the operation of political system and specifies the actions of political agents. The contradiction among political rules, norms, strategies and their relations and economic, cultural and livelihood factors of the external environment, the internal difference and contradiction of political rules, norms, and strategies, and the change of political assumption of human nature are the driving force for the changes of political system. Evolution of the political system including innovation of political system and change of political system is not arbitrary, of which the ways and path are affected and regulated by some certain factor.

Keywords:

Political system; Political organization; Political rules; Evolution of political system

109.局部粘著斑激酶作爲腫瘤治療靶點的研究進展

張文靜、黃啓來、華子春

澳門科技大學　中醫藥學院

會議/刊物名稱：

生命科學，第 23 卷，第 1 期，2011 年 1 月，中文核心期刊要目總覽(2008)

內容簡介：

局部粘著斑激酶(focal adhesion kinase, FAK)是一種非受體型酪氨酸蛋白激酶，是細胞內重要的骨架蛋白與多種信號通路的關鍵分子。FAK 在腫瘤發生、發展、遷移和侵襲的各個階段都具有重要作用，FAK 已經被當作潛在的腫瘤治療靶點來研究。該綜述將對 FAK 與腫瘤的關係以及 FAK 作爲腫瘤治療靶點的研究進展進行探討。

關鍵詞：

局部粘著斑激酶、抗腫瘤、治療

109.Focal Adhesion Kinase, a Novel Target for Cancer Therapy

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Name of Conference/Journal:

Chinese Bulletin of Life Sciences, Volume 23, Issue 1, Jan 2011, A Guide to the Core Journal of China (PKU)

Abstract:

Focal adhesion kinase (FAK), a cytoplasmic non-receptor protein tyrosine kinase, serves as both a molecular scaffold and a mediator participating in multiple signal transduction pathways. FAK is involved in tumor cell survival, proliferation, migration and metastasis. Currently, FAK has been regarded as a potential target for cancer therapy. This review is to summarize the relationship between FAK and tumor progression, and to discuss the strategies targeting FAK for cancer treatment.

Keywords:

Focal adhesion kinase, Antitumor, Treatment

110.支氣管熱成型治療中重度持續性哮喘患者的療效與安全性 Meta 分析

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會議/刊物名稱：

國際醫學研究雜誌，第 39 卷，第 1 期，pp.10-22，2011 年 1-2 月，SCI-E 檢索

內容簡介：

本 Meta 分析評估了支氣管熱成型這一新穎治療方法治療中重度持續性哮喘患者的療效與安全性。文獻檢索入選支氣管熱成型治療中重度持續性哮喘的隨機對照試驗 3 個，患者 421 人。評價指標包括 AQLQ 得分、PEF、耐受性和安全性。與標準藥物治療、僞支氣管熱成型術對照組相比較，支氣管熱成型顯著改善患者 AQLQ 得分和 PEF。在手術治療階段，支氣管熱成型組副反應及所致住院率高於對照組，但副反應大多在平均一周時間內消退，後期無增高。支氣管熱成型是否給中重度持續性哮喘患者帶來福音尚有待更多長期隨機對照試驗確認。

關鍵詞：

哮喘、Meta 分析、支氣管熱成型、療效、安全性

110.Meta-analysis of the Efficacy and Safety of Bronchial Thermoplasty in Patients with Moderate-to-severe Persistent Asthma

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Name of Conference/Journal:

The Journal of International Medical Research, Volume 39, Issue 1, pp.10-22, Jan-Feb 2011, SCI-E indexed

Abstract:

This meta-analysis assessed the efficacy and safety of a novel intervention for asthma, bronchial thermoplasty (BT), in patients with moderate-to-severe persistent asthma. An electronic search of the literature identified three randomized controlled trials (RCTs) of BT that recruited a total of 421 patients. The outcomes of interest were scores on the Asthma Quality of Life Questionnaire (AQLQ), morning peak expiratory flow (PEF), tolerability and safety. Compared with standard medications and sham BT treatment, BT significantly improved AQLQ scores and PEF from baseline to the end of the trials. There were more respiratory adverse events and hospitalizations for adverse respiratory events with BT than with medications or sham treatment during the treatment period, but most events resolved, on average, within a week. This effect of BT treatment was not seen during the post-treatment period. Additional long-term RCTs are required to confirm if BT provides benefit to patients with moderate-to-severe persistent asthma.

Keywords:

Asthma, Meta-analysis, Bronchial Thermoplasty, Treatment efficacy, Safety

111.麝香酮對心肌細胞缺血－再灌注損傷的保護作用

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會議/刊物名稱：

民族藥理學雜誌，第 138 卷，第 1 期，pp.34-39，2011 年 10 月，SCI-E 檢索

內容簡介：

民族藥理學相關性：麝香爲傳統中藥材，是治療胸痹心絞痛的很多處方中的主藥。

目的：研究麝香酮（麝香的主要活性成份）對體外原代培養大鼠心肌細胞缺血-再灌注（I/R）損傷的保護作用。

材料與方法：體外原代培養乳鼠心肌細胞，觀察麝香酮對心肌細胞 I/R 損傷的作用。測定細胞活性、乳酸脱氫酶、超氧化物歧化酶活性、丙二醛、肌酸激酶、caspase-3 活性及細胞內 Ca2+濃度；應用流式細胞術檢測細胞凋亡、線粒體膜電位；Western 印跡測定 Bck-2/Bax 蛋白表達。

結果：心肌細胞搏動頻率、細胞活性、超氧化物歧化酶活性、線粒體膜電位和 Bck-2 蛋白表達下降，而乳酸脱氫酶、丙二醛、肌酸激酶、caspase-3 活性、細胞內 Ca2+濃度、細胞凋亡率及 Bax 蛋白表達增高。麝香酮預處理（0.215, 0.43, 0.86 μg/mL）顯著減輕以上變化。結論：麝香酮對心肌 I/R 損傷具有保護作用，提示麝香酮可能通過抑制細胞氧化應激及細胞凋亡，對心肌 I/R 損傷具潛在治療效用。

關鍵詞：

心肌細胞保護、缺血-再灌注損傷、麝香酮

111.Protective effects of muscone on ischemia-reperfusion injury in cardiac myocytes

Wu, QB (Wu, Qibiao); Li, HT (Li, Haitao); Wu, Y (Wu, Ye); Shen, WX (Shen, Weixing); Zeng, L (Zeng, Li); Cheng, HB (Cheng, Haibo); He, L (He, Ling)

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Name of Conference/Journal:

JOURNAL OF ETHNOPHARMACOLOGY, Volume 138, Issue 1, pp.34-39, OCT 2011, SCI-E indexed

Abstract:

Ethnopharmacological relevance: Musk has been traditionally used in Chinese medicine as the main ingredient of many formulations for the treatment of chest pain and angina pectoris. Aim of the study: To investigate the protective effects of muscone (the active ingredient of musk) on ischemia-reperfusion (I/R) injury induced by hypoxia and low glucose in primary cultured rat cardiac myocytes. Materials and methods: Primary cultures of neonatal rat cardiac myocytes were subjected to ischemia-reperfusion in media, with or without muscone. Cell viability, release of lactic acid dehydrogenase (LDH), superoxide dismutase (SOD) activity, malondialdehyde (MDA) levels, creatine kinase (CK) and caspase-3 activities, as well as intracellular free Ca(2+) concentrations, were measured. Cellular apoptosis and mitochondrial membrane potential (MMP) were assessed by flow cytometry, and the expression of Bcl-2 and Bax proteins was assessed by Western blotting. Results: Following the exposure of cardiac myocytes to ischemia-reperfusion, there was a marked decrease in pulsating frequency, cell viability, SOD activity, MMP, and the expression of Bcl-2 protein, accompanied by increased LDH release, MDA production, CK and caspase-3 activities, intracellular free Ca(2+) concentrations, rate of apoptosis, and expression of Bax protein. Pretreatment with muscone (0.215, 0.43, 0.86 mu g/mL) prior to I/R injury significantly attenuated the above changes. Conclusion: Muscone has a protective effect against I/R injury in cardiac myocytes, indicating that muscone may potentially provide therapeutic benefit in I/R injury by inhibiting cellular oxidative stress and apoptosis. (C) 2011 Elsevier Ireland Ltd. All rights reserved.

Keywords:

Cardiac myocytes protective; lschemia-reperfusion injury; Muscone

112.人支氣管上皮細胞的體外培養

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會議/刊物名稱：

中國組織工程研究與臨床康復，第 15 卷，第 50 期，pp.9331-9334，2011 年 12 月，中文核心期刊要目總覽(2008)

內容簡介：

背景：人支氣管上皮細胞培養在呼吸系統疾病研究中應用越來越廣泛。

目的：探索美國典型培養物保藏中心人支氣管上皮細胞體外培養方法的可行性。

方法：對人支氣管上皮細胞培養條件進行反復摸索，最終確定應用含體積分數 20%胎牛血清的 DMEM/F12 培養基進行培養。

結果與結論：實驗培養的人支氣管上皮細胞扁平，呈多邊形，長滿後呈“鋪路石”樣分佈，經免疫組化檢測發現培養的細胞表達上皮細胞標誌物細胞角蛋白。在支氣管擴張症患者痰液上清刺激下，細胞表達的核因數?B、腫瘤壞死因數 a 和白細胞介素 8 明顯增強，證實培養的人支氣管上皮細胞獲得成功。提示不必拘泥於美國典型培養物保藏中心推薦的培養條件，改進的培養方法簡便易行，有應用價值。

關鍵詞：

人支氣管上皮細胞、體外培養、培養條件、細胞角蛋白、美國典型培養物保藏中心

112.Culture of human bronchial epithelial cells in vitro

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Name of Conference/Journal:

Journal of Clinical Rehabilitative Tissue Engineering Research, Volume 15, Issue 50, pp.9331-9334, DEC 2011, A Guide to the Core Journal of China (PKU)

Abstract:

BACKGROUND: Culture of human bronchial epithelial cells has been increasingly applied in the research of respiratorydiseases.

OBJECTIVE: To explore a feasible in vitro culture method for human bronchial epithelial cell line supplied by American TypeCulture Collection.

METHODS: Different culture conditions of human bronchial epithelial cells were tested with trials and errors. A feasible methodwith DMEM/F12 containing 20% fetal bovine serum was finalized.

RESULTS AND CONCLUSION: The cultured human bronchial epithelial cells were flat, polygonal, and displayed acobblestone-like distribution when overgrown. Immunohistochemical staining results showed an expression of epithelial markerkeratin in cultured cells. The expression of nuclear factor ?B, tumor necrosis factor a and interleukin 8 was increased significantly in cultured cells exposed to sputum supernatant from patients with bronchiectasis. These findings demonstrated that the cultured human bronchial epithelial cells were obtained successfully. Therefore, there is no need to stick to the culture condition recommended by American Type Culture Collection. The modified culture method is simple, feasible and valuable.

Keywords:

Human bronchial epithelial cell; In vitro culture; Culture condition; Keratin; American Type Culture Collection

113.中醫藥聯合骨髓間充質幹細胞對缺血性腦病研究的近況

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會議/刊物名稱：

中國結合醫學雜誌，第 17 卷，第 9 期，pp.715-720，2011 年 9 月，SCI-E 檢索

內容簡介：

目前許多學者嘗試把中醫藥與幹細胞研究相結合，從而探討這兩個具有龐大應用前景的課題。在中醫藥製劑聯合骨髓間充質幹細胞（BMSCs）的研究中，可見中藥具有促內源性幹細胞動員的作用，亦可誘導幹細胞在體外分化爲神經樣細胞，並促進幹細胞移植後的血管再生，改善神經功能。該文對骨髓間充質幹細胞的現代研究及其聯合中醫藥應用於缺血性腦病的研究近況作一綜述。

關鍵詞：

骨髓間充質幹細胞、中醫藥、腦缺血

113.Treatment of cerebral ischemia with combination of bone marrow-derived mesenchymal stem cells and Chinese medicine

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Name of Conference/Journal:

CHINESE JOURNAL OF INTEGRATIVE MEDICINE, Volume 17, Issue 9, pp.715-720, SEP 2011, SCI-E indexed

Abstract:

Many laboratories have been attempting to integrate Chinese medicine (CM) with the research of stem cells in order to explore this promising frontier. Studies on the combination of CM and bone marrow-derived mesenchymal stem cells (BMSCs) have found that some effective components from CM could activate endogenous stem cells and induce stem cells to differentiate into neural-like cells in vitro and promote angiogenesis. This review summarized the latest research findings of BMSCs and their application combined with CM in the treatment of cerebral ischemia.

Keywords:

Bone marrow-derived mesenchymal stem cells; Chinese medicine; Cerebral ischemia

114.PKC-beta 阻斷劑促進糖基化蛋白終末產物誘導的 HUVEC 凋亡

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會議/刊物名稱：

Pharmazie，第 66 卷，第 11 期，pp.81-887，2011 年 11 月，SCI-E 檢索

內容簡介：

業已證實，糖基化蛋白終末產物（AGEs）在血管的堆積是導致糖尿病發生髮展的一個重要誘因。文獻報導，AGEs 可促進人臍靜脈內皮細胞（HUVEC）凋亡，並且 PKC-beta 在 AGEs 誘發的血管功能障礙中起到了關鍵的作用。本文研究了 PKC-beta 的選擇性阻斷劑（LY333531）在 AGEs 誘發的 HUVECs 凋亡和增殖中的作用。內皮細胞經 AGEs 和 LY333531 孵育后採用 MTT 方法檢測細胞活性，採用吖啶橙/溴化乙啶（AO/EB）螢光染色方法觀察 AGEs 和 LY333531 對細胞的促凋亡作用，並進一步採用免疫細胞化學 SABC 方法檢測 Bcl-2、Bad 和 Bax 蛋白表達。結果發現，HUVEC 經 LY333531 預處理顯著降低了細胞存活率；與 AGEs 組對比，LY333531 顯著增加了細胞凋亡。阻斷 PKC-beta 上調 Bax、Bad 同時下調 Bcl-2 蛋白的表達。並且，LY333531 降低了 Bcl-2/Bax 比值。結果提示，選擇性 PKC-beta 阻斷劑 LY333531 可進一步促進 AGEs 誘發的內皮細胞凋亡。Bax、Bad 的表達增加以及 Bcl-2 的表達降低、Bcl-2/Bax 比值的下降與細胞凋亡有關。

關鍵詞：

糖基化蛋白終末產物、凋亡、Bad、Bax、Bcl-2、內皮細胞、PKC-beta

114.A PKC-beta inhibitor prompts the HUVECs apoptosis-induced by advanced glycation end products

Wang, SS (Wang Shan-shan); Xu, YH (Xu You-Hua); Feng, L (Feng Liang); Zhu, Q (Zhu Quan); He, B (He Bao)

Faculty of Chinese Medicine, Macau University of Science and Technology

Name of Conference/Journal:

PHARMAZIE, Volume 66, Issue 11, pp.881-887, NOV 2011, SCI-E indexed

Abstract:

The accumulation of advanced glycation end products (AGEs) on micro-vasculature has been demonstrated to be a key factor in diabetes mellitus development. Evidence suggests that AGEs triggered apoptotic changes in human umbilical vein endothelial cells (HUVECs) and protein kinase C (PKC)-beta plays a pivotal role in AGEs-induced micro-vascular dysfunction. Thus the effect of the selective PKC-beta inhibitor (LY333531) on AGEs-induced HUVEC apoptosis and proliferation was investigated. 3-(4,5-Dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT) was used to determine the cells viability after being incubated with AGEs and LY333531. Acridine orange/ethidium bromide (AO/EB) fluorescence detection was applied to observe the pro-apoptosis effects of AGEs and LY333531. Bcl-2, Bax and Bad proteins' expression were determined by StreptAvidin-Biotin-enzyme Complex (SABC) immunocytochenistry. The results showed that pretreatment with LY333531 strikingly decreased the chance of HUVEC survival and the effect of LY333531 on apoptotic cell death in HUVEC significantly increased compared with the AGEs group. Blockade of PKC-beta up-regulated the expression of Bax and Bad proteins and down- regulated the expression of Bcl-2 protein. Moreover, LY333531 reduced the ratio of Bcl-2/Bax. The results indicate that the selective PKC-beta inhibitor, LY333531, can further prompt AGEs-induced endothelial cells apoptosis. The increased expression of Bax, Bad and decreased expression of Bcl-2 and Bcl-2/Bax ratio are associated with the apoptotic process.

Keywords:

Advanced glycation end products; Apoptosis; Bad; Bax; Bcl-2; Endothelial cells; PKC-beta

115.植物雌激素 Calycosin-7-O-beta-D-Glucopyranoside 緩解糖基化蛋白終末產物誘導的 HUVEC 損傷

徐友華、封亮、王珊珊、朱荃、林靜、盧智鵬、項平、何寶、鄭兆廣、湯丹、左國營

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會議/刊物名稱：

細胞生物化學雜誌，第 112 卷，第 10 期，pp.2953-2965，2011 年 10 月，SCI-E 檢索

內容簡介：

血管病變包括內皮細胞凋亡和氧化應激是糖尿病患者高中風和心肌梗塞發病率的一個重要誘因。本研究旨在探討植物雌激素 Calycosin-7-O-beta-D-Glucopyranoside （CG）在糖基化蛋白終末產物誘導的 HUVEC 損傷中的作用。我們觀察發現，CG 可顯著緩解 AGEs 引起的 HUVEC 氧化應激和凋亡。CG 處理后，SOD/MDA 比例顯著增加至正常水平。通過免疫細胞化學檢測發現，CG 預處理顯著上調了抑凋亡蛋白 Bcl-2 并下調了促凋亡蛋白 Bax 和 Bad 的表達。更爲重要的是，CG 緩解了巨噬細胞向 HUVEC 的遷移和粘附；通過 ELISA 檢測發現，CG 顯著降低了培養上清中單核趨化蛋白-1 以及白介素-6 的含量；經免疫細胞化學以及實時定量 RT-PCR 檢測發現，CG 預處理顯著降低了炎症相關蛋白包括 ICAM-1、TGF-beta1 和 RAGE 的蛋白以及 mRNA 表達。細胞內檢測發現，CG 通過雌激素受體顯著逆轉了 AGEs 對 ERK1/2 和 NF-kappaB 的活化作用。我們研究結果強烈提示，CG 可通過緩解 AGEs 引起的細胞凋亡和炎症調節內皮細胞功能障礙。

關鍵詞：

凋亡、Calycosin-7-O-beta-D-Glucopyranoside、糖尿病、內皮細胞、炎症

115.Phytoestrogen Calycosin-7-O-beta-D-Glucopyranoside Ameliorates Advanced Glycation End Products-Induced HUVEC Damage

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Name of Conference/Journal:

JOURNAL OF CELLULAR BIOCHEMISTRY, Volume 112, Issue 10, pp.2953-2965, OCT 2011, SCI-E indexed

Abstract:

Vasculopathy including endothelial cell (EC) apoptosis and inflammation contributes to the high incidence of stroke and myocardial infarction in diabetic patients. The aim of the present study was to investigate the effect of calycosin-7-O-beta-D-glucopyranoside (CG), a phytoestrogen, on advanced glycation end products (AGEs)-induced HUVEC damage. We observed that CG can significantly ameliorate AGEs-induced HUVEC oxidative stress and apoptosis. The ratio of SOD/MDA was significantly increased to the normal level by CG pretreatment. CG preincubation dramatically increased anti-apoptotic Bcl-2 while decreased pro-apoptotic Bax and Bad expressions as detected by immunocytochemistry. Moreover, CG ameliorated macrophage migration and adhesion to HUVEC; the monocyte chemotactic protein-1 and interleukin-6 levels in the culture supernatant were dramatically reduced by CG as determined by ELISA; the expressions of inflammatory proteins including ICAM-1, TGF-beta 1, and RAGE in both protein and mRNA levels were significantly reduced to the normal level by CG pretreatment as determined by immunocytochemistry and real-time RT-PCR. The intracellular investigation suggests that CG can reverse AGEs-activated ERK1/2 and NF-kappa B phosphorylation, in which estrogen receptors were involved in. Our results strongly indicate that CG can modulate EC dysfunction by ameliorating AGEs-induced cell apoptosis and inflammation. J. Cell. Biochem. 112: 2953-2965, 2011. (C) 2011 Wiley-Liss, Inc.

Keywords:

Apoptosis; Calycosin-7-O-beta-D-Glucopyranoside; Diabetes; Endothelial cell; Inflammation

116.黃芪異黃酮成分對高糖誘導系膜細胞增殖和糖基化終末產物誘導內皮細胞凋亡的影響

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會議/刊物名稱：

藥用植物，第 77 卷，第 7 期，pp.729-732，2011 年 5 月，SCI-E 檢索

內容簡介：

目前公認黃芪對糖尿病腎病具有較好的防治作用。腎小球細胞在糖尿病血管併發症的發生發展過程中起著關鍵作用，然而，目前黃芪中的異黃酮類成分對腎小球細胞的作用還不清楚。因此，本文採用體外細胞模型研究了黃芪中的兩種主要異黃酮類成分毛蕊異黃酮和毛蕊異黃酮苷對高糖誘導系膜細胞增殖和糖基化終末產物誘導內皮細胞凋亡的影響。試驗結果表明，毛蕊異黃酮和毛蕊異黃酮苷在濃度爲 10-100uM 時均能顯著抑制系膜細胞的早期增殖，此外，在濃度爲 1-100uM 時也均能逆轉糖基化終末產物導致的內皮細胞凋亡。上述研究結果提示毛蕊異黃酮和毛蕊異黃酮苷對糖尿病腎病的發生發展均具有顯著的治療作用。

關鍵詞：

黃芪、毛蕊異黃酮、毛蕊異黃酮苷、系膜細胞、增殖、內皮細胞

116.Inhibitory Effects of Two Major Isoflavonoids in Radix Astragali on High Glucose-Induced Mesangial Cells Proliferation and AGEs-Induced Endothelial Cells Apoptosis

Tang, D (Tang Dan); He, B (He Bao); Zheng, ZG (Zheng Zhao-Guang); Wang, RS (Wang Ru-Shang); Gu, F (Gu Fei); Duan, TT (Duan Ting-Ting); Cheng, HQ (Cheng Hui-Quan); Zhu, Q (Zhu Quan)

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Name of Conference/Journal:

PLANTA MEDICA, Volume 77, Issue 7, pp.729-732, MAY 2011, SCI-E indexed

Abstract:

Radix Astragali, the dried roots of Astragalus membranaceus var. mongholicus, is well known to have a protective effect on diabetic nephropathy. However, the effects of isoflavonoids in Radix Astragali on glomerular cells, which play a key role in the development of diabetic vascular complications, remain largely unknown. Thus, the purpose of this study was to investigate in vitro the effect of calycosin and calycosin-7-O-beta-D-glucoside, two major isoflavonoids in Radix Astragali, on high glucose-induced rat mesangial cells proliferation and AGEs-induced human glomerular endothelial cell apoptosis. The results indicated that both calycosin and calycosin-7-O-beta-D-glucoside (10-100 mu M) could inhibit high glucose-induced mesangial cell early proliferation. Additionally, AGEs-mediated cell apoptosis was also attenuated by treatment of glomerular endothelial cells with either calycosin or calycosin-7-O-beta-D-glucoside (1-100 mu M). Therefore, the results obtained in this study suggest that both calycosin and calycosin-7-O-beta-D-glucoside have a significant therapeutic potential to modulate the development and/or progression of diabetic nephropathy.

Keywords:

Radix Astragali; Calycosin; Calycosin-7-O-beta-D-glucoside; Mesangial cells; Proliferation; glomerular endothelial cells

117.離體肺灌流提取與 HPLC-EST-MS(n)聯用技術預測中藥防風中的活性成分

鄭兆廣、王汝上、程慧荃、段婷婷、何寶、湯丹、顧斐、朱荃

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會議/刊物名稱：

藥物與生物醫學分析雜誌，第 54 卷，第 3 期，pp.614-618，2011 年 2 月，SCI-E 檢索

內容簡介：

利用離體肺灌流（IPL）提取與液相/串連質譜的聯用技術，一種預測傳統中藥中活性成分的新穎方法得到成功建立。這個方法建立的前提是當離體肺以防風提取液（ESR）灌流時，ESR 中可能的活性成分就會與肺上的受體或通道結合，當改變灌流液的 pH 時，結合的成分就會被解離洗脫下來，然後將解離液進行 HPLC-ESI-MS(n)檢測分析。 通過以上的方法成功地從肺解離液中檢測到 5 個化學成分，其中兩個的化學成分升麻素苷（2）和 5-O-甲基維斯阿米醇苷（4）通過對比其與對照品的色譜行爲鑒定，而其它化合物升麻素（1），5-O-甲基維斯阿米醇（3）和茅亥酚苷則通過檢測和分析其質譜裂解規律來確定。因此離體肺灌流提取與 HPLC-ESI-MS(n)的聯用技術是一種快速、方便，可操作性强、經濟和可靠的技術。

關鍵詞：

離體肺灌流、HPLC-ESI-MS、活性成分預測、防風

117.Isolated perfused lung extraction and HPLC-ESI-MS(n) analysis for predicting bioactive components of Saposhnikoviae Radix

Zheng, ZG (Zheng Zhao-Guang); Wang, RS (Wang Ru-Shang); Cheng, HQ (Cheng Hui-Quan); Duan, TT (Duan Ting-Ting); He, B (He Bao); Tang, D (Tang Dan); Gu, F (Gu Fei); Zhu, Q (Zhu Quan)

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Name of Conference/Journal:

JOURNAL OF PHARMACEUTICAL AND BIOMEDICAL ANALYSIS, Volume 54, Issue 3, pp.614-618, FEB 2011, SCI-E indexed

Abstract:

A novel strategy for predicting bioactive components in traditional Chinese material herb was proposed, using isolated perfused rat lung (IPL) extraction and high performance liquid chromatography\tandem mass spectrometry (HPLC-MS(n)) analysis. The hypothesis is that when the IPL is perfused with the extract of Saposhnikoviae Radix (ESR), the potential bioactive components in the ESR should selectively combine with the receptor or channel of lung, by changing the pH of perfused liquid, the combining components would be eluated and then detected by HPLC-ESI-MS(n). Five compounds were detected in the desorption eluate of IPL; among these compounds, two potential bioactive compounds, prim-O-glucosylcimifugin (2) and 4'-O-beta-D-glucosyl-5-O-methylvisamminol (4) were identified by comparing with the chromatography of the standard sample, and three other compounds, i.e. cimifugin (1), 5-O-methylvisamminol (3) and sec-O-glucosylhamaudol (5) were determined by analysis of the structure clearage characterization of mass spectrometry. The application of IPL extraction coupled with HPLC-ESI-MS(n) for predicting potential bioactive components of TCMs is rapid, convenient, operational, economic and reliable. (C) 2010 Elsevier B.V. All rights reserved.

Keywords:

Isolated perfused lung; HPLC-ESI-MS; Bioactive components predicting; Saposhnikocia divaricata

118.Calycosin 保護糖基化蛋白終末產物引起的巨石細胞浸潤在 HUVECs 浸潤

徐友華、封亮、王珊珊、朱荃、鄭兆廣、項平、何寶、湯丹

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中藥質量研究國家重點實驗室

會議/刊物名稱：

民族藥理學雜誌，第 137 卷，第 1 期，pp.359-370，2011 年 9 月，SCI-E 檢索

內容簡介：

民族藥理學相關性：中藥黃芪用於治療糖尿病以及糖尿病相關疾病已經有很長的歷史，但是它的活性成份以及相關的作用機制尚未得到良好闡明。研究目的：腎小球以及脈管系統白細胞粘附是糖尿病腎病的一個早期特徵。糖基化蛋白終末產物（AGEs）在糖尿病相關疾病發生髮展中起到了關鍵的作用。本研究旨在探索中藥黃芪活性成份 Calycosin 在 AGEs 誘導的 HUVEC 巨噬細胞浸潤中的作用。材料和方法：建立了 transwell HUVEC-巨噬細胞共培養體系以評估巨噬細胞遷移和粘附。採用免疫細胞化學方法檢測 TGF-beta1、ICAM-1 以及 RAGE 的蛋白表達，採用實時定量 RT-PCR 方法檢測 TGF-beta1、ICAM-1 以及 RAGE 的 mRNA 表達；採用免疫螢光方法觀察雌激素受體-alpha、ICAM-1 和 RAGE 的表達，以及 ERK1/2 和 NF-kappaB 的磷酸化情況。結果：Calycosin 顯著降低了 AGEs 引起的 HUVEC 巨噬細胞遷移和粘附。Calycosin 預處理顯著增加了雌激素受體的表達，並逆轉了 AGEs 引起的 HUVEC 細胞內 ERK1/2 和 NF-kappaB 的磷酸化和核轉位；Calycosin 的這種作用可被雌激素受體阻斷劑 ICI182780 所阻斷。結論：結果表明，Calycosin 可降低 AGEs 引起的巨噬細胞向內皮細胞的遷移和粘附，並緩解內皮細胞局部炎症；並且 Calycosin 這一作用是通過雌激素受體-ERK1/2-NF-kappaB 通路發揮作用的。

關鍵詞：

糖基化蛋白終末產物、黃芪、Calycosin、糖尿病、內皮細胞、炎症

118.Calycosin protects HUVECs from advanced glycation end products-induced macrophage infiltration

Xu, YH (Xu Youhua); Feng, L (Feng Liang); Wang, SS (Wang Shanshan); Zhu, Q (Zhu Quan); Zheng, ZG (Zheng Zhaoguang); Xiang, P (Xiang Ping); He, B (He Bao); Tang, D (Tang, Dan)

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Name of Conference/Journal:

JOURNAL OF ETHNOPHARMACOLOGY, Volume 137, Issue 1, pp.359-370, Sep 2011, SCI-E indexed

Abstract:

Ethnopharmacological relevance: Astragali radix is a traditional Chinese medicine that has long been used for treatment of diabetes and diabetes-associated disease, but its active component and mechanism on the disease is not well defined. Aim of the study: Infiltration of leukocytes within the glomeruli and vasculature is one of the early and characteristic features of diabetic nephropathy. Advanced glycation end products (AGEs) play pivotal role in the progression of diabetic-associated diseases. The present study was designed to explore the therapeutic effect of calycosin, an active component from A. radix, on AGEs-induced macrophages infiltration in HUVECs. Materials and methods: Transwell HUVEC-macrophage co-culture system was established to evaluate macrophage migration and adhesion. Immunocytochemistry was applied to examine TGF-beta1, ICAM-1 and RAGE protein expressions; real-time PCR was carried out to determine mRNA expression of TGF-beta1,ICAM-1 and RAGE. Immunofluorescence was carried out to observe estrogen receptor-alpha, ICAM-1, RAGE expression and the phosphorylation status of ERK1/2 and NF-kappa B. Results: Calycosin significantly reduced AGEs-induced macrophage migration and adhesion to HUVEC. Pre-treatment with calycosin strikingly down-regulated HUVEC TGF-beta1, ICAM-1 and RAGE expressions in both protein and mRNA levels. Furthermore, calycosin incubation significantly increased estrogen receptor expression and reversed AGEs-induced ERK1/2 and NF-kappa B phosphorylation and nuclear translocation in HUVEC, and this effect of calycosin could be inhibited by estrogen receptor inhibitor, ICI182780. Conclusions: These findings suggest that calycosin can reduce AGEs-induced macrophage migration and adhesion to endothelial cells and relieve the local inflammation; furthermore, this effect was via estrogen receptor-ERK1/2-NF-kappa B pathway. (C) 2011 Elsevier Ireland Ltd. All rights reserved.

Keywords:

Advanced glycation end product; Astragali radix; Calycosin; Diabetes; Endothelial cell; Inflammation

119.夏枯草中齊墩果酸通過調控 Bax, Bad 和 Bcl-2 表達誘導 SPC-A-1 細胞凋亡

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會議/刊物名稱：

亞太預防癌症雜誌，第 12 卷，第 2 期，pp.403-408，2011 年，SCI-E 檢索

內容簡介：

夏枯草一味常用於腫瘤的化學預防的中藥。在本研究中，從夏枯草乙醇提取物中分離其主要活性化合物齊墩果酸，並以高效液相色譜(HPLC)，高效薄層色譜法和液相色譜及質譜法(LC-MS)確定其化學結構。採用 MTT 法評估夏枯草及其主要成分齊墩果酸對人肺腺癌 SPC-A-1 細胞的增殖抑制活性。檢測結果顯示，齊墩果酸和夏枯草提取物對 SPC-A-1 細胞的增殖抑制沒有顯著的差異；齊墩果酸與提取物的抑制率曲線一致。吖啶橙-溴化乙錠(AO/EB)螢光檢測顯示，8 和 16 μM 齊墩果酸組較正常組能顯著增加細胞凋亡率，誘導 SPC-A-1 細胞凋亡($P < 0.05$)。此外，採用免疫細胞化學檢測評估齊墩果酸對凋亡蛋白的調控作用，結果顯示齊墩果酸能顯著增加 Bax 和 Bad 蛋白表達，而降低 Bcl-2 的表達；而且齊墩果酸能顯著增加增加 Bax/Bcl-2 的比值。結果表明齊墩果酸能通過下調 Bcl-2 表達，上調 Bax 和 Bad 的表達，誘導肺腺癌 SPC-A-1 細胞凋亡。

關鍵詞：

夏枯草、齊墩果酸、細胞凋亡、人肺腺癌細胞、Bcl-2 家族蛋白

119.Oleanolic Acid from Prunella Vulgaris L. Induces SPC-A-1 Cell Line Apoptosis Via Regulation of Bax, Bad and Bcl-2 Expression

Feng, L (Feng, Liang); Au-yeung, W (Au-yeung Wai); Xu, YH (Xu You-Hua); Wang, SS (Wang Shan-Shan); Zhu, Q (Zhu Quan); Xiang, P (Xiang Ping)

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Name of Conference/Journal:

ASIAN PACIFIC JOURNAL OF CANCER PREVENTION, Volume 12, Issue 2, pp.403-408, 2011, SCI-E indexed

Abstract:

Prunella vulgaris L. (PV) has been used as a herb for chemoprevention of lung cancer. In this study, the main active compound, oleanolic acid (OA) was isolated from an ethanol extract and its chemical structure was identified according to the results of high performance liquid chromatography (HPLC), high performance thin layer chromatography (HPTLC) and liquid chromatography-mass spectrography (LC-MS). Results for cell viability indictated no notable differences between OA and ethanol extract of PV in lung adenocarcinoma SPC-A-1 cells measured by MTT assay. Consistent concentration-response curves. Fluorescence detection with acridine orange-ethidium bromide was used to evaluate apoptosis of SPC-A-1 cells. OA at 16 and 8 mu M group increased significantly the apoptosis rate compared with normal and 1% DMSO groups ($p <= 0.05$). In addition, immunocytochemistry assays showed increase in Bax and Bad protein expression while Bcl-2 decreased. Moreover, the ratio of Bax/Bcl-2 was heightened by OA treatment. The results suggest OA induced apoptosis of lung adenocarcinoma cells through down-regulating Bcl-2 expression, and up-regulating Bax and Bad expression.

Keywords:

Prunella vulgaris L.; Oleanolic acid; Apoptosis; Lung adenocarcinoma cells; Bcl-2 family proteins

120.桑白皮化學成分的研究

鄭兆廣、王汝上、湯丹、何寶、顧斐、段婷婷、朱荃

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會議/刊物名稱：

天然產物研究與開發，第 23 卷，第 3 期，pp.399-400 及 403，2011 年

內容簡介：

從桑白皮(Cortex Mori)的水提液中分離得到 5 個化學成分，通過波譜資料結合理化性質分別鑒定爲 4,4'-二苯甲烷二氨基甲酸甲酯(4,4'-diphenylmethane-bis(methyl)carbamates,1)，東莨菪內酯(seopolerin,2)，傘形花內酯(umbelliferone,3)，3,4,5-三甲氧基苯酚(3,4,5-trimethoxyphenol,4)，對羥基苯甲酸乙酯(4-ydroxy ethylbenzoate,5)。其中，化合物 1 爲新的天然化合物，4 和 5 爲首次從該植物中分得。

關鍵詞：

桑白皮、二苯甲烷二氨基甲酸甲酯、東莨菪內酯、傘形花內酯、3，4，5-三甲氧基苯酚、對羥基苯甲酸乙酯

120.Chemical Constituents of Cortex Mori

Zheng, ZG (Zheng Zhao-guan); Wang, RS (Wang Ru-shang); Tang, D (Tang Dan); He, B (He Bao); Gu, F (Gu Fei); Duan, TT (Duan Ting-ting); Zhu, Q (Zhu Quan)

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Name of Conference/Journal:

Journal of Natural Product Research and Development, Volume.23, Issue 3 , pp. 399-400,403, 2011

Abstract:

Five compounds were isolated from the water extract of Cortex Moil, on the basis of spectroscopic analysis and physico-chemical property. they were identified as 4,4'-diphenylmethane-bis (methyl) carbamates (1).seopoletin (2).umbelliferone (3).3,4,5-trimethoxyphenol (4).and 4-hydroxy ethylbenzoate (5).Compound 1 Was a new natural eompound and compounds 4 and 5 were isolated from this plant for the first time.

Keywords:

Cortex Mori; 4,4'-diphenylmethane-bis (methyl) earbamates; scopoletin; umbelliferone; 3,4,5-trimethoxy-phenol; 4-hydroxy ethylbenzoate

121.大黃和尿毒清對大鼠腎組織抗氧化應激作用的比較研究

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會議/刊物名稱：

內科，第 6 卷，第 5 期，pp.402-405，2011 年

內容簡介：

目的 探討單味中藥大黃和複方中藥尿毒清對大鼠腎勻漿抗氧化應激作用的影響，並比較其效果，闡明中藥抗氧化應激在治療腎臟病中的作用。方法 實驗分組：空白組，模型組，維生素 E 組(陽性藥物組)，尿毒清組，大黃組(高、中、低三個濃度)，去大黃的尿毒清組(高、中、低三個濃度)通過腎勻漿的自發脂質過氧化實驗和 Fe^{2+} -H_2O_2 誘導脂質過氧化實驗，用硫代巴比妥酸(TBA)法測定各組在吸光度 530nm 的 OD 值，計算脂質過氧化產物丙二醛(MDA)的抑制率。結果 (1)尿毒清組 OD 值明顯低於模型組，對腎勻漿自發性脂質過氧化的抑制率爲 61.56%，對腎勻漿 Fe^{2+} -H_2O_2 誘導氧化的抑制率爲 57.43%，結果比較，差異有統計學意義($P<0.05$)；各濃度大黃和去大黃尿毒清 OD 值均低於模型組，抑制率均高於模型組，隨濃度降低呈量效關係，結果比較，差異有統計學意義($P<0.05$)。(2)終質量濃度爲 0.65 ms/mL 的尿毒清組、大黃組、去大黃尿毒清組與 VitE 組比較，尿毒清組、去大黃尿毒清組 OD 值低於 VitE 組，抑制率高於 VitE 組，結果比較，差異有統計學意義($P<0.01$)；VitE 組 OD 值低於大黃組，抑制率高於大黃組，結果比較，差異有統計學意義($P<0.01$)。(3)同濃度的尿毒清、大黃和去大黃尿毒清比較，尿毒清組 OD 值均低於大黃組和去大黃尿毒清組，尿毒清組對腎勻漿自發氧化和 Fe^{2+} -H_2O_2 誘導氧化的抑制率均高於大黃組和去大黃尿毒清組，結果比較，差異有統計學意義。結論 (1)大黃及尿毒清可抑制大鼠腎勻漿脂質過氧化產物 MDA 的產生，具有明顯的抗氧化應激作用。(2)複方中藥尿毒清抗氧化應激作用效果優於單味中藥大黃。(3)大黃浸膏和去大黃尿毒清高、中、低濃度組間抗氧化應激作用呈明顯的量效關係。

關鍵詞：

氧化應激、大黃、腎臟病、尿毒清

121.The study of anti-oxidative stress effect of rhubarb and niaoduqing on rats kidney

Hang, XJ (Hang Xiao-jing); Liao, YH (Liao Yun-hua); Zhu, Q (Zhu Quan); He, B (HE Bao)

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Name of Conference/Journal:

Journal of Chinese Medical Digest Internal Medicine, Volume 6, Issue 5, pp.402-405, 2011

Abstract:

Objective To explore the influences of rhubarb and Niaoduqing on anti-oxidative stress effects of kidney of rats and compare their effects, which further clarify the effect of using Chinese medicine on treating and preventing anti-oxidative stress of kidney disease. Methods Experimental grouping: normal group, control group, positive drug group, Niacduqing group, rhubarb groups of hish, medium and low concentrations, Niaoduqing control groups (without rhubarb) of high, medium and low concentrations. Through Spontaneous lipid peroxidation and Fe^{2+} - H_2O_2 induced lipid perexidation experiments of kidney homogenate, using thiobarbituric acid (TBA) method to determinate the absorbance values of each group at OD 530nm. Calculating the inhibition of lipid peroxidation MDA. Result (1) The OD value of Niaoduqing group was significantly lower than modeling group. The inhibitory rate of the spontaneous lipid peroxidntion of kidney homogenate Was 61.56% and the inhibitory rate of Fe^{2+}-H_2O_2 induced lipid peroxidation of kidney homogenate was 57.43%. The results showed significantly different ($P<0.05$). The OD values of rhubarb groups and Niaoduqing control groups were lower than modeling group. Concentration and lipid peroxidation products MDA formation was negative. Concentration effect of oxidative stress between the groups showed a dose-effect relationship. the results were significantly different ($P<0.05$). (2) Compared final concentrations of 0.65mg/mL of Niaoduqing group, rhubarb group and Niaodnqing control groups with VitE group, the OD value of Niaoduqing group and Niacdnqing control groups were lower than VitE group, the inhibitory rates were higher than VitE group. The results showed significantly different ($P<0.01$). The OD value of VitE group was lower than rhubarb groups, and the inhibitory rate was higher than rhubarb group. The results showed significantly different ($P<0.01$). (3) Compared of Niaoduqing, rhubarb and Niaeduqing control groups, the OD values of Niaoduqing group were lower than rhubarb groups and Niaoduqing control groups with the same concertration. Compared of the inhibitory rates of spontaneous lipid peroxidation and Fe^{2+}-H_2O_2 induced lipid peroxidation of kidney homogenate, Niaoduqing group was higher than rhubarb groups and Niaeduqing control groups. The results were significantly different. Conclusion Rhubarb and Niaeduqing have significant inhibition on the producing of MDA induced by peroxidation of rat kidney. The results also proved that the compound Chinese herbal Niaoduqing has better therapeutic effects than single Chinese herbal rhubarb on anti-oxidative stress. Concentration effect of oxidative stress between the groups of rhubarb and Niaeduqing control groups (without mubnrb)

showed a dose-effect relationship.

Keywords:

Rhubarb; Niaoduqing; Kidney disease; Oxidative stress

122.星形膠質細胞功能異常誘發癲癇機制的研究進展

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會議/刊物名稱：

中國藥理學通報，第 27 卷，第 6 期，pp.752-755，2011 年 6 月，中文核心期刊要目總覽(2008)

內容簡介：

癲癇是一種由於大腦神經元異常同步放電引起的腦功能障礙綜合征，發病機制迄今尚未完全闡明。近年來越來越多的實驗與臨床研究顯示，星形膠質細胞在癲癇的病理過程中起到了重要作用，有可能成爲藥物干預癲癇的新靶點。該文綜述了星形膠質細胞由於功能以及與神經元之間信號調控異常從而誘發癲癇的分子機制的研究進展。

關鍵詞：

癲癇、海馬硬化、星形膠質細胞、功能異常、鉀離子通道、谷氨酸、縫隙連接

122.Progress on molecular basis of astrocyte dysfunction in epilepsy pathogenesis

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Faculty of Chinese Medicine, Macau University of Science and Technology

Name of Conference/Journal:

Chinese Pharmacological Bulletin, Volume 27, Issue 6, pp.752-755, JUN 2011, A Guide to the Core Journal of China (PKU)

Abstract:

Epilepsy is defined as a cerebral disorder induced by abnormal synchronous discharge of neurons. The physiopathological basis controlling this neurological disease has not been fully understood. More recently, increasing evidence has suggested a critical role of astrocyte dysfunction in epilepsy pathogenesis.

Astrocytes are emerging as a potential target for pharmacological intervention of epilepsy. This review focuses on the mechanisms underlying the cellular and molecular abnormalities of astrocytes that are currently thought to be associated with human or experimental epilepsy.

Keywords:

Epilepsy; Hippocampal sclerosis; Astrocytes; Dysfunction; Potassium channels; Glutamate; Gap junction

123.板藍根抗甲 1 型流感病毒活性物質的初篩研究

王玉濤、楊子峰、招穗珊、秦笙、關文達、黃群娣、趙韻詩、林青、莫自耀

澳門科技大學　中醫藥學院

會議/刊物名稱：

廣州中醫藥大學學報，第 28 卷，第 4 期，2011 年

內容簡介：

[目的] 觀察不同提取工藝及方法制備的板藍根樣品的抗流感病毒作用，以篩選板藍根中抗流感病毒的有效成分及活性物質。[方法] 於狗腎細胞(MDCK)上接種人甲 1 型流感病毒 PR8 株(A/PR/8/34,H1N1)，採用細胞病變抑制法(CPE 法),在不同試驗策略下(保護、治療模式)評價不同提取工藝及方法制備的板藍根樣品的體外抗流感病毒作用。[結果] 在無毒濃度下，從不同工藝制備的板藍根樣品中篩選到 1 份有抗流感病毒活性的成分，該成分爲醇溶液通過大孔樹脂用純水洗脫的洗脫液(S-03)，其體外抗病毒選擇指數爲 4.8。[結論] 發現板藍根樣品中抗流感病毒作用較爲明確的成分。

關鍵詞：

板藍根/藥理學、板藍根/化學、流行性感冒/中藥療法、流感病毒、細胞培養

123.Screening of Anti-H1 N1 Active Constituents from Radix Isatidis

Wang, YT (Wang Yutao); Yang, ZF (Yang Zifeng); Zhao, SS (Zhao Suishan); Qin, S (Qin Sheng); Guan, WD (Guan Wenda)

Faculty of Chinese Medicine, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Guangzhou University of Traditional Chinese Medicine, Volume 28, Issue 4, 2011

Abstract:

Objective: The anti-influenza activity of Radix Isatidis extracts processed by different extractions was observed for the screening of anti-influenza active constituents. Methods: Madin-Darby canine kidney cell line was inoculated with influenza virus type 1 PR8 strain (A/PR/8/34, H1N1). The anti-influenza activity of Radix Isatidis extracts processed by different extractions was evaluated according to cytopathic effect (CPE). Results: At non-toxic concentration, one antiviral active constituent (S-03) was obtained from different extractives of Radix Isatidis.S-03 was the eluant eluted with pure water through the macroporous resin column,and its anti-viral selective index (SI) was 4.8 in vitro. Conclusion: One antiviral constituent has been found in Radix Isatidis extracts

Keywords:

RADIX ISATIDIS/pharmacology; RADIX ISATIDIS/chemistry; INFLUENZA/TCD therapy; INFLUENZA VIRUS; CELL CULTURE

124.應用單一和雙重熒光定量 PCR 法快速檢測軍團菌

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會議/刊物名稱：

中華生物醫學工程雜誌，第 17 卷，第 1 期，pp.61-65，2011 年 2 月

內容簡介：

目的：建立單一和雙重熒光定量 PCR 方法分別和同時進行軍團菌屬及嗜肺軍團菌的檢測。方法：利用軍團菌屬 16 S rRNA 基因和嗜肺軍團菌 mip 基因設計引物和探針，兩條基因探針分別標記 FAM 和 HEX，並將相關反應體系和條件進行優化。分別應用單一基因探針(單一熒光定量 PCR)和雙重基因探針(雙重熒光定量 PCR)對嗜肺軍團菌、非嗜肺軍團菌及非軍團菌進行檢測，並驗證兩種方法的特異度、敏感度。應用雙重熒光定量 PCR 檢測空調水樣濾膜樣品和 DNA 提取樣品，比較兩者結果的一致性。結果：針對軍團菌屬及嗜肺軍團菌,應用熒光定量 PCR，16 S rRNA 基因和 mip 基因均能較好的檢出，16S rRNA 和 mip 的最低檢出限分別爲 8 和 10 個拷貝。經優化得到了最佳反應體系。單一熒光定量 PCR 方法所檢的 8 株嗜肺軍用菌及 4 株非嗜肺軍團菌 16 S rRNA 基因均爲陽性，嗜肺軍團菌 mip 基因陽性，非嗜肺軍團菌 mip 基因陰性。雙重熒光定量 PCR 方法所檢的 23 株嗜肺軍團菌中有 2 株爲假陰性，9 株非嗜肺軍團菌和非軍團菌屬中有 1 株爲假陽性。49 份空調水樣濾膜直接檢測和提取 DNA 後檢測的結果一致，其中 26 份水樣軍團菌陽性，20 份爲嗜肺軍團菌，6 份爲非嗜肺軍團菌；1 份弗朗西斯菌檢測 HEX 陽性(假陽性)，佔實際培養分離的 1/26。結論：單一及雙重熒光定量 PCR 法特異、快速、敏感，一次同時檢測嗜肺與非嗜肺軍團菌，滿足對空調和環境水樣軍團菌監測的要求。

關鍵詞：

聚合酶鏈反應、熒光、軍團菌、16 S rRNA 基因、mip 基因

124.Single and duplex fluorescence quantitative PCR for rapid detection of Legionella

Mo, ZY (Mo Zi-yao); Qin, JQ (Qin Jian-qiang); Zhao, HB (ZHAO Hong-bo); Guan, WD (Guan Wen-da); Qin, S (Qin Sheng); Wang YT (Wang Yu-tao); Yang, ZF (Yang Zi-feng)

Faculty of Chinese Medicine, Macau University of Science and Technology

Name of Conference/Journal:

Chienese Journal of Biomedical Engineering, Volume 17, Issue 1, pp.61-65, FEB 2011, A Guide to the Core Journal of China (PKU)

Abstract:

Objective: To develop the single and duplex fluorescence quantitative PCR for detection of Legionella and Legionella pneumophila respectively. Methods: Specific primers and probes were designed according to the 16 S rRNA gene of Legionella and mip gene of Legionella pneumophila. The probes were labeled with reporter genes，FAM (for 16 S rRNA) and HEX (for mip gene) respectively. Moreover, the reaction systems and conditions for PCR were optimized. Then the single gene probe (single fluorescence quantitative PCR) and duplex gene probe (duplex fluorescence quantitative PCR) were used to detect the pneumophila and non-Legionella pneumophila strains, as well as other non-Legionella, in order to validate the specificity and sensitivity of these two methods. In addition, duplex fluorescence quantitative PCR was employed to detect Legionella on filtering membrane and extracted Legionella DNA in water samples from air-conditioners, to compare the consistency between the both. Results The 16 S rRNA genes of Legionella and mip genes of Legionella pneumophila were well detected with fluorescence quantitative PCR, with the lowest detectable templates being 8 and 10 copies respectively. An ideal reaction system after optimization of conditions was established successfully. Single fluorescence quantitative PCR demonstrated positive expression of 16 S rRNA gene in all of 8 Legionella pneumophila and 4 non-Legionella pneumophila strains, and positive expression of mip gene in Legionella pneumophila but not in non-Legionella pneumophila strain. Duplex fluorescence quantitative PCR demonstrated 2 false negative strains among 23 Legionella pneumophila strains and 1 false positive strain among 9 non-Legionella pneumophila and non·Legionella strains. The results of DNA detection were consistent between 49 filtering membranes and extracted DNA in water samples from air-conditioners. There were 26 water samples tested positive for Legionella, including 20 for Legionella pneumophila and 6 for non-Legionella pneumophila strains. One Francisella strain was found to be HEX-positive (false positive), accounting for 1126 of the cultures actually isolated. Conclusions: The single and duplex fluorescence quantitative PCR are specific, rapid and sensitive methods that detect pneumophila and non·Legionella pneumophila strains at the same time. These tests may meet the need to detect Legionella in water samples from air-conditioners or natural environment.

Keywords:

Polymerase chain reaction; Fluorescence; Legionella; 16 S rRNA gene; Mip gene

125.白藜蘆醇抗柯薩奇病毒作用機理研究

葉勁松、關文達、招穗珊、楊子峰、王玉濤、秦笙、伍時冠、潘思華、占揚清、謝慧霹

澳門科技大學　中醫藥學院

會議/刊物名稱：

廣東農業科學，第 17 卷，第 14 期，pp.113-115，2011 年，中文核心期刊要目總覽(2008)

內容簡介：

在非洲綠猴腎細胞 (Vero E6) 上接種柯薩奇 B2 病毒，採用細胞病變抑制法 (Cytopathic effect inhibition Assay) 和四甲基偶氮唑藍 (MTT) 法，在預防、治療和直接作用 3 種試驗模式下探討白藜蘆醇體外對柯薩奇病毒的抑制作用。白藜蘆醇體外抗病毒藥效顯示：(1)預防模式對柯薩奇病毒無抑制作用；(2)治療和直接作用模式對柯薩奇病毒均有一定程度的抑制作用，且治療模式(抑制率爲 71.5%)效果優於直接作用(抑制率爲 41.5%)。說明白藜蘆醇對柯薩奇病毒具有體外抑制作用，其可能通過多個途徑抑制病毒在宿主細胞內的複製。

關鍵詞：

白藜蘆醇、柯薩奇病毒、作用機理

125.Study on mechanism of antiviral effect of resveratrol against coxsackie virus in vitro

Ye, JS (Ye Jin-song); Guan, WD (Guan Wen-da); Zhao, SS (Zhao Sui-shan); Yang, ZF (Yang Zi-fen); Wang, YT (Wang Yu-tao); Qin, S (Qin Sheng); Wu, SG (Wu Shi-guan); Pan, SH (Pan Si-hua); Zhan, YQ (Zhan Yang-qing); Xie, HJ (Xie Hui-jun)

Faculty of Chinese Medicine, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Guangdong Agricultural Sciences, Volume 38, Issue 14, pp.113-115, 2011, A Guide to the Core Journal of China (PKU)

Abstract:

Different concentration of resveratrol was added at different time points (therapy pattern, protection pattern and direct effect patteml when Vero E6 cell Was infected with Coxsackie virus B2, and the antiviral effect of resveratrol was confirmed by eytopathie effect reduction assay and MTT assay. The antiviral effects in vitro showed that the resveratrol had no effect on viruses if the drug was used before virus adsorption, but resveratrol showed that obvious activities against coxsackie viruses if treatment after viIns adsorption finhibition ratio ranged from 19.3% to 71.5%) or direct reaction of drug and virus before virus adsorption(inhibition ratio ranged from 27.7v to 41.5v). The antiviral effects of resveratrol on coxsackie virus in vitro might be through muhitarget to prevent infection.

Keywords:

Resveratrol; Coxsackie virus; Mechanism

126.銀翹散對感染甲 1 型流感病毒金剛烷胺耐藥株小鼠的抗病毒研究

關文達、楊子峰、謝慧琚、趙瑾、王玉濤、秦笙、招穗珊、伍時冠、潘思華、陳俏妍

澳門科技大學　中醫藥學院

會議/刊物名稱：

廣東農業科學，第 38 卷，第 13 期，pp.135-137，2011 年，中文核心期刊要目總覽(2008)

內容簡介：

以經過耐藥表型和基岡型鑒定的甲 l 型流感病毒金剛烷胺耐藥株感染 BALB/c 小鼠，觀察其生存狀態並測定肺指數。以蘇木素--伊紅染色(HE 染色)法觀察肺組織病理改變；將鼠肺懸液以空斑試驗定量檢測感染性病毒滴度。研究結果表明，銀翹散可以減輕甲 l 型流感耐藥株感染小鼠引起的全身症狀，降低肺指數；減少鼠肺病變範圍及肺泡滲出物；降低鼠肺病毒滴度。說明銀翹散有體內抑制甲 l 型流感病毒金剛烷胺耐藥株複製的作用。

關鍵詞：

銀翹散、流感病毒、體內、耐藥

126.Experimental study on the action of Lonicerae and Forsythiae powder against amantadine-resistant influenza A virus (H1N1) in vivo

Guan, WD (Guan Wen-da); Yang, ZF (YANG Zi-feng); Xie, HJ (Xie Hui-jun); Zhao, J (Zhao Jin); Wang, YT (Wang Yu-tao); Qin, S (Qin Sheng); Zhao, SS (Zhao Sui-shan); Wu, SG (Wu Shi-guan); Pan, SH (Pan Si-hua); Chen, QY (Chen Qiao-yan)

Faculty of Chinese Medicine, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Guangdong Agricultural Sciences, Volume 38, Issue 13, pp.135-137, 2011, A Guide to the Core Journal of China (PKU)

Abstract:

The antiviral effects of Lonicerac and Forsythiae Powder were observed in vivo, and the impacts on living states, lung index, virus titer of lungs, pathological changes of lungs were observed in the mice infected with amantadine- resistant influenza a virus. The results showed that Lonicerae and Forsythiae Powder significantly inhibited the 1ung consolidation of mice pneumonia caused by the infection of influenza virus and replication of the infectious viral particles in lungs at the concentration. No significant antiviral effect of Lonicerne and Forsythiae Powder at the concentration of inhibiting amantadine- resistant influenza a virub was observed. It was concluded that Lonicerae and Forsythiae Powder was effective in inhibiting anti-amantadine-resistant influenza virus A(HlN1) in vivo.

Keywords:

Lonicerae and Forsythiae Powder; Influenza avirus; In vivo; Drug resistance

127.澳門地區公共場所軍團菌的檢出和脂肪酸分型研究

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澳門科技大學　中醫藥學院

會議/刊物名稱：

澳門科技大學學報，第 5 卷，第 1 期，pp.8-15，2011 年 6 月

內容簡介：

背景：軍團菌引發軍團菌病和 Pontiac 熱，但有關澳門地區公共場所軍團菌的檢出和分佈鮮見報道。

目的：對澳門地區公共場所的軍團菌（又名退伍軍人菌）進行檢測和分型研究。

方法：將水樣處理後進行分離培養和血清學鑒定，並利用螢光定量 PCR 及 LAMP(環介導等溫擴增)方法進行快速檢測，同時用脂肪酸分型對所分離的菌株進行鑒定和同源性分析。

結果：43 份水樣中有 25 份軍團菌陽性，陽性率爲 58.1%。分屬 8 種軍團菌，半數以上爲嗜肺軍團菌。多個樣品中可同時分離出不同軍團菌，兩種快速檢測方法與傳統方法鑒定結果相符。嗜肺軍團菌 A 群在澳門三個區內均有分佈，B 群主要分佈在澳門半島和氹仔，C 群則主要分佈於澳門半島；其他非嗜肺軍團菌株大多集中分佈在地理位置較近的區域。

結論：澳門地區公共場所軍團菌陽性檢出率較高，基本以均勻分散的形式分佈。

關鍵詞：

軍團菌、澳門、快速檢測、脂肪酸分型

127.Detection and Fatty Acid Analysis of Public sites Legionella Isolated from Macau

Zhao, HB (Zhao Hongbo); Guan, WD (GuanWenda); Yang, ZF (Yang Zifeng); Lu, X (Lu Xi); Shi, L (Shi Lei); Choi, F (Choi Fei); Mo, ZY (Mo Ziyao)

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Name of Conference/Journal:

Journal of Macau University of Science and Technology, Volume 5, Issue 1, pp.8-15, JUN 2011

Abstract:

Background: Legionella pneumophila is the agent of Legionnaires' disease and Pontiac fever, but little is known about its detection and distribution in the public areas of Macau.

Objectives: To detect and to categorize Legionella in environmental water isolated from the pubic area of Macau. Method: Water samples filtered were cultured and serotyped, while the real-time PCR assay and LAMP (loop-mediated isothermal amplification) were applied to detect Legionella rapidly, and fatty acid analysis was also used to identify and cluster the Legionella strains.

Results: There were 25 of 43 water samples detected with Legionella, which belonged to eight kinds of Legionella, and the positive rate was 58.1%. Half of them were Legionella pneumophila. Different Legionella strains could be found in one water sample. Both real-time PCR and LAMP obtained almost the same positive results compared with that of the traditional cultivation. Legionella pneumophila cluster A were scattered in three regions of Macau, cluster B were mainly distributed in Macau peninsula and Tampa, and cluster C mainly distributed in Macau peninsula. The rest of other non-Legionella pneumophila were distributed in regions close to each other.

Conclusion: The positive rate of Legionella in Macau pubic sites is higher than that of other areas, results from fatty acid analysis indicates that Legionella spreaded well all over Macau.

Keywords:

HCCA; QoS; Equal-SP; Bandwidth utilization IEEE

128.自然醫學與亞健康

項平

澳門科技大學　中醫藥學院

會議/刊物名稱：

首屆國際自然醫學學術研討會，pp.131-134，2011 年

內容簡介：

自然醫學主要使用非化學合成藥物、非手術醫療方法，主要依靠用天然藥物和多種非藥物療法來防治疾病，主張歸真返樸，順乎自然，強調利用自然環境、自然界本身存在的物質來防治疾病，或動員人體自身的能力使身體保持或恢復健康。自然療法在理論層次上從屬於自然醫學的範疇。本文利用亞健康調查問卷，在澳門、安徽、山東三地對快節奏人群進行了亞健康狀態流行病學調查，共調查 5000 人，取得有效問卷 3324 份。快節奏人群亞健康狀態的表現主要歸納爲 4 類，即慢性疲勞型、胃腸功能不良型、焦慮失眠型、肺虛乾咳型，表現爲一定時間內的活力降低、多種功能和適應能力不同程度地減退。總結了中醫藥在亞健康狀態人群干預中要重視“春夏養陽、秋冬養陰、少年益。腎、中年調肝、老年健脾”的治療原則。

關鍵詞：

自然療法、亞健康

128.Natural Medicine and Sub-Health

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Faculty of Chinese Medicine, Macau University of Science and Technology

Name of Conference/Journal:

The 1st World Natural Medicine Conference, pp.131-134, 2011

Abstract:

The term "natural medicine" mainly applies to non-chcmosynthetic medicine and non-surgical medical treatment, namely, using natural drug and non-drug therapy to prevent and treat diseases. Upholding the motto "simple and natural," natural medicine emphasizes prevention and treatment of diseases with natural environment and naturally-existed material; or maintaining and recovering health by activating human body capabilities. Natural therapy theoretically belongs to the scope of natural medicine. By using a sub-health questionnaire, all investigation of epidemic diseases in sub-health status people was launched, surveying people living a fast-paced life in Macau, Anhui and Shandong. A total of 5,000 people were surveyed, and 3,324 who returned questionnaires were validated. The manifestations of fast-paced-life people in sub-health status were classified into 4 categories: chronic fatigue, dysfunctional digestive system, anxiety and insomnia, and dry cough due to lung deficiency. They all showed reduced vitality, deterioration of various functions, and less adaptability to different degrees within a certain period of time.

This article generalizes that an emphasis of five therapeutic principles should be used during TCM intervention in people with sub-health status: maintaining Yang in spring and summer, nourishing Yin in autumn and winter, tonifying the kidney in early youth, regulating the liver in middle-age, and invigorating the spleen in old-age.

Keywords:

Nature medicine; Non-chemosynthetic medicine; Non-surgical medical treatment

129.慢性阻塞性肺疾病常見證候要素對應癥狀的專家問卷調查研究

于麗麗、王天芳、薛曉琳、趙燕、吳秀艷、焦揚、杜彩鳳、于曉飛、姜尚上、屈凱、鄧華亮、王慶國

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會議/刊物名稱：

北京中醫藥大學學報，第 34 卷，第 12 期，pp.860-864，2011 年 12 月，中文核心期刊要目總覽(2008)

內容簡介：

目的：運用專家問卷調查的方法初步確定慢性阻塞性肺疾病常見中醫證候要素的主要對應癥狀。方法：在前期研究結果的基礎上，制訂專家問卷，對全國 8 個省市 20 家醫院及科研院所從事呼吸系統疾病工作的專家進行調查。問卷回收後，建立 Epidata 3.1 數據庫管理數據，運用 SPSS17.0 統計軟件分析數據，在分析專家對常見證候要素對應癥狀重要性程度評價的變異系數、均數、累積百分比的基礎上，確定常見證候要素的主要對應癥狀。結果：本次調查共發放問卷 89 份，收回 89 份，回收率爲 100%，均爲有效問卷。根據專家對癥狀重要性程度評價情況及專家意見的集中程度、協調程度情況，將累積百分比 ≥ 70% 和變異系數 ≤ 0.40 作爲確定常見證候要素主要對應癥狀的原則，初步確定慢性阻塞性肺疾病常見病位類證候要素主要對應癥狀 24 個，常見病性類證候要素主要對應癥狀 79 個。結論：通過專家問卷調查，初步確定了慢性阻塞性肺疾病常見證候要素主要的對應癥狀，爲進一步建立該疾病基於證候要素的辨證標準提供了依據。

關鍵詞：

慢性阻塞性肺疾病、證候要素、癥狀、專家問卷

129.Expert questionnaire on corresponding symptoms to common syndrome factors of chronic obstructive pulmonary disease

Yu, LL (Yu Li-li); Wang, TF (Wang Tian-fang); Xue, XL (Xue Xiao-lin); Zhao, Y (Zhao Yan); Wu, XY (Wu Xiu-yan); Jiao, Y (Jiao Yang); Du, CF (Du Cai-feng); Yu, XF (Yu Xiao-fei); Jiang, SS (Jiang Shang-shang); Qu, K (Qu Kai); Deng, HL (Deng Hua-liang);Wang, QG (Wang Qing-guo)

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Name of Conference/Journal:

Journal of Beijing University of Traditional Chinese Medicine, Volume 34, Issue 12, pp.860-864, DEC 2011, A Guide to the Core Journal of China (PKU)

Abstract:

Objective: To determine initially the main corresponding symptoms to common TCM syndrome factors of chronic obstructive pulmonary disease (COPD) by using expert questionnaire. Methods: On the base of previous research, an expert questionnaire was designed and with which a survey was carried out in the experts working in treatment of respiratory system diseases from 20 hospitals and institutes in 8 cities and provinces in the whole country. After the questionnaires were taken back, and the data were managed with Epidata 3.1 database and analyzed by using SPSS 17.0 statistical software. The coefficient of variation, mean value and cumulative percentage were analyzed after the experts reviewed the importance of main corresponding symptoms to common TCM syndrome factors of COPD, and main corresponding symptoms were determined. Results: The survey sent out 89 questionnaires and took back 96 that were all effective ones. The callback rate was 100%. According to the review on symptom importance by experts and concentration and coordination of their opinions, cumulative percentage being more than 75% and coefficient of variation being less or equal 0.40 were taken as the principle for determining the main corresponding symptoms to common TCM syndrome factors. There were 24 corresponding symptoms of syndrome factors related to disease locations and 79 related to diseases nature determined initially. Conclusion: The main corresponding symptoms to common TCM syndrome factors of COPD were confirmed by expert questionnaire, which will provide the evidence for establishing TCM syndrome factor-based diagnosis criteria of COPD.

Keywords:

Chronic obstructive pulmonary disease; Syndrome factors; Symptoms; Expert consultation questionnaire

130.互聯網跨組織系統的信任因素

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會議/刊物名稱：

Electronic Commerce Research and Applications, 第 10 卷，第 1 期，pp.85-93，SSCI 檢索，SCI-E 檢索

內容簡介：

本研究是旨在實證於影響互聯網跨組織系統（IIOS）的信任因素研究。本研究構建一個信任模型與其五個信任因素。本研究收集 295 數據進行了模型測試。本研究使用驗證性因素分析和結構方程建模以驗證信任模型。信任的因素包括可用性，可靠性，審計和核查機制，並互操作性。在這項研究中，安全因素是微不足道的。本研究結果僅限於對象爲香港居住的中國人。未來的研究可研究其他類型的行業和產業。這項研究提供了一個研究電子供應鏈中種的信任模型。

關鍵詞：

信任、信息系統、電子供應鏈管理、互聯網跨組織系統

130.Trust Factors Influencing the Adoption of Internet-based Interorganizational Systems

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Faculty of International Tourism, Macau University of Science and Technology

Name of Conference/Journal:

Electronic Commerce Research and Applications, Volume 10, Issue 1, pp.85-93, SSCI indexed, SCI-E indexed

Abstract:

This study aims to empirically examine the trust factors that affect the adoption of Internet-based interorganizational systems (IIOS). A trust model with five trust factors is constructed. The model is tested using data gathered from 295 practitioners. Confirmatory factor analysis is used to validate the model, and structural equation modelling is used for data analysis. The adoption of IIOS is influenced by trust factors including usability, reliability and availability, audit and verification mechanisms, and interoperability, while security is insignificant in this case. The generalization of the findings is currently limited, as the subjects were all Chinese people living in Hong Kong. Future studies could study individuals belonging to other types of professions, industries, and cultures to test the generalizability of the model. The study provides a trust model to facilitate practitioners for the effective adoption of IIOS. It also adds a trust model to the literature of IIOS in the electronic supply chain context.

Keywords:

Trust, Information systems, Electronic supply chain management, Internet-based interorganizational systems

131.國外博彩旅遊業研究綜述

王亮

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會議/刊物名稱：

北京第二外國語學院學報，第 33 卷，第 1 期，pp.34-40

內容簡介：

本文對在《旅遊研究紀事》、《旅遊管理》等五本國外主流旅遊學術刊物上檢索到的博彩旅遊業研究相關文獻進行了較爲詳細的梳理和分析。內容上這些文獻主要圍繞三個基本問題的分析而展開：博彩旅遊業的影響、博彩旅遊者以及博彩旅遊企業的經營與管理。最後，筆者還對國外該領域現有文獻的研究局限做了簡要分析，並展望其未來可能的發展走向，以期能爲國內相關研究提供參考和啓示。

關鍵詞：

博彩旅遊業、博彩旅遊者、博彩旅遊業目的地居民

131.A Literature Review of Foreign Study on Gaming Tourism

Wang, L (Wang Liang)

Faculty of International Tourism, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Beijing International Studies University, Volume 33, Issue 1, pp.34-40

Abstract:

Foreign scholars have paid increasing attention to gaming tourism. This paper attempts to contribute to extant gaming tourism literature by providing a comprehensive understanding on gaming tourism literature. Through reviewing both theoretical and empirical studies on gaming tourism at top tier journals-Annals of Tourism Research ,Tourism Management etc.- and the studies which are widely cited, this paper concludes that Impacts of Gaming Tourism, Gaming Tourists and Management and operations of Gaming Enterprises are the main research areas in the past decades. Based on our review, useful implications are identified and several directions for future research are presented.

Keywords:

Gaming Industry, Gaming tourists, Residents at gaming destination

132.台灣的觀光美食文化的現狀與發展

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會議/刊物名稱：

「2011 美食觀光-環境永續的挑戰或機會?」國際學術討論會，2011 年 5 月，台灣高雄，會議文章

內容簡介：

由於生活和知識水準的提高，人們對旅遊的要求逐漸改變，追求高品質知性和感性的旅遊，所以對旅遊的經驗特別重視。美食旅遊是一種新興的旅遊市場，旅客藉由食物來體驗另一種文化傳統。台灣的美食已在國際間享有盛名。豐富多元的台灣文化和傳統，各種在地美食也因此孕育而生，且都寫下每一個時期台灣人民的生活情形，以及當時人民的飲食習慣與方式。反觀，目前的推廣的觀光美食的活動和介紹各地美食節目，太過重視食物本身的烹飪技巧與行銷，卻忽略了蘊藏在美食背後的文化及其地方色彩。美食儼然成爲烹調技術和挑戰味蕾的代名詞，是目前推廣觀光美食令人憂心的一環。如果能將傳統美食以當地文化做包裝，必能使得觀光美食文化更加有意義，且能在推廣美食的同時，讓旅客有更深一層的了解台灣文化。建議參考歐美國家提倡美食文化的模式，在介紹台灣美食的同時，帶領著旅客進入時光的隧道，了解當時文化背景及台灣人民的生活狀況，進而可以教導旅客如何準備食材及其烹煮方式。讓旅客體驗不同的旅遊經驗，並在物質和精神方面獲得滿足。因此，將台灣美食和地方文化做結合，將會是目前台灣提倡觀光美食文化旅遊的一項重要的課題。

關鍵詞：

文化旅遊、台灣文化、美食觀光、旅遊經驗

132.Gastronomy Tourism in Taiwan: The Present and Future Development

Wang, YC (Wang Ying-Chuan)

Faculty of International Tourism, Macau University of Science and Technology

Name of Conference/Journal:

Gastro-tourism: Sustainable Challenges or Opportunities? May 2011, Kaohsiung Taiwan, conference article

Abstract:

With the improvement in living standards and knowledge, people have changed their view on travelling and looking for a high quality and, sensible tour, so the experience of travelling has been emphasised. Gastronomy tourism has become a new trend in the tourism market. Tourists rely on food tasting to experience distinct cultures. Taiwanese gourmet has earned its name internationally. The diversity of Taiwanese culture and traditions has developed its local gourmet food which represents each different stage of lifestyles and eating habits. However, the present promotions of gastronomy tourism and TV shows have placed the importance on cooking techniques and sales, ignoring the culture and local habitat behind the food. Local gourmets have turned into a replacement of cooking technique and tasting challenge. Therefore, it is a worry on current promotion of gastronomy tourism. It would be much more meaningful when the traditional gourmet links with local culture and this will introduce further understanding in Taiwanese culture for tourists. It is recommended to take European gourmet and culture introduction as a reference. Tourists can travel back from the future with Taiwanese gourmet to have a glance on local culture and lifestyle at different stages of the time, follow understanding the preparation and cooking techniques of the food. Allowing tourists to experience a different travelling experience and satisfied from both tangible and intangible. Therefore, to link gourmet and local culture together will be an important element to promote gastronomy tourism in Taiwan.

Keywords:

Cultural tourism, Taiwanese culture, Gastronomy tourism, Traveling experience

133.初探澳門的博物館商店

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會議/刊物名稱：

澳門科技大學學報，第 5 卷，第 2 期，pp.52-60，2011 年 12 月

內容簡介：

博物館商店延伸了博物館的展覽，也拉近了參觀者和陳列在櫥窗內的展覽品的距離。在許多國家，博物館商店提供給觀眾一個休閒和教育的地方，也成爲他們參觀博物館時必拜訪之處。本作者在參與歷史博物館觀眾感知的研究中，發現澳門的博物館商店常爲參觀者所忽略的一環。因此，在本文中針對博物館商店扮演的角色，其設立的目的和功能來討論目前澳門博物館商店的狀況。更以本研究小組對於澳門博物館商店的實地考察及採用幾位專家的訪談內容來更進一步的了解博物館商店其目前的困境及未來的方向。

關鍵詞：

博物館商店、教育功能、特色商品、人員訓練

133.An Exploration of Museum Shops in Macau

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Name of Conference/Journal:

Journal of Macau University of Science and Technology, Volume 5, Issue 2, pp.52-60, DEC 2011

Abstract:

A museum shop is an extension of the exhibition and shortens the distance between the visitors and displayed items. In many countries, museum stops provide the visitors a place for education and leisure and they often become a must-go destination in museums. In this research, the author discovered the museum shops in Macau seem to be an issue which has been paid less attention so that she attempted to explore the situations occurred inside museum shops in Macau. Therefore, this article discussed current circumstances in Macau Museum shops by focusing on its role, the purpose of establishing, and its features. The research team had collected information from locals and interviewed experts on the field to understand further on the dilemmas, future directions of Macau Museum stops.

Keywords:

Museum shops; Educational function; Merchandises; Staff training

134.論明中至清前期文人在山水風景中的“適性”感悟

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澳門科技大學　國際旅遊學院

會議/刊物名稱：

厦門大學學報（哲學社會科學版），2011 年第 3 期，中文核心期刊要目總覽(2008)，CSSCI 檢索

內容簡介：

明代中後期至清代前期，一場王陽明、王艮和李贄倡導的，張揚人的個性和主體性的心學思潮，以及對逸游敗德論進行解構和顛覆的思想運動，引發了對人之本性的思考。在這種背景下，有“適性”色彩的思想應運而生，提倡在自然風景中釋放本性、感悟自然，於縱情山水間流露出“人”的真性情的審美意向。

關鍵詞：

明清、文人、山水風景、適性感悟

134.Natural Instincts in Inspiration of Landscape of Intelligentsia from Mid-Ming to Early Qing Dynasties

Wang, ZC (Wang, Zichao); Chen, LO (Chen, Liou)

Faculty of International Tourism, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Xiamen University (Philosophy and Social Science), 2011(3), A Guide to the Core Journal of China (PKU), CSSCI indexed

Abstract:

From the middle age of Ming Dynasty to early stage of Qing Dynasty of China, with the development of the study of heart raised by Yangming Wang, Gen Wang and Zhi Li, the old theories about cultivating one's morality throught landscape and the tourism’s destructiveness of one’s morality were overthrown. During that period, people’s individual idea became important, especially for theory of human nature. There was a kind of thought about pursuing the natural freeness in landscape. The intelligentsia began to find the way of releasing their hearts through the appreciation of the landscape and showing great interests into it. They would like to enjoy themselves in the landscape happily with more free and natural thoughts.

Keywords:

Ming and Qing Dynasties’ Culture, Intelligentsia, Landscape, Natural Instincts

135.中國傳統賭神崇拜試探

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澳門科技大學　國際旅遊學院

會議/刊物名稱：

澳門科技大學學報，第 5 卷，第 1 期，pp.91-97，2011 年 6 月

內容簡介：

本文分析了中國古代人間真實的博戲活動和頗爲流行的博戲神話，研究中國賭神崇拜文化產生與變化的歷史。探討“博弈”當中，“不確定性”基礎上產生的賭神崇拜文化特徵，並分析其人間原型之不同背景與心態。根據博弈的文化心理流變和西嶽金天王崇拜典型，試解人們爲什麼在實利的博弈中，拜祭那執掌“不確定性”結果的神祗，從而探索中國傳統文化中賭神崇拜的深刻淵源。

關鍵詞：

賭神崇拜、博戲、神話

135.Original Culture Research of God of Gambling Belief of China

Wang, ZC (Wang Zichao); Wang, KL(Wang Keling)

Faculty of International Tourism, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Macau University of Science and Technology, Volume 5, No. 1, pp.91-97, Jun 2011

Abstract:

The God of gambling belief is a common folk phenomenon. Before entering the casino, many people would like to burn incense in Macau’s temples, praying for super power to win in the coming gambling. At the angel of God of Gambling belief in Macau, this paper studies the real and ancient gambling activities and some famous fairy tales of ancient China,trying to find the evolutive history of the belief in China.Firstly, this paper studies the cultural features of uncertainty and God power. Secondly, this paper analyzes different background and considerations of people with worship of God of Gambling. Thirdly, according to the evolution of cultural psychology and the typical worship of Golden King of China’s Huashan Mountain, the paper tries to find the reasons of praying for God who powers the uncertain results in gambling activities for actual benefit. In summary, we try to explore the origin of God of gambling belief in the traditional culture of China.

Keywords:

God of Gambling Belief, Gambling, Fairy Tales

136.旅遊網站在生態旅遊業中的應用——基於加拉帕戈斯的實證研究

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澳門科技大學　國際旅遊學院

會議/刊物名稱：

2011 第十屆 IEEE/ACIS 計算機與信息科學國際大會(ICIS 2011)，pp.171-176，2011 年 5 月 16-18 日，中國海南三亞，EI 檢索，會議文章

內容簡介：

生態旅遊與電子旅遊同被視爲當前旅遊業發展的大勢所趨，而二者在供給與需求兩個方面所具有的若幹共同特征，則奠定了於生態旅遊業中應用電子旅遊技術的可行性依據。本文以全球公認的生態旅遊開發的成功典範——加拉帕戈斯群島爲例進行實證研究，旨在探討電子旅遊的代表——旅遊網站促進生態旅遊業的現狀及關鍵問題。本探究搜索到與加拉帕戈斯旅遊相關的大量旅遊網站，按照相關性與研究需要鎖定了其中的 86 個，並按照網站的歸屬與用途將其劃分爲三個類別，即旅遊企業網站、政府與非政府網站，以及門戶網站與專業的旅遊網站。本文重點分析了其中的 72 家旅遊企業網站，從網站內容中的信息提供、客戶關系管理、在線交易及對生態旅遊的倡導等四個方面的特征進行了統計及對比。結果發現，大多數旅遊企業網站都在積極地依托該旅遊目的地的優美環境與獨特資源促進各自旅遊產品的銷售，並在信息提供及客戶關系管理方面表現良好，但是未能通過在線的環境宣教與遊客管理有力地倡導生態旅遊及負責任的旅行。最後，文章相應地提出了改進及優化措施。

關鍵詞：

生態旅遊、電子旅遊、旅遊網站、加拉帕戈斯、可持續發展

136.Embracement of e-tourism in Ecotourism: A case study of tourism websites for Galapagos

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Faculty of International Tourism, Macau University of Science and Technology

Name of Conference/Journal:

Proceedings - 2011 10th IEEE/ACIS International Conference on Computer and Information Science, ICIS 2011, pp.171-176, May 16, 2011 - May 18, 2011, Sanya, Hainan Island, China, EI indexed, conference article

Abstract:

Ecotourism and e-tourism are both perceived as the overwhelming trend for today's tourism industry, and share some common features on both demand and supply sides, which lays the foundation for the feasibility of the application of e-tourism to ecotourism. The objective of this paper is to identify the critical issues of integration between them two through the empirical analysis of Ecuadorian Galapagos, which is generally accepted as an exemplary demonstration for ecotourism initiatives in the world. A total number of eighty-six websites concerning tourism in Galapagos are found and categorized into three types in terms of their hosts or affiliations, namely, tourism companies, governments and non-governmental organizations and professional tourism websites. As the focus of this study, the seventy-two websites belonging to tourism companies are examined in great depth, from aspects of inclusion of travel information, customer relationship management, online transaction and advocacy of ecotourism. As the findings show, these website have made good use of the sound environment and unique resources of Galapagos to boost their business, and have done well in information provision and customer relationship management, but still have considerable room for improvement in advocating ecotourism or responsible travel through online environmental education and visitor management. Finally, a few recommendations are proposed accordingly.

Keywords:

Ecotourism; E-tourism; Tourism websites; Galapagos; Sustainable development

137.澳門旅遊生態足跡研究

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會議/刊物名稱：

生態經濟，2011(11)，pp.86-91，2011 年 11 月，中文核心期刊要目總覽(2008)

內容簡介：

澳門小城以狹小的地域面積承載著規模巨大的旅遊活動，蓬勃興旺的旅遊產業已成爲澳門社會經濟的命脈，並爲世人所矚目。然而，旅遊業以旅遊目的地的生態環境與自然資源爲基礎，並在發展過程中不可避免地對二者產生壓力與負面影響。運用生態足跡的理論與方法，測算出 2009 年澳門不可轉移之旅遊生態足跡爲 18 300.891gha，是旅遊生態承載力的 3.29 倍，旅遊生態赤字爲 12 737.584gha，結果發現澳門的旅遊生態足跡經濟效率較高，但旅遊活動正在過度消耗資源環境，使當地的旅遊發展不具備生態可持續性，因此相應的改進措施應早日出臺，以實現資源保護與旅遊發展的平衡，促進旅游業的持續發展。

關鍵詞：

澳門、旅遊生態足跡、可持續發展

137.On Touristic Ecological Footprint of Macau

Zhang, M (Zhang Meng); Yang, Y (Yang Yu)

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Name of Conference/Journal:

Ecological Economy, 2011 (11), pp.89-91, NOV 2011, A Guide to the Core Journal of China (PKU)

Abstract:

Despite its tiny territory, Macau boasts large volume of tourist activities, which serves as the pillar of its economy. Environment and natural resources is the cornerstone of tourism, but are also subject to the negative impact of tourism. Based on the theory and methodology of ecological footprint analysis, this paper calculated the touristic ecological footprint and deficit of Macau in 2009, in an effort to bring to light the current status of excessive consumption of resources by tourism. As the findings show, the non-transferable touristic ecological footprint and touristic ecological deficit of Macau in 2009 are respectively 18 300.89l gha and 12 737.584 gha, and the former is 3.29 times as large as touristic ecological carrying capacity. Touristic ecological footprint of Macau is highly efficient but currently tourism is developing in an unsustainable manner, so appropriate initiatives are in need to strike a balance between tourism development and resource conservation and to promote the sustainability of tourism industry of Macau.

Keywords:

Macau; Touristic ecological footprint; Sustainable development

138.對醫療旅遊發展的態度：基於利益相關者的研究

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會議/刊物名稱：

澳門科技大學學報，第 5 卷，第 2 期，pp.78-88，2011 年 12 月

內容簡介：

我國的醫療旅遊目前還處於起步階段，醫療資源作爲醫療旅遊發展依靠的根本性資源同時也是當地居民所應分享的重要公共資源之一。因此社區居民對醫療旅遊的態度和認識非常值得研究。本論文以中西部地區第一個現代醫療保健服務基地成都國際醫學城爲例，分析了當地社區居民對此項目的態度，從利益相關者的角度通過統計定量分析方法獲取了其對醫療旅遊發展的認識和觀點。並由此對醫療旅遊項目和當地社區和諧發展提出意見和建議。

關鍵詞：

社區居民、醫療旅遊、利益相關者、態度

138.Attitude of Local Residence to Medical Tourism Development:A Research Based on Stakeholder Theory

Zhang, Y (Zhang Yang); Huang, GQ (Huang Guoqing); Ji, MJ (Ji Mingjie)

Faculty of International Tourism, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Macau University of Science and Technology, Volume 5, Issue 2 pp.78-88, DEC 2011

Abstract:

Medical tourism in China is just at the stage of starting. Medicine resource as the essential part of medical tourism is one of the important public resource as well for the local residence in medical tourism destination. Therefore, the attitude of local residence to the development of medical tourism is worthy to be paid attention. This paper used the Chengdu International Medicine City, which is the first modern medicine and healthcare base in the central and western regions of China as the case to analyze local residence's attitude. Then, the author use quantitative method to get their concrete understanding and opinion of this medical tourism project and provide some suggestions base on the analysis for the purpose of the harmonious development of the project and local community.

Keywords:

Local residence; Medical tourism; Stakeholder; Attitude

139.酒店網上銷售之法律糾紛: 澳門

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會議/刊物名稱：

Proceedings - 2011 第十屆 IEEE/ACIS 計算機與信息科學國際大會(ICIS 2011)，pp.151-159，2011 年 5 月 16-18 日，中國海南三亞，EI 檢索，會議文章

內容簡介：

本論文主要討論澳門星級酒店於其酒店官方網站進行其產品銷售時可能出現之法律糾紛。酒店網站上之使用條款，個人資料保護及網絡安全爲本文重點研究範疇。由於澳門對旅遊產品之網上銷售可能引起之法律爭議及糾紛的研究尚屬起步階段,作者透過是次研究以增加有關之討論。調查結果發現，澳門五星級酒店網站大都能依法向房客提供有效的法律保障。相反，澳門三星級酒店網站未能向房客提供有效的法律保障。建議澳門三星級酒店網站應就網上個人資料保護及網絡安全馬上進行改善。

關鍵詞：

網上預訂、使用條款、個人資料保護、網絡安全、酒店網站、澳門

139.A discussion on the legal issues when selling hotel rooms online: A case of Macao

Loi, MK (Loi, Mei Kun)

Faculty of International Tourism, Macau University of Science and Technology

Name of Conference/Journal:

Proceedings - 2011 10th IEEE/ACIS International Conference on Computer and Information Science, ICIS 2011, pp.151-159, May 16, 2011 - May 18, 2011, Sanya, Hainan Island, China, EI indexed, conference article

Abstract:

This paper aims to discuss some of the potential legal issues when hotel companies in Macao sell their hotel rooms over their own websites, namely, terms and conditions, the protection of personal information and the provision of security facilities. Little is known by way of research of potential online legal issues in the tourism industry of Macao, this paper attempts to supplement the limited existing work. The 5-star grouping of hotels in Macao is more able or willing to achieve the desired level of legal protection within their websites whereas the 3-star grouping of hotels has much more ground to cover. Attention to issues such as addressing personal data protection online and adopting appropriate security measures when taking and holding sensitive data of hotel guests should be given more considerable priority within this grouping of service providers.

Keywords:

Online reservation, Terms and conditions, Personal information, Online security, Hotel websites, Macao

140.會展服務滿意度測評研究——以澳門國際貿易投資展覽會爲例

張濤

澳門科技大學　國際旅遊學院

會議/刊物名稱：

旅遊論壇，第 4 卷，第 1 期，pp.24-27，2011 年 2 月，CSSCI 檢索

內容簡介：

剖析會展服務滿意度的影響因素，構建會展服務滿意度指數模型和測評指標體系，對提高會展服務質量、提升會展企業競爭力具有指導意義.通過文獻研究和專家訪談等方法,構建了會展服務滿意度指數模型；對參展商和觀眾進行問卷調查，並運用因子分析和結構方程模式等手段對回收的 452 份有效問卷加以分析。研究表明，會展服務滿意度主要有 4 類影響因素,分別是現場接待服務、會展專業服務、會展配套服務和會展后臺服務；會展服務滿意度測評需要考察 15 項指標。

關鍵詞：

會展、顧客滿意度、影響因素、測評

140.A Study on Satisfaction Measurement for MICE Service——the case of Macao International Trade and Investment Fair

Zhang, T (Zhang Tao)

Faculty of International Tourism, Macau University of Science and Technology

Name of Conference/Journal:

TOURISM FORUM, Volume 4, Issue 1, pp.24-27, FEB 2011, CSSCI indexed

Abstract:

This study is to discuss the influence factors of customer satisfaction on the meeting and exhibition services and to establish a measurement scale system of customer satisfaction on meeting and exhibition services. For the purpose of study, literature review, personal interview, case study, and data analysis were used. 600 questionnaires were distributed and 452 effective questionnaires were gained, then descriptive analysis, factor analysis, and structured equation modeling analysis were used. The conclusions of this study are presented as follows：(1) Four service dimensions should be investigated to measure satisfaction of meeting and exhibition services, which are hospitality services, professional services, complementary services, and back—stage services of meeting and exhibitions. (2) Fifteen items are included in a questionnaire of MICE service satisfaction measurement scale.

Keywords:

Meeting and exhibition; Satisfaction; Influencing factor; Measurement

141.節事動機研究述評與展望

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澳門科技大學　國際旅遊學院

會議/刊物名稱：

2011 中國旅遊研究年會，2011 年 5 月 21 日 ，北京，會議文章

內容簡介：

節事動機研究是認識節事遊客需要和消費決策行爲的關鍵，主要探究遊客參與節事的原因和驅力。本研究通過全面的文獻梳理，指出當前研究興趣爲動機維度、動機差異和市場細分三個方面.家人聚會、社交、獵奇、逃離和文化探索是最常出現的動機。動機差異分析主要從遊客的人口統計特征、參與次數、居民／遊客、文化背景，以及節事主題和類型五個方面考察。跨文化、跨學科和關注體驗是節事動機研究的三個未來發展方向。

關鍵詞：

節事、動機、動機維度、文獻回顧

141.Festival Motivation Research: A Review and Prospects

Zhang, T (Zhang Tao)

Faculty of International Tourism, Macau University of Science and Technology

Name of Conference/Journal:

2011 Tourism Tribune China Tourism Research Annual Conference, 21 May 2011, Beijing, conference article

Abstract:

As the key to know festival tourists' demand and consumption decision behavior, festival motivation research mainly discuss the reason and motivators to participate a festival. By conducting a literature review, this study shows festival motivation research appears to cluster around three main areas: motivation dimensions, motivation differences, and market segmentation. The five most frequently appeared motivation dimensions are family togetherness, socialization, novelty, escape, and culture exploration. motivation differences should be identified by five variables, namely, demographic variables, number of participation, residents and tourists, culture background, and festival's type and theme. Cross-culture and cross-disciplinary study should by applied in the future research, and festival consumption experience study should also be included.

Keywords:

Festival and special event; Motivation; Motivation dimensions; Literature review

142.澳門博物館發展芻議——基於社會資本的探討

唐娟、王心

澳門科技大學　國際旅遊學院

會議/刊物名稱：

北京第二外國語學院學報，第 33 卷，第 5 期，pp.46-52，2011 年 5 月

內容簡介：

伴隨著社會資本目前逐漸成爲諸多學科領域研究的熱點問題之一，作爲社區內重要的公共空間尤其是文化教育空間的博物館，在影響社會資本的培育和積累方面起著非常重要的作用。但是，通過筆者的實地調查，澳門的很多博物館存在社區居民少有光顧的局面。顯然，澳門的博物館在立足於社區服務、發揮社會資本價值上出現應有功能與實際功能的脫節。本文將澳門博物館社會資本缺失的原因歸納爲博物館供給相對單調、主題宣傳引導不足兩方面，並提出澳門博物館社會資本建立的目標：應該將澳門博物館建設成居民互動與網絡建構的場所和社區標誌性文化空間，最後提出解決澳門博物館社會資本缺失的若干對策。

關鍵詞：

社會資本、對策、澳門博物館

142.Some Thoughts on Development of Museums in Macao

Tang, J (Tang Juan); Wang, X (Wang Xin)

Faculty of International Tourism, Macau University of Science and Technology

Name of Conference/Journal:

JOURNAL BEIJING INTERNATIONAL STUDIES UNIVERSITY, Volume 33, Issue 5, pp.46-52, MAY 2011

Abstract:

Since the social capital into the vision of researchers, many disciplines become one of hot research pots. Museum as an important public space, especially as an cultural and educational space, plays a very important role in the cultivation and accumulation of social capital. However, most of the Macao museums of the situation there few people visited, this article find the reasons for the Macao museums lack of social capital summarized as supply monotonous and lack of theme public guidance. Macao museums should be established as the place which the Macao residents can interaction and build network, also as a construction sites and residential landmark cultural space. Finally, propose strategies to the Macao museums of the missing measures of social capital.

Keywords:

Social capital; Strategies; Museums in Macao

143.後博物館時代的澳門博物館發展展望

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會議/刊物名稱：

澳門科技大學學報，第 5 卷，第 1 期，pp.39-47，2011 年 6 月

內容簡介：

在澳門大力推動產業多元化、發展旅遊文化產業的浪潮中，博物館作爲記錄城市的“名片”扮演著重要角色。本文首先對後博物館來臨的時代背景進行了剖析，並進一步在文獻綜述以及田野調查的基礎上，剖析澳門本土博物館的特徵以及面臨的種種問題，包括解說系統單薄、路標指引模糊、文字解說不足、商業模式單一。最後結合後博物館的時代背景提出若干啓示和展望，包括了服務品質導向、大眾文化導向、大博物館導向以及互動參與導向。希望對澳門及其他地區博物館業的發展有所實質性的幫助。

關鍵詞：

後博物館時代、澳門博物館、發展

143.Some Insights into the Development of Museums in Macau: a Perspective of Post-museum Era

Tang, J (Tang Juan); Liu, YZ (Liu Yuzhu)

Faculty of International Tourism, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Macau University of Science and Technology, Volume 5, Issue 1, pp.39-47, JUN 2011

Abstract:

Macau Government is trying to develop industrial diversification and committed to establishing a city imageof unique culture. On the basis of this background Museums are playing a vital role to represent the essential culture for the local region. The current post-industrial era embraces many changes for museum. Adopting the methodology of field study and depth interview with some experts in this circle, this study analyzes the features of museums in Macau. Some problems are then explored. To keep updated with the changes brought by the Post-museum era and settle the negative problems, some insights into the development of Museums in Macau are put forward in the end including service quality orientation, mass culture orientation, integration orientation as well as participation orientation.

Keywords:

Post-museum Era; Museums in Macua; Development

144.影視旅遊國外文獻綜述

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會議/刊物名稱：

澳門科技大學學報，第 5 卷，第 2 期，pp.69-77，2011 年 12 月

內容簡介：

影視旅遊因其在提升旅遊目的地知名度以及帶來巨大經濟效應等不可小覷的作用而受到學術界越來越多的重視，近年來國外針對影視旅遊的研究逐年增多，研究角度呈現越來越新穎，寬廣的趨勢。本文在綜合檢索了 1992 年至 2011 年國外影視旅遊相關的研究文獻基礎上，對其 3 個主要的研究關注點進行了較爲詳細的回顧和評析。最後，對國外影視旅遊研究所呈現出的特點和走向作了總結，通過對其研究發展的評述和不足之處的指出，簡要探討了對未來相關研究的啓示。

關鍵詞：

影視旅遊、旅遊客體、利益相關者、真實性

144.A Foreign Literature Review on Film-induced Tourism

Tang, J (Tang Juan); Gao, SM (Gao Shangmei)

Faculty of International Tourism, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Macau University of Science and Technology, Volume 5, Issue 2, pp.69-77, DEC 2011

Abstract:

Movie-induced tourism is increasingly gaining attention from researchers as well as practitioners due to its positive role in tourism destination image promotion and economic contribution. With more and more diverse perspectives in this research, this paper reviews corresponding foreign research from 1992 to 2011 and categorizes them into 3 general aspects, followed by an in-depth analysis and comment. In the end, this paper summarizes briefly the features and trends by pointing out some weakness in the research for future studies.

Keywords:

Movie-induced tourism; Tourism object; Stakeholder; Authenticity

145.旅遊目的地感知形象非結構化測量應用研究——以訪澳商務遊客形象感知特征爲例

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澳門科技大學　國際旅遊學院

會議/刊物名稱：

旅遊學刊，第 26 卷，第 12 期，2011 年 12 月

內容簡介：

旅遊感知形象的測量方法可大體分爲兩類，一類爲結構化的測量方法，另一類爲非結構化的測量方法。非結構化形象測量雖然能够更爲全面地瞭解遊客的感知要素和屬性，但分析方法目前還停留在一般頻數統計和比例分析及排序等層面，對遊客在形象感知方面的特徵分析及旅游目的地形象優化等方面意義不大。文章嘗試將內容分析法引入旅遊形象感知的非結構化測量中，用以協助挖掘非結構化形象感知的數據，從而實現提取旅游者的感知形象、解析旅游者形象感知規律，以及探討影響旅遊者對外推廣旅遊形象意願的目的地形象要素等目的。具體研究上，文章以艾特納與瑞奇提出的旅遊目的地形象測量問卷爲基礎，並對其進行調整形成最終的調研工具，然後以商務遊客爲研究對象進行非結構化形象感知數據的獲取，並借助內容分析法來處理非結構化形象測量的信息。最終發現，訪澳商務人士對澳門旅遊形象的總體感知爲：集聚博彩娛樂、各類節慶活動和特色美食的休閑小城，擁有歐式文化和美麗古樸的城市景觀.居民態度、交通設施以及經濟發展態勢等形象要素的正面感知會令旅遊者更願意推廣澳門旅遊。餐飲產品、社會文化氛圍以及政治歷史等形象要素的正面感知會對旅遊者推廣澳門旅遊的意願有幫助。而社會文化與氛圍、自然資源與環境以及服務質量的負面感知會增强旅遊者不推薦他人來澳門旅遊的意願。

關鍵詞：

內容分析法、感知形象、非結構化測量

145.Non-structured Measurement of Perceived Image in Tourism Destinations——Taking Perceived Features of Macau Business Tourists as A Case

Li, X (Li Xi); Ye, S (Ye Sheng); Wang, D (Wang Dong)

Faculty of International Tourism, Macau University of Science and Technology

Name of Conference/Journal:

Tourism Tribune, Volume 26, Issue 12, DEC 2011

Abstract:

The measuring methods of tourists' perceived image can be divided into two categories: structured measuring approach and non-structured measuring approach. Though nonstructured measurement can understand tourists' perceived factors and attributes more comprehensively, the analysis methods still remain on the preliminary levels of frequency statistics, ratio analysis and arrangement in a sequence, which are meaningless in terms of the analysis of tourists' perception features and the optimization of destination image. The paper attempts to introduce the content analysis approach into the non-structured measurement of tourists' image perception and help excavate non-structured perception data, so as to extract tourists' perceived image, analyze tourists' image perceived regulation and discuss the destination image factors that affect tourists' willingness to promote destination image. The paper, based on the questionnaire regarding the measurement of tourism destination image proposed by Echtner and Ritchie, makes an adjustment to form final means for investigation and testing. Then the paper, with business tourists as object of study, obtains the non-structured image perceived data and handles the measurement information with content analysis method. It is revealed that those business tourists visiting Macau have overall perception of tourism image as follows: a leisure small city filled up with lottery and entertainment facilities, various kinds of festival activities and featured cuisine: possessing European culture and beautiful, simple urban landscape. Such positive perceptions as residents' attitude, transportation facilities and economic development trend will influence the tourists' willingness to recommend travel to Macau. Such image factors and positive perception as cuisine products, sociocultural atmosphere and political history will help tourists promote travel to Macau, but such negative perceptions as sociocultural atmosphere, natural resources and environment as well as service quality will reduce tourists' willingness to recommend Macau.

Keywords:

Content analysis method; Perceived image; Nonstructured measurement

146.旅遊管理專業英語教學優化策略研究——基於澳門科技大學旅遊管理專業英語學習行爲特征的分析

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澳門科技大學　國際旅遊學院

會議/刊物名稱：

旅遊學刊，第 26 卷，第 2 期，pp.89-94，2011 年 2 月，中文核心期刊要目總覽(2008)，CSSCI 檢索

內容簡介：

以人爲本的理念和學以致用的理念是教育中的重要思想。對於旅遊管理專業的同學而言，了解其需求，並對不同類型學生的英語學習期望、學習特點以及學習方式等進行分析，有助於採用較具有針對性的方法提升學生英語學習的積極性以及成效。文章以澳門科技大學國際旅遊管理專業的學生爲對象，綜合運用了問卷抽樣調查以及深度訪談等方法，分別從學生在英語學習方面的行爲特徵與規律、影響英語學習效果的因素以及教師和業界人士對英語學習的認知等方面進行了分析。最終提出，旅遊管理專業的英語教學應該注重業界與高校學生交流，增強其英語學習的主動性；積極創新課堂教學形式，提升課堂英語教學的吸引力；尊重學生英語水平的差異，實施個性化教學與培養；完善校園英語學習環境，渲染濃厚的英語學習氛圍。

關鍵詞：

旅遊專業、英語教學、行爲特徵

146.Optimized Strategy in English Teaching for Tourism Management Major——Based on the Analysis of the Behavioral Characteristics of English Learning in Tourism Management Major of Macau University of Science and Technology

Leong, MW (Leong Man Wai); Li, X (Li Xi)

Faculty of International Tourism, Macau University of Science and Technology

Name of Conference/Journal:

TOURISM TRIBUNE, Volume 26, Issue 2, pp.89-94 , FEB 2011, A Guide to the Core Journal of China (PKU), CSSCI indexed

Abstract:

People-oriented concept and concept of study for the purpose of application are important thinking in education. So far as students majoring in tourism management are concerned, understanding their needs and expectations of English learning for different types of students and analyzing their learning methods will be helpful to adopt more effective approach and raise the initiative of their English learning. The paper, taking students majoring international tourism management in Macau. University of Science Technology as object, through questionnaire sampling survey and in-depth interviews, analyzes students' behavioral characteristics and regulation of learning English, factors that affect their learning effect and the cognition of teachers and personnel in the industry about English studies. English teaching and learning in tourism management major should lay stress on exchanges between the industry and student, improve students' imitative of learning English, actively innovate classroom teaching methods, upgrade the attractiveness of classroom teaching, respect students' differences in English proficiency, implement personalized teaching and training, improve campus environment for English learning and create profound atmosphere for English learning.

Keywords:

Tourism major; English teaching; Behavioral characteristics

147.香港遙距學習者自我調控學習素養培養的困難和對策

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澳門科技大學　國際旅遊學院

會議/刊物名稱：

澳門科技大學學報，第 5 卷，第 1 期，pp.82-90，2011 年 6 月

內容簡介：

論文旨在調查中國香港地區在高等院校進行遙距學習的學生在遙距自我調控學習素養的現況，希望藉由訪談的方式，將搜集的資料、統計的分析、訪談的結果，以瞭解香港地區的遙距自我調控學習素養，並爲日後針對結果之異同加以比較，提出具體的建議，用作提升香港的成人遙距學生的學習效果，並爲增進成人自我調控學習的成效提供優化策略的參考。

關鍵詞：

自我調控學習、遙距學習、學習素養、香港

147.Cultivating Online Self-regulated Learning for Adult Learners in Hong Kong:

Leong, AMW (Leong, Aliana Man Wai)

School of Continuing Studies, Macau University of Science and Technology

Faculty of International Tourism, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Macau University of Science and Technology, Volume 5, Issue 1, pp.81-90, JUN 2011

Abstract:

This study aims at exploring the current condition of adult online self-regulated learning and its effect on adult literacy in Hong Kong. It is expected that through interview, data collection and statistical analysis to understand adult online self-regulated learning and its effect on adult literacy in Hong Kong and compare similarities and differences of the results to build concrete proposals to make adequate preparations to enhancing the effectiveness of adult self-regulated learning in Hong Kong.

Keywords:

Self-regulated learning; Online learning; Learning literacy; Hong Kong

148.A game of win-win or win-lose? Revisiting the internet's influence on sociability and use of traditional media

彭泰權、祝建華

澳門科技大學　人文藝術學院

會議/刊物名稱：

New Media and Society，第 13 卷，第 4 期，pp.568-586，2011 年 6 月，SSCI 檢索

內容簡介：

本研究分析了互聯網的採納和使用對人的社交活動和傳統媒體使用的影響。本文的數據來自于在香港 2003-2005 年進行的一項社會調查。本研究發現，互聯網的採納和使用是有著不同的社會影響的兩個不同的過程。網民比非網民在傳統媒體上花費的時間更少，但是網民和非網民在社交活動上花費的時間沒有差別。同時，網民的社交活動和傳統媒體使用之間存在正相關，而在非網民中則不存在這種相關。本文採納了一項新的測量網民使用行爲的工具，“互聯網使用的成熟度”，來分析互聯網的使用的影響。本研究發現無論網民上網歷史的長短，互聯網的使用都不會影響網民的社交活動和傳統媒體的使用，這否定了所謂的“新奇效應”。

關鍵詞：

互聯網、新奇效應、社交活動、傳統媒體使用、結構方程模型

148.A game of win-win or win-lose? Revisiting the internet's influence on sociability and use of traditional media

Peng, TQ (Peng Tai-Quan); Zhu, Jonathan J. H.

Faculty of Humanities and Arts, Macau University of Science and Technology

Name of Conference/Journal:

NEW MEDIA & SOCIETY, Volume 13, Issue 4, pp.568-586, JUN 2011, SSCI indexed

Abstract:

This study examines the influence of internet adoption and internet usage on sociability and use of traditional media. With empirical data collected in Hong Kong between 2003 and 2005, it confirms that adoption and usage are two distinct processes, with different social impacts. It is found that, on average, internet users spend significantly less time on traditional media than nonusers, while both groups spend the same amount of time on social activities. Furthermore, users' sociability and use of traditional media are positively correlated with each other, while among nonusers there is no such correlation. When the spotlight is turned on internet users, a new measurement, called 'sophistication of internet usage', is employed to examine the impact of internet use on traditional media use and sociability. It is found in the study that internet use does not influence users' sociability and use of traditional media, regardless of the length of internet adoption history, which disconfirms the so-called 'novelty effect'.

Keywords:

Internet; Novelty effect; Sociability; Structural equation modelling; Use of traditional media

149.Sophistication of Internet usage (SIU) and its attitudinal antecedents: An empirical study in Hong Kong

彭泰權、祝建華

澳門科技大學　人文藝術學院

會議/刊物名稱：

Computers in Human Behavior，第 27 卷，第 1 期，pp.421-431，2011 年 1 月，SSCI 檢索

內容簡介：

在實證研究中，互聯網使用的測量經歷了從單項目測量到多項目測量的發展歷程。基於現有的對互聯網使用的操作化定義，本文提出了一個新的反射測量模型，稱爲“互聯網使用的成熟度”。該模型包括五個指標，分別是在線時間，在線活動，在線技能，在線方法的多樣性和上網地點的多元化。本文用從 2003 年至 2005 年在香港進行的隨機調查的數據，對這一測量模型進行了實證檢驗。經過驗證性因子分析得到了一個單維測量模型。同時，本研究在多特質多方法（MTMM）的框架下對該測量模型的收斂和判別效度進行了檢驗。最后，本研究發現，個人對互聯網的正面生活效果的期待，預期的易用性，以及預期的互聯網的普及性會影響到人的互聯網使用的成熟度。

關鍵詞：

互聯網使用的成熟度、預期的效果、預期的易用性、預期的互聯網的普及性

149.Sophistication of Internet usage (SIU) and its attitudinal antecedents: An empirical study in Hong Kong

Peng, TQ (Peng, Tai-Quan); Zhu, Jonathan J. H.

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Name of Conference/Journal:

COMPUTERS IN HUMAN BEHAVIOR, Volume 27, Issue 1, pp.421-431, JAN 2011, SSCI indexed

Abstract:

The measurement of Internet use in empirical studies has undergone a progression from uni-item measurement to multi-item measurement. Based on several operationalizations of Internet use in existing studies, the paper proposes a reflective measurement model, called 'sophistication of Internet usage' (SW), with five indicators (online time, online activities, online skills, diversity of online method, and diversity of online places). With data from a longitudinal random survey conducted in Hong Kong from 2003 to 2005, a uni-dimension measurement model is established based on confirmatory factor analysis. Convergent and discriminant validity of the uni-dimension model is also established within multi-trait-multi-method (MTMM) paradigm by confirmatory factor analysis. The model shows that individuals' positive life outcome expectation, expected ease of use, and perceived popularity of the Internet are significant antecedents of SIU with demographic characteristics controlled. (C) 2010 Elsevier Ltd. All rights reserved.

Keywords:

Sophistication of Internet usage; Outcome expectation; Expected ease of use; Perceived popularity of the Internet

150.葡萄牙公共空間中的瓷磚藝術

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澳門科技大學　人文藝術學院

會議/刊物名稱：

藝術百家，2011(4)，pp.212-218，2011 年，中文核心期刊要目總覽(2008)，CSSCI 檢索

內容簡介：

葡國瓷磚作爲葡萄牙傳統裝飾藝術形式，廣泛應用於現代建筑及重要公共空間之中，並作爲葡萄牙文化藝術的象征形成獨特的城市人文藝術景觀。文章通過對葡國瓷磚藝術的歷史淵源及文化價值的梳理，重點介紹葡國瓷磚藝術在現當代的發展，著重以里斯本地鐵中的瓷磚藝術、里斯本世博會與當代瓷磚藝術創作兩個方面展開具體論述。文章就葡萄牙瓷磚藝術與現代建築的一體化結合所帶來的獨特的視覺審美體驗等問題，進行了較爲全面和深入的研究，以期爲當代城市公共藝術發展提供更多的借鑒。

關鍵詞：

葡萄牙、公共藝術、葡國瓷磚 (Azulejos)、瓷磚壁畫、人文價值、環境景觀、審美文化

150.Ceramic Tile Art in Portugal Public Space

Meng, S (Meng Shu)

Faculty of Humanities and Arts, Macau University of Science and Technology

Name of Conference/Journal:

Hundred Schools In Arts, 2011(4), pp.212-218, 2011, A Guide to the Core Journal of China (PKU), CSSCI indexed

Abstract:

As a Portuguese traditional decorative art form, Portuguese tiles has been widely used in modern architecture and some important public space. They are also a symbol of Portuguese culture and the unique arts scenery of a urban arts. Through a analysis of historical origins and cultural value of the Portugal tile art, this article focuses on the development of Portugal tile art in modern and contemporary period. Moreover, two aspects of contemporary tile art creation are specifically addressed with emphasis, as the Lisbon subway tile Art, Lisbon Expo commence. A more comprehensive and in-depth study is conducted on the unique visual aesthetic experience problems brought about by the integration of Portuguese tile art and modern architecture, in order to provide more reference for the development of contemporary urban public art.

Keywords:

Portugal; Public art; Portugal tiles (Azulejos); Tile murals; Humanitarian values; Environmental landscape; Aesthetic culture

151.從澳門國際機場壁畫看澳門陶瓷壁畫藝術發展的可能性

孟舒
澳門科技大學　人文藝術學院

會議/刊物名稱：

南京藝術學院學報(美術與設計版)，2011(6)，pp.177-180，2011 年 11 月，中文核心期刊要目總覽(2008)

內容簡介：

作爲城市公共空問中獨立的藝術形式．陶瓷壁畫兼具實用功能和審美功能爲一體，是多元支化在城市文化生態中交融彙聚的特殊載體．亦是城市文化信息得以充分傳播的媒介。本又通過瓷磚壁畫這一獨特的藝術媒介．展現澳門地區獨特的文化藝術的繼承性、包容性、地域性，開放性等特質．論證澳門陶瓷壁畫對于優化城市生態的積極作用和意義，探討澳門當代脚瓷壁畫創作的可能性。

關鍵詞：

陶瓷壁畫藝術、文化交融、審美性、公共性

151.Feasibility of Development of Ceramic Mural Art in Macau - A Case Study on Murals in Macau International Airport

Meng, S (Meng Shu)

Faculty of Humanities and Arts, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Nanjing Institute (Fine arts & Design), 2011(6), pp.177-180, 2011, A Guide to the Core Journal of China (PKU)

Abstract:

As an independent form of art in municipal public space, ceramic mural plays a unique role that's not only practical but also aesthetic; in addition, it is a carrier of and medium by which different cultures fuse and grow in municipal cultural ecology, and it is also a full manifestation of how municipal cultural information is transmitted using the medium of public art. Through the medium of unique ceramic mural culture, the successiveness, tolerance, regional characteristics, openness of Macao culture and art has been fully displayed in this study. Furthermore, the study also makes some reference to the function and significance of ceramic murals in the beautifying process of modern Macao and the possibility of modern ceramic mural creation.

Keywords:

Ceramic mural art; Cultural fusion; Aesthetics publicity

152.城市旅遊紀念品開發的路徑探析——以澳門爲例

黃光輝、孫瑱

澳門科技大學　人文藝術學院

會議/刊物名稱：

南京藝術學院學報 (美術與設計版)，2011(5)，2011 年，中文核心期刊要目總覽(2008)

內容簡介：

本研究通過運用市場觀察、焦點小組訪談等多種研究方法進行調查，在深入了解澳門旅遊紀念品市場現狀、旅澳遊客的消費行爲、澳門城市文化特征的基礎上提出旅遊紀念品開發的可行路徑。

關鍵詞：

政治制度、政治組織、政治規則、政治制度演化

152.The analysis of development path for Macau tourism souvenirs

Huang, GH (Huang Guanghui); Sun, Z (Sun Zhen)

Faculty of Humanities and Arts, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Nanjing Arts Institute (Fine Arts & Design), 2011(5), 2011, A Guide to the Core Journal of China (PKU)

Abstract:

With the methods of markt observation and focus group interviewing, the current study analyzes the status quo of Macau tourism souvenir market, the consumption behavior of Macau tourists, and the metropolitan cultural characteristics of Macau, and proposes the posssible development and design path for Macau tourism souvenirs.

Keywords:

Macau; Tourism souvenir; Consumer behavior; Metropolitan culture

153.從十年《étapes》看當代平面設計之趨勢

高秦艷、黃光輝

澳門科技大學　人文藝術學院

會議/刊物名稱：

包裝工程，第 32 卷，第 22 期，p.88-91，2011 年 11 月，中文核心期刊要目總覽(2008)

內容簡介：

從期刊設計和期刊內容 2 個方面分析了法國設計類高端刊物《étapes》，運用比較研究的方法對封面、刊頭、內頁版式、頁碼、印刷等部分進行探析，闡述了其在裝幀設計上的特色和演變過程。在此基礎上，將十餘年《étapes》中刊登的內容作爲研究素材，運用分析歸納的研究方法，對其關注的熱點進行綜述，提出了當代平面設計的五大主流趨勢，研究結果可爲當代平面設計創意思路提供參考。

關鍵詞：

《étapes》、平面設計、趨勢、演變

153.The Tendency of Modern Graphic Design from 《étapes》in Ten Years

Gao, QY (Gao Qin-yan); Huang, GH (Huang Guanghui)

Faculty of Humanities and Arts, Macau University of Science and Technology

Name of Conference/Journal:

Packaging Engineeing, Volume 32, Issus 22, NOV 2011, A Guide to the Core Journal of China (PKU)

Abstract:

It analyzed the book design and coverage of 《étapes》, which is a high-level publication of design from French, researched its design of cover, nameplate, typographical, pagination and print by comparative method, then expounded the characteristic and evolution process of its physical make-up design. On this basis, it summarized its focus of attention by analyzing and summing up the publish content of 《étapes》in ten years, and pointed out five major trend in graphic design at the present age, the research result can make a reference to creative up-to-date planar design.

Keywords:

《étapes》 ; Graphic design; Trend; Development

154.β 展式的誤差和函數

馬超、謝啓偉、韓華

澳門科技大學　通識教育部

會議/刊物名稱：

數學的實踐與認識，第 41 卷，第 7 期，pp.235-238，中文核心期刊要目總覽(2008)

內容簡介：

在本文中，我們介紹展式的誤差和函數，研究得到了該誤差和函數的連續性及積分性質。

關鍵詞：

Beta-展式、誤差和函數、積分

154.The Error-Sum Function of Beta-Expansion

Ma, C (Ma Chao); Xie, QW (Xie Qiwei); Han, H (Han Hua)

Department of General Education, Macau University of Science and Technology

Name of Conference/Journal:

MATHEMATICS IN PRACTICE AND THEORY, Volume 41, Issue 7, pp.235-238, A Guide to the Core Journal of China (PKU)

Abstract:

In the paper, we introduce the error-sum function of expansion. The paper obtain the continuity and integral property.

Keywords:

Beta-expansion, Error-sum Function, Integral

155.解析的相位導數，全通濾波器和最小相位信號

黨培、錢濤

澳門科技大學　通識教育部

會議/刊物名稱：

IEEE 信號處理匯刊，第 59 卷，第 10 期，pp.4708-4718，2011 年 10 月，SCI-E 檢索

內容簡介：

信號分析中的全通濾波器和最小相位信號分別對應著複分析中的內函數以及外函數。但是對于一般的內函數以及外函數這一點并沒有給出證明。在數字信號處理裏面，與全通濾波器和最小相位信號有關的結果僅基于有理函數的學習。在這篇文章裏面，基于我們最近關于內函數的相位導數是正的這個結果，我們爲全通濾波器和最小相位信號建立了嚴格的理論基礎。特別地，我們考慮了無窮的 Blaschke 乘積和由奇异測度導出的一般的奇异內函數。很多對有理函數成立的結論被推廣到一般的內函數上。我們在離散和連續兩種情況下討論了以上內容。

關鍵詞：

全通濾波器、信號的振幅相位表示、解析信號、Blaschke 乘積、Hardy-Sobolev 空間、Hardy 空間、希爾伯特變換、內函數、瞬時頻率、最小相位信號、外函數

155.Analytic Phase Derivatives, All-Pass Filters and Signals of Minimum Phase

Dang, P (Dang Pei); Qina, T (Qian Tao)

Department of General Education, Macau University of Science and Technology

Name of Conference/Journal:

IEEE TRANSACTIONS ON SIGNAL PROCESSING, Volume 59, Issue 10, pp.4708-4718, OCT 2011, SCI-E indexed

Abstract:

It is accepted knowledge that inner functions and outer functions in complex analysis correspond, respectively, to all-pass filters and signals of minimum phase. The knowledge, however, has not been justified for general inner and outer functions. In digital signal processing the correspondence and related results are based on studies of rational functions. In this paper, based on the recent result on positivity of phase derivatives of inner functions, we establish the theoretical foundation for all-pass filters and signals of minimum phase. We, in particular, deal with infinite Blaschke products and general singular inner functions induced by singular measures. A number of results known for rational functions are generalized to general inner functions. Both the discrete and continuous signals cases are rigorously treated.

Keywords:

All-pass filter; Amplitude-phase representation of signal; Analytic signal; Blaschke product; Hardy-Sobolev space; Hardy space; Hilbert transform; Inner function; Instantaneous frequency; Minimum phase signal; Outer function

156.先秦文學元素論

李開

澳門科技大學　通識教育部

會議/刊物名稱：

南京大學學報（哲學·人文科學·社會科學），2011(4)，2011 年，中文核心期刊要目總覽(2008)，CSSCI 檢索

內容簡介：

先秦文學有四大構成元素：其一，神話。圖騰文化和神話對文學的影響巨大，它們是“文學”之“文”的來源，它們對文學的積淀會產生世代影響，甚至無處不在。其二，卜筮。甲骨龜卜文字往往是遠古文學的雛形，敘事“癸卯卜”一段，故事性很強；《周易》經文和卦爻辭不乏文學的“在場”，戰國楚竹簡一搶婚制字形可與《周易》相關文字互補，楚竹簡可擴大我們對先秦文學的視域。其三，愛欲。愛欲是文學的必備，楚竹簡《孔子詩論》“《關雎》以色俞(喻)于禮”是對愛欲的經典表述，孔子評《詩》71 處，多從美、善，並由觀民風民俗而深入至於“民性”。其四,文化.南北文化交流,造成共同的體認和語言表達；楚簡中豐富多元的“性” “氣” “禮” 論，既是文論規范，也是文學對象。

關鍵詞：

先秦文學、元素、神話、卜筮、愛欲

156.On Essential Factors of The Literature of Pre-Qhin Times

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Name of Conference/Journal:

Journal of Nanjing University(Philosophy, Humanities and Social Sciences), 2011(4), 2011, A Guide to the Core Journal of China (PKU), CSSCI indexed

Abstract:

Pre-Qin the literature is the origin of Chinese literature. Four essential factors is thing-in-itself of Pre-Qin the literature. First Chinese character of literature is decorative pattern of toten worship. Ancient myth is both literature and element of literature. It is found in Pre-Qin the literature everywhere. The literature which was in oracle bone inscriptions and in the writings of Eight Trigrams of divination using the alpine yarrow in The Book ZhouYi(《周易》) has great explanatory power and force. A Chinese character of grabbing of ancient marriage customs in the bamboo slips excavated at Chu graveyard can describe and expand explanatory ability. Confucian words that in The Book ShiJing GuanJu Poem(《詩經·關雎》) love and pornography were written according Chinese ancient moral principle Li(禮). Exchange of culture between south China and north China had formed identity of culture. We combine imparted and inherited documents with the bamboo slips excavated at Chu graveyard, and confine their plural components, and point out their general dimension.

Keywords:

The literature of Pre-Qhin times; Four essential factors of Pre-Qin the literature; Ancient myth; Divination using the alpine yarrow; Love and pornography; Culture; Cultural relics excavated from underground

157.楚簡拾詁三則

李開

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會議/刊物名稱：

中國文字研究，第 15 輯，pp.39-43，2011 年 12 月

內容簡介：

上博簡《衣》第 11 簡當爲“富貴過”， 當隸定爲“月”字，有“外”、“遠”之義。文章發掘簡書內證，以“日過”呼出“月過”，并指出秦漢間仍有“月過”說法。上博簡《孔子詩論》第 11 簡“ 者”，第 13 簡“ 乎”之“ ”字爲古代搶婚制字。主要從字形考其義，並由文獻申發之。新蔡簡甲三 35 號“穴熊”爲鬻熊，倚重字形而再考釋之。

關鍵詞：

楚簡；拾詁；“月過”；搶婚；“穴熊”

157.To Selectively Interpret Three Items that are Carved on Bamboo Slips Excavated

Li, K (Li Kai)

Department of General Education, Macau University of Science and Technology

Name of Conference/Journal:

The Study of Chinese Characters, Volume 15, DEC 2011

Abstract:

The Bamboo Slips in Shanghai Museum of Ziyi No.11 is “富貴月過”, that is writed as “月”, containing the meaning of “外” and “遠”. This article found some evidences from bamboo slips and pointed out that “月過” was still used in the dynasty of Qin Dynasty and of Han Dynasty. The Chinese characters “某” from the Bamboo Slips in Shanghai Museum of Kongzi Shilun (孔子詩論) No.11 “某者” and No.13 “某乎” are about archaic traditional wedding custom by which a man takes a woman for marriage by force. We mainly got the meaning of the Chinese characters “某” by studying its shape, and extended the meaning from some historical documents. The Xincai Bamboo Slips A3 No.35 the name “穴熊” is “鬻熊”. We also examine their meaning again according to the shape of the Chinese characters.

Keywords:

Chu Bamboo Slips; Annotations; “月過”; Marriage by capture; “穴熊”

158.清代江淮官話抄本韻書《同音畧解》

陳立中、余頌輝

澳門科技大學　通識教育部

會議/刊物名稱：

文史博覽 (理論)，2011(12)，pp.39-42，2011 年 12 月

內容簡介：

《同音畧解》是一部新發現的抄本江淮韻書，本文詳細考證了其成書年代，介紹了其體例，考察了其所反映的音系特征，認爲這本韻書對江淮官話的歷史研究具有重要的價值。

關鍵詞：

江淮官話、抄本、韻書、《同音畧解》

158.The Transcribed Rhyming Dictionary of the Qing Dynasty named Tongyinluejie

Chen, LZ (Chen Li-Zhong); Yu, SH (Yu Song-Hui)

Department of General Education, Macau University of Science and Technology

Name of Conference/Journal:

Culture And History Vision (Theory), 2011(12), DEC 2011

Abstract:

Tongyinluejie is a transcribed rhyming dictionary of the Qing dynasty that describes the phonology of a Jianghuai Mandarin. This paper gives a detailed textual research on the age of this book, introduces the edition system of it, and summarizes the features of the phonology it described. It is believed that this book has all important value for promoting the historical research of Jianghuai Mandarin.

Keywords:

Jianghuai Mandarin; Transcript; Rhyming Dictionary; Tongyinluejie

159.王端淑與《名媛詩緯初編》

張雁

澳門科技大學　通識教育部

會議/刊物名稱：

澳門科技大學學報，第 5 卷，第 1 期，pp.98-103，2011 年 6 月

內容簡介：

晚明時期所出現的大量女性詩歌總集、別集與選集，昭示了當時女性文學創作的繁榮與興盛。明末女詩人王端淑編纂《名媛詩緯》收錄了近千家明代女性詩人作品，洵爲明代女性作品之大觀。王端淑在編纂收錄女性作品的過程中，闡發了她的文學發展觀和審美觀，並從性別角度對女性文學創作的特點進行了總結與概括，勾畫了明代女性文學創作的歷程和圖景。

關鍵詞：

女性文學創作、王端淑、《名媛詩緯初編》

159.Duanshu Wang and The Preliminary Selection of Ladies' Poems

Zhang, Y (Zhang Yan)

Department of General Study, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Macau University of Science and Technology, Volume 5, Issue 1, pp.98-103, JUN 2011

Abstract:

A lot of collections of ladies' poems were printed in the later period of Ming Dynasty. The Preliminary Selection of Ladies' Poems edited by Duanshu Wang was famous for its considerable amount. In this selection, Wang illustrated her aesthetic views on literature, described the characteristic and the course of feminist literature of Ming Dynasty.

Keywords:

Feminist literature; Duanshu Wang; The Preliminary Selection of Ladies' Poems

160.自適應優化形態濾波算法消除圖像的脈沖噪聲

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會議/刊物名稱：

澳門科技大學學報，第 5 卷，第 2 期，pp.14-18，2011 年 12 月

內容簡介：

通過對優化形態濾波算法的分析，文章提出一種自適應優化算法。即通過對脈沖噪聲的處理模板進行自適應調節來實現更好的降噪效果。特別地對於噪聲密度較高（大於 30%）的退化圖像，自適應優化形態濾波算法的復原效果明顯好於原算法。實驗對二者復原圖像的信噪比（SNR）數據進行對比，驗證了新算法具有更好的還原效果。

關鍵詞：

優化形態濾波、信噪比、脈沖噪聲

160.Adaptive Optimal Morphological Filter to RemoveImpulse Noise in Images

Lu, XP (Lu Xiaoping)

Department of General Study, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Macau University of Science and Technology, Volume 5, Issue 2, pp.14-18, DEC 2011

Abstract:

In this paper a new adaptive optimal morphological filter (AOMF) algorithm as an improvement of optimal morphological filter (OMF) is proposed for removing the impulse noise in images. Especially this algorithm performs better when the restored image is corrupted by impulse noise (density larger than 30%). The experiments confirm this characteristic by comparing the Signal-to-Noise Ratio (SNR) of two algorithms to restore the corrupted images.

Keywords:

Optimal Morphological Filter; SNR; Impulse Noise

161.紀實與虛構的迷障：從《自傳の小說》與《漂流之旅》看李昂的陰性書寫

蕭寶鳳

澳門科技大學　通識教育部

會議/刊物名稱：

澳門科技大學學報，第 5 卷，第 2 期，pp.89-95，2011 年 12 月

內容簡介：

本文以李昂的小說《自傳の小說》與散文《漂流之旅》的互文空間爲分析依據，探討她對謝雪紅投入革命、追逐情欲與權欲的呈現所實踐的“陰性書寫”策略，從革命話語中女性身體解放與囚禁的悖論、女性集體逃與困的矛盾以及建構“台灣民族主義”陰性主體的寓言困境三個方面展開，探討李昂融合紀實與虛構、自傳與小說所建立的抵抗男性中心象徵秩序與語言秩序的文本審美空間，以及在“身體－國體”之間建立互相影射的寓言結構所隱含的意識形態盲點。

關鍵詞：

李昂、陰性書寫、《自傳の小說》、《漂流之旅》

161.Lost between Documentary and Fabrication:Focusing on Li-Ang's Ecriture Feminine in Novels Autobiography Fiction and Wandering Journey

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Department of General Study, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Macau University of Science and Technology, Volume 5, Issue 2, pp.89-95, DEC 2011

Abstract:

The essay is explores Li-Ang's ecriture feminine by analyzing the intertextuality and literary space in Autobiography の Fiction and Wandering Journey. Since 1990s, Feminine Writing has been one of the most heated phenomena in Taiwan literature. The essay scrutinizes the paradox of women body's freedom and confinement in revolutionary discourse centering on how Li-Ang describe Xie Xuehong's love affaire in her revolutionary career. Part Two examines the cunstruction of female subjectivity, Li-Ang's description of feminine consciousness awakening also shows multiple predicaments. In Part Three, the essay analyzes the relation between Li-Ang's female discourse and the national allegory about Taiwan. In sum, the essay demonstrates that these texts does have their own unique aesthetic features by integrating documentary and fabrication, autobiography and fiction. It also reminds the hazard of that if female subjectivity is subject to the "Taiwanese Nationalism", its aesthetic features and concern for minority might be lost.

Keywords:

Li-Ang; Feminine Writing; Taiwan literature

162.臨床試驗研究的障礙

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會議/刊物名稱：

自然，第 480 卷，第 7378 期，pp.S100，2011 年 12 月，SSCI 檢索，SCI-E 檢索

內容簡介：

本文根據個體化醫學的發展趨勢和中醫藥等亞洲傳統醫學的特點，對現行的解釋性隨機對照臨床試驗(ERCTs)和實用性隨機對照臨床試驗(PRCTs)提出了新模式，即個體化解釋性隨機對照臨床試驗(PERCTs)和個體化實用性隨機對照臨床試驗(PPRCTs)。根據試驗目的，現行的隨機對照試驗(RCTs)分爲解釋性隨機對照試驗(ERCTs)和實用性隨機對照試驗(PRCTs)兩類。前者是在嚴格控制試驗條件下評價所測試新藥治療某種疾病的有效性，但患者臨床應用該藥時的真實生活狀態與臨床試驗條件並不一定相符合; 後者是力求在患者的真實生活狀態條件下評價所測試新藥的效用，不需要對試驗條件加以嚴格限制。ERCTs 臨床試驗的信條是“平均標準病人”的概念, 即十分強調每位患者在罹患某種疾病時身體狀態的“同一性”,實際上幾乎不可能每位患者的體質和生活狀態等都是相同的，故 ERCTs 臨床試驗的設計原則並不是評價個體化醫學和亞洲傳統醫學“量體裁衣式”個體化診療方式的理想方法。PRCTs 獲得試驗結果的證據強度較弱，但能夠較好地反應患者的實際生活狀態。但是，二者均未能考慮不同個體患者基本的遺傳學特點-基因變異或基因型的差異性，而正是由於這種差異，有可能使臨床試驗中的某些特定患者對所測試的藥物沒有反應，甚至加重病情，因此有必要設計一種更爲縝密的臨床試驗新方法。

個體化醫學是現代醫學的發展方向，基於個體化醫學原則進行的臨床試驗,必須在確定納入標準時，對同一種疾病患者根據不同個體的基因變異或基因表型進行分組，而不能基於現行的隨機臨床試驗原則，僅僅根據臨床診斷標準和生物學檢查指標，以及性別、年齡等確定納入對象並進行分層隨機分組。因此，個體化醫學原則與現行隨機臨床試驗方法的結合，勢必導致個體化解釋性隨機對照臨床試驗(PERCTs)和個體化實用性隨機對照臨床試驗(PPRCTs)新模式的產生。 中醫學等亞洲傳統醫學診治疾病的方法，是根據患者全身各種各樣的症狀和體徵辨別每位患者獨有的“證型”，然後基於其“證型”進行“量體裁衣式”的治療，包括確定個體化治療原則、方劑與藥物、劑量與用法等,並在整個治療過程中加以修正。這種治療方法與藥物的複雜性和多變性，很難採用西醫學現行的隨機對照臨床試驗方法進行研究。個體化醫學與中醫學等亞洲傳統醫學的個體化診斷和治療方式有諸多相似之處。基於個體化醫學的臨床試驗研究設計方法在經過適當地修正後，能夠合理地評價亞洲傳統醫學治療的有效性和安全性，並能促進兩種醫學體系治療形式與方法的融合，造福於全人類。

關鍵詞：

臨床試驗、研究障礙

162.Perspective: The clinical trial barriers

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Name of Conference/Journal:

Nature, Volume 480, Issue 7378, pp.S100, Dec 2011, SSCI indexed, SCI-E indexed

Abstract:

According to the development trend of Personalized Medicine and the characteristics of Traditional Chinese Medicine (TCM) and other Traditional Asian Medicine, we has based on the current randomized controlled trials (RCTs) methods of explanatory randomized controlled trials (ERCTs) and pragmatic randomized controlled trials (PRCTs), and further proposed new clinical trials models of personalized explanatory randomized controlled clinical trials (PERCTs) and personalized practical randomized controlled trials (PPRCTs).

Based on the testing purpose, the current RCTs can be classified into two subtypes depending on what they seek to prove. ERCTs evaluate the efficacy of a pharmaceutical agent under highly controlled conditions that do not necessarily reflect real life. PRCTs assess the effectiveness of a treatment given in everyday situations, meaning that a less-than strict adherence to the treatment regiment is not a reason to exclude a subject. The rigidity of ERCTs has necessitated the concept of the 'average patient'. Yet such a patient does not really exist, and in real life no one will have the same body condition. Designing a trial in this manner is not ideal to assess personalized medicine and tailored-treatment of Traditional Asian Medicine (including TCM). PRCTs, on the other hand, generate weaker evidence but better reflect the circumstances of patients as they go about their daily lives. However, both RCTs fail to take into account of the different characteristics of individual patients-the basic genetic mutations or genotype differences, and because of these differences, it is possible that certain subgroup of patients do not response to the drug being tested in the clinical trials, or even get worsen after the treatment. Therefore, it is necessary to design more careful clinical testing methods.

Personalized medicine is the new direction of modern medicine. The design of clinical trials has to base on the principles of personalized medicine while defining the inclusion criteria. For example, subgrouping should be defined according to individual genetic variations or phenotypes, but not according to the current randomized principles of which diagnostic criteria is solely based on clinical examinations and biological indicators, as well as gender and age etc. for stratified randomization.

Hence, the integration of the principles of personalized medicine with the current randomized controlled trials will inevitably lead to the development of new model generation of PERCTs and PPRCTs. The diagnosis and treatment principles of Traditional Asian Medicine are based on a variety of systemic symptoms and signs in order to identify the unique pattern of each patient, the treatment method is then tailor-made based on the syndrome to determine the type of individual therapy, like

prescription of drugs, dosage and usage etc. In addition, the whole course of treatment will be amended with time, such treatment is full of complexity and variability, therefore, it is difficult to direct use the current Western Medicine RCTs research method to assess TCM and other Traditional Asian Medicine.

Personalized medicine and Traditional Asian medicine have many similarities on the individualized diagnosis and treatment principles. We believed that appropriate amendments of the clinical trial research design based on personalized medicine can reasonably evaluate the efficacy and safety of Traditional Asian Medicine and promote the integration of two kinds of medical treatment systems, for the benefit of humankind.

Keywords:

Clinical trial barriers

163.激活整合素能作爲炎症性疾病的替代療法

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會議/刊物名稱：

中國藥理學報，第 32 卷，第 11 期，pp.1309-1310，2011 年 11 月，SCI-E 檢索

內容簡介：

免疫系統的調節是一個十分複雜的過程，當中涉及了很多生物訊號份子的針對性相交及互動。舉例說，白血球細胞整合素 CD11b/CD18 在白血球的浸潤過程中起著重要作用，這種細胞整合素亦常見於炎症性疾病中。直至近期，Maiguel 等人發表一種研究白血球細胞整合素的新路向，即透過藥理激活白血球細胞整合素 CD11b/CD18，而非單純阻斷這種整合素的活性，這研究亦開明了一種有效治療炎症性疾病的新策略。(翻譯自原文 Integrin activation as an alternative treatment approach for inflammatory diseases)

關鍵詞：

整合素、炎症性疾病

163.Integrin activation as an alternative treatment approach for inflammatory diseases

Wong, VKW (Wong, Vincent Kam Wai); Liu, L (Liu, Liang)

State Key Laboratory of Quality Research in Chinese Medicines, Macau University of Science and Technology

Name of Conference/Journal:

Acta Pharmacologica Sinica, Volume 32, Issue 11, pp.1309-1310, Nov 2011, SCI-E indexed

Abstract:

Regulation of immune responses is a complex process that involves many signaling molecules in their specific interactions and interplays. For instance, the leukocytic integrin CD11b/CD18 plays a crucial role in leukocyte infiltration, which is commonly found in most inflammatory diseases. Recently, Maiguel and colleagues reported a new approach that involves the pharmacological activation, rather than blockade of CD11b/CD18 by small molecules, which has enlightened as promising treatment strategy for inflammatory diseases.

Keywords:

Integrin, inflammatory diseases

164.人參皂苷及其衍生物的抗癌活性構效研究

董行、白麗萍、黃錦偉、周華、王靜蓉、劉欣、姜志宏、劉良

澳門科技大學　中藥質量研究國家重點實驗室

會議/刊物名稱：

分子，第 16 卷，第 12 期，pp.10619-10630，2011 年 12 月，SCI-E 檢索

內容簡介：

人參是亞洲區內最常用的滋補藥材之一，主治多種疾病包括癌症。本研究旨在評價人參總皂苷提取物、原人參二醇型皂苷、原人參三醇型皂苷及其水解物對多種癌細胞的抑制作用。(詳細研究結果請參閱英文本)

關鍵詞：

人參皂苷、抗癌、細胞毒性、原人參二醇、構效活性關係

164.The in Vitro Structure-Related Anti-Cancer Activity of Ginsenosides and Their Derivatives

Dong, H (Dong, Hang); Bai, LP (Bai, Li-Ping); Wong, VKW (Wong, Vincent Kam Wai); Zhou, H (Zhou, Hua); Wang, JR (Wang, Jing-Rong); Liu, Y (Liu, Yan); Jiang, ZH (Jiang, Zhi-Hong); Liu, L (Liu, Liang)

State Key Laboratory of Quality Research in Chinese Medicines, Macau University of Science and Technology

Name of Conference/Journal:

Molecules, Volume 16, Issue 12, pp.10619-10630, Dec 2011, SCI-E indexed

Abstract:

Panax ginseng has long been used in Asia as a herbal medicine for the prevention and treatment of various diseases, including cancer. The current study evaluated the cytotoxic potency against a variety of cancer cells by using ginseng ethanol extracts (RSE), protopanaxadiol (PPD)-type, protopanaxatriol (PPT)-type ginsenosides fractions, and their hydrolysates, which were prepared by stepwise hydrolysis of the sugar moieties of the ginsenosides. The results showed that the cytotoxic potency of the hydrolysates of RSE and total PPD-type or PPT-type ginsenoside fractions was much stronger than the original RSE and ginsenosides; especially the hydrolysate of PPD-type ginsenoside fractions. Subsequently, two derivatives of protopanaxadiol (1), compounds 2 and 3, were synthesized via hydrogenation and dehydration reactions of compound 1. Using those two derivatives and the original ginsenosides, a comparative study on various cancer cell lines was conducted; the results demonstrated that the cytotoxic potency was generally in the descending order of compound 3 > 20(S)-dihydroprotopanaxadiol (2) > PPD (1) > 20(S)-Rh2 > 20(R)-Rh2 ≈ 20(R)-Rg3 ≈ 20(S)-Rg3. The results clearly indicate the structure related activities in which the compound with less polar chemical structures possesses higher cytotoxic activity towards cancer cells.

Keywords:

Ginsenosides, Anti-cancer, Cytotoxicity, Protopanaxadiol, Structure-related activity

165.芍藥甙對烏頭鹼急性毒性的減毒作用及伴隨的藥代動力學行爲變化

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會議/刊物名稱：

民族藥理學雜誌，2011 年 9 月，SCI-E 檢索

內容簡介：

民族藥理學意義: 研究中藥芍藥中主要活性成分芍藥苷對烏頭的主要活性及毒性成分烏頭鹼藥的代動力學和急性毒性的影響，爲闡明芍藥與烏頭合用的減毒作用提供科學依據。

材料與方法：SD 大鼠口服給予 200μg/kg 的烏頭鹼，或同時腹腔注射 20mg/kg 的芍藥苷，隨後取血漿採用超高效液相色譜串聯三重四極桿質譜儀（UHPLC-MS/MS）測定其中烏頭鹼的含量，分析測定烏頭鹼的藥代動力學參數。在烏頭鹼單獨口服或與芍藥苷合用時，測定烏頭鹼的半數致死時 LD50 和 ICR 小鼠的急性死亡率。

結果：成功建立微量血樣（12.5μL 血漿）中烏頭鹼含量測定的 UHPLC-MS/MS 方法，該方法靈敏，最低定量限爲 0.01ng/mL，也準確、精密、可靠，重復性良好。與單獨口服烏頭鹼的 SD 大鼠相比，同時腹腔注射芍藥苷的動物，其烏頭鹼最大血藥濃度（Cmax）顯著降低(5.69ng/mL vs 9.66ng/mL, $P<0.05$)，血藥濃度達峰時間（Tmax）明顯延遲（70min vs 46min, $P<0.05$），藥時曲線下面積（AUC0-t）也有減少的趨勢（1082.75ng-min/mL vs 1650.27ng-min/mL, $P=0.395$）。與單獨口服烏頭鹼的小鼠的 LD50（1.8mg/kg）相比，同時腹腔注射 120 或 240mg/kg 芍藥苷的動物，其 LD50 分別升高至 2.30 和 2.15mg/kg。當小鼠同時口服 1.8mg/kg 烏頭鹼和 240mg/kg 芍藥苷時，動物的死亡率爲 15%，顯著低於單獨口服 1.8mg/kg 烏頭鹼時的 500%（$P<0.05$）。

結論：芍藥苷可以顯著降低烏頭鹼的口服急性毒性，這可能與芍藥苷能改變烏頭鹼藥代動力學行爲有關。

關鍵詞：

烏頭鹼、芍藥苷、藥代動力學、急性毒性

165.Paeoniflorin reduced acute toxicity of aconitine in rats is associated with the pharmacokinetic alteration of aconitine

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Name of Conference/Journal:

Journal of Ethnopharmacology, Sept 2011, SCI-E indexed

Abstract:

ETHNOPHARMACOLOGICAL RELEVANCE:

To investigate the influence of paeoniflorin (major bioactive component of Paeonia lactiflora Pall.) on the pharmacokinetic behavior of aconitine (major toxic and bioactive component of Aconitum carmichaeli Debx.) and potential detoxifying effect of paeoniflorin on the acute toxicity of aconitine, which may provide in depth understanding to the toxicity reduction effect of Paeonia lactiflora to Aconitum carmichaeli.

MATERIALS AND METHODS:

Ultra high performance liquid chromatography coupled with triple quadrupole mass spectrometer (UHPLC-MS/MS) was employed to determine the plasma content of aconitine. Aconitine was administrated by oral to SD rats at the dosage of 200 μg/kg with or without paeoniflorin given by intraperitoneal injection at the dosage of 20mg/kg. Plasma samples were collected for determination and analysis of pharmacokinetic parameters of aconitine. The LD(50) of aconitine and acute animal death induced by aconitine were examined when aconitine was given alone or jointly with paeoniflorin in ICR mice.

RESULTS:

A sensitive, accurate, precise, reliable and repeatable UHPLC-MS/MS method was successfully established for determination of the plasma content of aconitine in 12.5 μL plasma sample. The lower limit of quantification of aconitine was 0.01ng/mL. Compared with the SD rats that were orally administrated with aconitine alone, the rats received aconitine and co-administrated with paeoniflorin by peritoneal injection showed a remarkably lower C(max) (5.69ng/mL vs 9.66ng/mL, $P<0.05$) and delayed T(max) (70min vs 46min, $P<0.05$), as well as a trend of reduction in AUC(0-t) (1082.75ng-min/mL vs 1650.27ng-min/mL, $P=0.395$). The LD(50) values of aconitine coadministered with 120 or 240mg/kg of paeoniflorin were obviously increased to 2.30 and 2.15mg/kg against 1.80mg/kg of aconitine by oral administration alone. Mice treated with paeoniflorin (240mg/kg) and aconitine (1.8mg/kg) together revealed a significant decreased death rate than that received aconitine treatment alone (15% vs 50%, $P<0.05$).

CONCLUSIONS:

The acute oral toxicity of aconitine in rats was significantly reduced by paeoniflorin; this might result

from the alterations of pharmacokinetic behavior of aconitine in the animals by coadministration of paeoniflorin.

Keywords:

Hydroxypropylmethylcellulose, Self-microemulsifying drug delivery systems, Poor soluble drugs, Dispersion tests, In vitro lipolysis model

166.艾灸對慢性疲勞大鼠免疫功能的影響

曾進、黃瑾、呂明莊

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會議/刊物名稱：

針灸臨床雜誌，第 27 卷，第 9 期，pp.56-59，2011 年 9 月

內容簡介：

目的：探討艾灸治療慢性疲勞綜合征(CFS)的可能機理。

方法：採用懸吊冷水游泳復合應激因素復制慢性疲勞動物模型，隨機分爲正常組、模型組、艾灸組。治療 12 天後作免疫功能相關指標檢測，同時作免疫組化及圖像分析。

結果：艾灸組的脾臟指數、脾淋巴細胞增殖轉化能力、血清白介素-2(IL-2)和腫瘤壞死因子-α(TNF-α)測定值與模型組相比較 $P<0.01$ 或 $P<0.05$;艾灸組與模型組相比較，IL-2 和 TNF-α 光密度降低，表達增強($P<0.01$)。

結論：艾灸能增強慢性疲勞大鼠的免疫功能，這可能是其治療 CFS 的機制之一。

關鍵詞：

慢性疲勞綜合征、艾灸、免疫功能、血清白介素-2、腫瘤壞死因子-α

166.The Effect of Moxibustion on Immune Function in Chronic Fatigue Rats

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Name of Conference/Journal:

Journal of Clinical Acupuncture and Moxibustion, Volume 27, Issue 9, pp.56-59, SEP 2011

Abstract:

Objective: To explore the possible mechanism on moxibustion for treating chronic fatigue syndrome.

Methods: The compound stress factors of suspension and cold water swimming were adopted in order to cop animal model of chronic fatigue, and they were randomly divided into the Normal Group, Model Group, Moxibustion Group. Treatment for 12 days after the immune function testing related indicators, at the same time as immunohistochemistry and image analysis.

Results: Moxibustion's spleen index, spleen lymphocyte proliferation capacity, serum IL-2 and tumor necrosis factor TNF-α in Value were compared with the model group (P<0.0l or P<0.05); Moxibustion Group compared with the model group, optical density of IL-2 and TNF-α are lower, and expression was enhanced (P < 0.01).

Conclusion: Moxibustion can enhance immune function of chronic fatigue rats. This may be one of the mechanisms in the treatment of CFS.

Keywords:

CFS; Moxibustion; Immune function; IL-2; TNF-α

167.澳門市售中成藥有機氯農藥殘留檢測

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會議/刊物名稱：

澳門理工學報，第 14 卷，第 1 期，pp.178-187，2011 年

內容簡介：

由於有機氯農藥殘留量是藥品安全與出口檢測的重要指標，而中國還欠缺中成藥中有機氯農藥殘留的具體標準，所以有必要對其做出調查和研究。因此，在 2007 年 9 月至 2008 月 3 月期間，本文對澳門市面出售之 231 個中成藥樣品中的 20 種有機氯農藥殘留做出檢測和分析。通過用醋酸乙酯對樣品進行超聲提取，用凝膠色譜樣進行色譜淨化，再利用弗羅里矽土固相萃取柱進行固相萃取，然後上 GC-ECD 檢測，而樣品中測得的呈陽性農藥需以 GC-MSD 確證。結果發現，21 個樣品檢出一種或以上有機氯農藥殘留，其檢出率爲 9%。所檢測出的農藥種類主要有三類，包括五氯硝基苯類（五氯硝基苯 PCNB、五氯苯胺 PCA、甲基五氯苯硫醚 PCTA），其次爲滴滴涕，第三類爲六氯苯，而檢出濃度在 10-220 μg/kg 之間。由此可見，部分澳門市售中成藥受到有機氯農藥的污染，促請澳門政府對市售中成藥加強監管及定期抽查，從而促進港澳中成藥廠對其產品進行嚴格的品質控制；同時，建議內地和澳門的衛生部門制定中成藥中有機氯農藥殘留量的具體標準。

關鍵詞：

中成藥、有機氯農藥殘留、氣相色譜、凝膠滲透色譜

167.Analysis of Organochlorine Pesticide Residues in Proprietary Chinese Medicines in Macao

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Name of Conference/Journal:

Journal of Macao Polytechnic Institute, Volume 14, No.1, pp.178-187, 2011

Abstract:

The limitation on the content of organochlorine pesticides in proprietary Chinese medicine constitutes an important regulation for their safety and export, but there is no standard in our country. From September 2007 to March 2008 we analyzed 231 kinds of proprietary Chinese medicines in the Macao market for 20 organochlorine pesticides residues using gas chromatography-electron capture detector (GC-ECD). The samples were extracted with ethyl acetate ultrasonically before solid-phase extraction in a Florisil column followed by clean up using gel permeation chromatography. Pesticide residues were detected by GC-ECD and the positive pesticides were confirmed and identified gas chromatography-mass spectrometry. 21 samples (9%) were found to contain organochlorine pesticide residues. Three groups of pesticides were detected, including Quintozene (Quintozene, Pentachloroaniline and Pentachlorothioanisole), Dichlorodiphenyltrichloroethane (DDT) and Hexachlorobenzene. The detected concentrations were between 10-220 μg/kg. Our results showed that some proprietary Chinese medicines in the Macao local market were contaminated with organochlorine pesticides. Therefore, more supervision and regulate spot checks should be implemented in order to promote strict quality control and safety in the Hong Kong and Macao manufacturing industry. It is suggested that the Ministry of Health, PRC and Macao Health Bureau should work together to establish a standard for testing organochlorine pesticide residues in proprietary Chinese medicines.

Keywords:

Proprietary Chinese medicines, Organochlorine pesticide residues, Gas chromatography, Gel permeation chromatography

168.化學計量學中單獨硬模和聯合硬模在識別不同樣品中的應用

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會議/刊物名稱：

澳門科技大學學報，第 5 卷，第 1 期，pp.16-25，2011 年 6 月

內容簡介：

模型化是應用統計學和數學的方法來分析樣品數據和樣品類別之間關係的技術，它在化學計量學的模式識別特別是樣品分類中起著重要的作用。因爲樣品的分類是根據模型來對未知樣品進行歸類，所以不恰當的模型可能導致未知樣品的錯誤分類和產生錯誤的結論。爲了給不同的樣品分類確定合適和穩定的模型，在本文中講述和評估單獨模化和聯合模化這兩種技術。單獨模化是單獨給每一類樣品建模然後把所有的獨立模型進行合併和用聯合判定函數用於對樣品進行分類，而聯合模化是對所有類型的樣品進行模化和用二元判別分析法對樣品進行分類。由於潛在變量的應用，因此重複的輔助程序用於優化潛在變量的數量。爲了評估單獨模型和聯合模型的應用性和穩定性，已知樣品被隨機分爲訓練樣品和測試樣品分別用於建立模型和測試模型。單獨模型或者聯合模型的總體性能是由隨機產生的 100 個模型的平均性能所決定的。模型的具體應用性和穩定性是用不同的性能指數表達出來。在本文中，聚合物樣品和藥片樣品用於舉例說明各種模化方法，推測能力和分類率指數用於評價模型的性能。比較不同的模型，獨立模型更加靈活穩定和適用於不同結構樣品的分類，而聯合模型能更簡單快捷地區分不同種類的樣品。

關鍵詞：

模化、單獨模型和聯合模型、樣品分類、二元判別分析法、模式識別、化學計量學

168.Application of Disjoint and Conjoint Hard Models for Classification of Different Samples using Chemometric Pattern Recognition

Li, D (Li Dong); Lam, WK (Lam Wai-Kei)

MIAR, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Macau University of Science and Technology, Vol.5, No.1, pp.16-25, Jun 2011

Abstract:

Modelling which plays an important role in classification applied for chemometric pattern recognition involves extracting relationship between interesting properties of samples (class memberships of samples) and analytical data (measurements of samples) using statistical and mathematical methods. Because classification involves determining whether unknown samples can be assigned to one or more predefined groupings according to the models, unknown samples may be misclassified and converse conclusion may be drawn unless proper models are formed prior to classification. In order to determine feasible and stable models for different studies, disjoint and conjoint hard Principal Component (PC) modelling (disjoint and conjoint modelling) which require samples to be uniquely assigned to a specific class (or group) are described and estimated in this paper. Disjoint modelling involves developing independent PC models for each class ('in group') and all 'in group' models are combined together using statistical methods, whereas conjoint model perform Principal Component Analysis (PCA) on the entire dataset so as to form a model. The number of PCs for each model is optimised using 200 bootstraps. A joint decision function combined by D statistic (one-class Quadratic Discriminant Analysis) and Q statistic (square prediction error) is regarded as disjoint classifier to classify each sample in disjoint study, whereas multi-class Quadratic Discriminant Analysis (QDA) is applied as conjoint classifier. Model performance is assessed on 100 test sets using different iterative splits and a couple of performance indices are used to estimate the applicability and stability of the models. The methods are illustrated using two different datasets including 293 samples from nine polymeric groups obtained using thermal profiling and 75 samples from three types of pharmaceutical tablets obtained using LC-MS profiling. For the classification of polymeric samples, disjoint model is more feasible and stable for the separation of different polymeric groups and the prediction of unknown polymers with higher %PA (Predictive ability) and %CR (Classification Rate). For the classification of tablet samples, the %PA and %CR show that the separation of different types of tablets are clear using both models although disjoint model also has higher %PA and %CR. Comparing with disjoint model and conjoint model, disjoint model has advantage of forming flexible and stable models to group unknown samples to one of known classes that may have very different structures, whereas conjoint model is more useful to examine the differences between classes as it is simpler and faster.

Keywords:

Modelling, Disjoint and Conjoint Hard PC models, Classification, Quadratic Discriminant Analysis, Pattern Recognition, Chemometrics

169.總體模型在交互分類中的應用

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會議/刊物名稱：

澳門理工學院學報 (英文)，2011 年第 1 期 (總第 5 期), pp.105-120

內容簡介：

本文描述了一種能在交互分類中應用的模型化方法。該法能在不同的實驗中找出共同的成分以便應用於交互分類。使用峰測試和匹配法，小鼠的年齡和壓力樣品組成一個總的峰矩陣，其中年齡樣品部分形成總體峰矩陣，而壓力樣品部分組成交互峰矩陣。使用峰測試和匹配法，小鼠的年齡樣品組成一個局部峰矩陣。總體和局部模型是在總體和局部峰矩陣的基礎上形成，其中總體模型能夠作用於交互峰矩陣進行交互分類。爲了減少模型的維數，主成份分析法應用於建模，其主成份的數量由誤差比值循環法確定。多種類二元判別分析法根據樣品跟各個類別的重心距離對樣品進行分類。已知樣品被隨機分爲訓練樣品和測試樣品分別用於建立模型和測試模型。單獨模型或者聯合模型的總體性能是由隨機產生的 100 個模型的平均性能所決定的。模型的具體應用性和穩定性是用不同的性能指數表達出來。在本文中，小鼠的年齡和壓力樣品用於舉例說明總體和局部模化法，推測能力和分類率指數用於評價模型的性能。總體模型比局部模型有更好的性能和能應用於交互分類。不考慮總體模型的誤識率，所有的壓力樣品能夠正確得被總體模型在交互分類中所識別。

關鍵詞：

模化、總體模型、樣品交互分類、二元判別分析法、模式識別、化學計量學

169.Application of Global Model for Classification across Different Experimental Studies

Li, D (Li Dong); Lam WK (Lam Wai-Kei)

MIAR, Macau University of Science and Technology

Name of Conference/Journal:

Journal of Macao Polytechnic Institute (English), 2011 Issue (Serial No.5), pp.105-120

Abstract:

A new modelling approach for classification across different experimental studies is described in this paper. It involves extracting common components present in different experiments to form a global model for cross experimental study and a local model being constructed for comparison. In order to reduce the dimensionality of models, Principal Component Analysis (PCA) is applied to construct Principal Component (PC) models, the number of PCs being optimised by the ratio of the Predicted Residual Error Sum of Squares (PRESS) to the Residual Sum of Squares (RSS) using 200 bootstrap repetitions. The multi-class Quadratic Discriminant Analysis (QDA) classifier is applied for different two-class classifications, the assignment of samples depending upon the smallest distance of the samples to the centroid of the classes. Model performance is assessed through 100 test sets using different iterative splits and two performance indices. Compared to the local model consisting of the same samples, the global model displays better performance and most stress samples can be correctly assigned to their own class.

Keywords:

Modelling, global models, Classification across different experiments, Quadratic Discriminant Analysis, Pattern Recognition, Chemometrics

170.被白細胞介素 IL-12 家族的細胞因子 IL-27 對嗜酸性粒細胞的激動作用：IL-27 對過敏性反應多效作用的影響

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會議/刊物名稱：

免疫生物學，第 216 卷，第 1-2 期，pp.54-65，2011 年 1-2 月，SCI-E 檢索

內容簡介：

白細胞介素 IL-27 是 IL-12 家族中的一種新型細胞因子，它對 T 淋巴細胞、B 淋巴細胞和肥大細胞的免疫調節作用研究較爲普遍。IL-27 能夠抑制 Th2 介導的過敏性疾病的小鼠模型，然而 IL-27 對過敏性疾病的主要效應嗜酸性粒細胞的作用之前卻無人研究。我們現在研究發現嗜酸性粒細胞能夠持續表達功能性 IL-27 受體的異型二聚體：gp130 和 WSX-1。IL-27 能夠通過減少細胞凋亡而延長嗜酸性粒細胞的存活時間，調節粘附分子的表達來增加嗜酸性粒細胞的粘附和積累，並誘導促炎癥細胞因子 IL-6，腫瘤壞死因子 TNF-α，IL-1β 和趨化因子 CCL2、CXCL8 和 CXCL1 的釋放。IL-27 對嗜酸性粒細胞的激動作用不能被 Th2 細胞因子 IL-25，造血性細胞因子粒細胞巨噬細胞集落刺激因子和 toll 樣受體 4 的配體脂多糖(LPS)所終止。這些發現不同於 IL-27 和 LPS 對單核細胞的作用。細胞內信號機制的研究顯示 IL-27 介導的嗜酸性粒細胞能夠被不同的細胞外信號調節激酶：c-Jun 氨基末端激酶，p-38 絲裂原活化蛋白激酶和核因子 κB 所激活。基於以上結果，IL-27 能夠通過不同的細胞外信號級聯反應而激活嗜酸性粒細胞，從而對過敏性疾病產生重要作用效果。所以，由於研究發現 IL-27 對人嗜酸性粒細胞的激活作用，IL-27 可能在人體過敏反應中具有多效性作用。

關鍵詞：

細胞凋亡、趨化因子、細胞因子、嗜酸性細胞、訊號傳遞

170.Activation of Eosinophils by IL-12 Family Cytokine IL-27: Implications of the Pleiotropic Roles of IL-27 in Allergic Responses

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Name of Conference/Journal:

Immunobiology, Volume 216, Issue 1-2, pp.54-65, Jan-Feb 2011, SCI-E indexed

Abstract:

Interleukin (IL)-27 is a novel IL-12 family cytokine and its immunomodulatory effects on T-lymphocytes, B-lymphocytes and mast cells were extensively studied. IL-27 could suppress Th2-mediated allergic diseases in mouse models. However, the role of IL-27 on eosinophils, the principal effector cells in allergic diseases, remains unexplored. Our present study revealed that eosinophils constitutively express functional IL-27 receptor heterodimer, gp130 and WSX-1. IL-27 could prolong eosinophil survival by reducing apoptosis, modulate the expression of adhesion molecules to facilitate eosinophil adhesion and accumulation, and induce the release of proinflammatory cytokines IL-6, tumor necrosis factor-α, IL-1β and chemokines CCL2, CXCL8 and CXCL1. The stimulation effects of IL-27 on eosinophils could not be abrogated by Th2 cytokine IL-25, hematopoietic cytokine granulocyte macrophage colony-stimulating factor, and toll-like receptor 4 ligand lipopolysaccharide (LPS). These findings are different from the effects of IL-27 and LPS on monocytes. Intracellular signaling mechanistic studies showed that IL-27-mediated eosinophil activation was differentially regulated by the activation of extracellular signal-regulated kinase, c-Jun N-terminal kinase and p38 mitogen-activated protein kinase, as well as nuclear factor-κB. Based on the above results, IL-27 could play crucial roles in allergic diseases by the activation of eosinophils via differential intracellular signaling cascades. According to the present findings of its activating effects on human eosinophils, IL-27 may play pleiotropic roles in human allergic responses.

Keywords:

Apoptosis, Chemokines, Cytokines, Eosinophils, Signal transduction

171.中草藥青藤城和兩妙散對腫瘤壞死因數(TNF)-α啓動人的類成纖維細胞滑膜細胞在類風濕性關節炎的抗炎活性

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會議/刊物名稱：

民族藥理學雜誌，第 137 卷，第 1 期，pp.457-468，2011 年 9 月，SCI-E 檢索

內容簡介：

目的：

青藤城，一種從青藤屬防己科的根中分離出的生物鹼，被用於減輕風濕性疾病症狀。兩妙散(LMS)是一種傳統的中藥複方，由蒼術和黃柏組成，也被用於治療類風濕病。儘管大量研究表明青藤城和 LMS 具有潛在的抗炎活性，但是青藤城和 LMS 對人體主要類成纖維細胞(FLS)調節風濕病患者和正常對照組的抗炎活性的根本細胞內調節機制尚未闡明。

方法：

我們利用炎症細胞因數 TNF-α 介導的正常人和風濕性病患者的類成纖維細胞，研究了青藤城和 LMS 的體外抗炎活性。利用流式細胞儀定量分析了基本的細胞內信號分子。

結果：

青藤城可以顯著抑制 TNF-α 誘導的血管細胞粘附分子 VCAM-1 的細胞表面表達，同時從正常組和風濕病患者組的 FLS 中釋放炎症因數和趨化因數白介素－6(IL-6)，CCL2 和 CXCL8 ($p<0.05$)。另外，青藤城對 TNF-α 誘導的類風濕性關節炎患者的 FLS 中 VCAM-1 表達和 IL-6 釋放的抑制作用顯著高於正常組的 FLS($p<0.05$)。兩妙散顯著抑制了正常組和 RA 組 FLS 中 TNF-α 誘導的炎癥趨化因子 CXCL10 和 CCL5 的釋放，其中相對於正常組，RA 組的 FLS 中 CXCL10 的分泌作用被抑制地更顯著($p<0.05$)。更多研究發現，青藤城和 LMS 都能顯著抑制 TNF-α 誘導的抑製因子 κBα 的磷酸化和細胞外信號調節蛋白激酶，這種激酶是中心信號分子介導 TNF-α 誘導的 VCAM-1 的表達和趨化因子的產生。

結論： 所以我們的研究結果通過在 RA 組調節不同細胞內信號通路，從而抑制 TNF-α 激動的 FLS 的青藤城和兩妙散的不同抗炎活性提供了新的見解。

關鍵詞：

細胞因子、兩妙散、類風濕性關節炎、訊號傳遞、青藤城、腫瘤壞死因子

171.Anti-inflammatory Activities of Chinese Herbal Medicine Sinomenine and Liang Miao San on Tumor Necrosis Factor-α-activated Human Fibroblast-like Synoviocytes in Rheumatoid Arthritis

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Name of Conference/Journal:

Journal of Ethnopharmacology, Volume 137, Issue 1, pp.457-468, Sep 2011, SCI-E indexed

Abstract:

AIM OF THE STUDY:

Sinomenine, an alkaloid isolated from the root of Sinomenium acutum, has been used to alleviate the symptoms of rheumatic diseases. Liang Miao San (LMS), composed of the herbs Rhizoma Atractylodis (Cangzhu) and Cotex Phellodendri (Huangbai), is another traditional Chinese medicine formula for rheumatoid arthritis (RA) treatment. Although numerous studies have demonstrated the potential anti-inflammatory activities of sinomenine and LMS, the underlying intracellular mechanisms regulating the anti-inflammatory activities of sinomenine and LMS on human primary fibroblast-like synoviocytes (FLS) from RA patients and normal control subjects have not been elucidated.

MATERIALS AND METHODS:

We investigated the in vitro anti-inflammatory activity of sinomenine and LMS on inflammatory cytokine tumor necrosis factor (TNF)-α-mediated activation of human normal and RA-FLS. The underlying intracellular signaling molecules were analyzed quantitatively using flow cytometry.

RESULTS:

Sinomenine was found to significantly inhibit TNF-α induced cell surface expression of vascular cell adhesion molecule (VCAM)-1 and release of inflammatory cytokine and chemokine IL-6, CCL2 and CXCL8 from both normal and RA-FLS (all $p < 0.05$). Moreover, the suppression of sinomenine on TNF-α induced VCAM-1 expression and IL-6 release of RA-FLS was significantly higher than that of normal FLS ($p < 0.05$). LMS significantly inhibited TNF-α-induced inflammatory chemokines CXCL10 and CCL5 release from both normal and RA-FLS, with significantly higher suppression on CXCL10 secretion in RA-FLS than that of normal FLS (all $p < 0.05$). Further investigations showed that sinomenine and LMS could significantly suppress TNF-α-induced phosphorylation of inhibitor κBα and extracellular signal-regulated protein kinase, the central signaling molecules mediating TNF-α-induced VCAM-1 expression and chemokine production.

CONCLUSION:

Our results therefore provide a new insight into the differential anti-inflammatory activities of sinomenine and LMS through the suppression of TNF-α-activated FLS by modulating distinct intracellular signaling pathways in RA.

Keywords:

Cytokines, Liang Miao San, Rheumatoid arthritis, Signal transduction, Sinomenine, Tumor necrosis factor-α

172.類風濕性關節炎中的尿酸結晶對人成纖維樣滑膜細胞的激動作用

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會議/刊物名稱：

細胞及分子免疫學，第 8 卷，第 6 期，pp.469-478，2011 年 11 月，SCI-E indexed

內容簡介：

高尿酸血症會引起尿酸結晶的形成，並可能通過炎症引發的自身免疫反應而造成關節炎和關節損傷，但是由尿酸結晶介導啓動的成纖維樣滑膜細胞(FLS)對類風濕性關節炎(RA)的免疫病理學影響和潛在的細胞內調控機制，現在還沒能得到闡明。所以，我們研究了單體以及結合了腫瘤壞死因數 TNF-α 或者白細胞介素 IL- 1β 的尿酸鈉晶體的體外作用，對類風濕病人和正常對照組的人成纖維樣滑膜細胞，以及治療尿酸晶體時潛在的細胞內信號調節機制進行了啓動作用的研究。尿酸鈉晶體能夠顯著增加炎症細胞因子 IL-6、趨化因子 CXCL8 和基質金屬蛋白酶 MMP-1 的釋放(所有值 $p<0.05$)。另外，在正常對照組和類風濕性關節炎組的尿酸鈉結晶與 TNF-α 或 IL- 1β 的聯合治療中，我們研究發現通過釋放 IL-6、CXCL8 和 MMP-1 會產生 FLS 上的加成或協同作用。進一步實驗表明，所檢測的炎症因子、趨化因子和 MMP-1 由於尿酸鈉晶體的激發而釋放的現象，是分別通過細胞內激動的細胞外信號調控激酶和 c-Jun 氨基末端激酶通路而不是 p38 絲裂原激酶啓動的蛋白激酶通道所調控的。所以，我們研究結果爲尿酸晶體啓動的，並通過不同細胞內信號傳導通路介導的類風濕性關節炎的免疫病理學機制提供了新的見解。

關鍵詞：

細胞因子、纖維樣滑膜細胞、類風濕性關節炎、訊號傳遞、尿酸

172.Activation of Human Fibroblast-like Synoviocytes by Uric Acid Crystals in Rheumatoid Arthritis

Chen, DP (Chen, Da P.); Wong, CK (Wong, Chun K.); Tam, LS (Tam, Lai S.); Li, EK (Li, Edmund K.); Lam, CWK (Lam, Christopher W. K.)

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Name of Conference/Journal:

Cellular and Molecular Immunology, Volume 8, Issue 6, pp.469-478, Nov 2011, SCI-E indexed

Abstract:

Hyperuricemia-mediated uric acid crystal formation may cause joint inflammation and provoke the destruction of joints through the activation of inflammasome-mediated innate immune responses. However, the immunopathological effects and underlying intracellular regulatory mechanisms of uric acid crystal-mediated activation of fibroblast-like synoviocytes (FLS) in rheumatoid arthritis (RA) have not been elucidated. Therefore, we investigated the in vitro effects of monosodium urate crystals, alone or in combination with the inflammatory cytokines tumor-necrosis factor (TNF)-α or interleukin (IL)-1β, on the activation of human FLS from RA patients and normal control subjects and the underlying intracellular signaling mechanisms of treatment with these crystals. Monosodium urate crystals were able to significantly increase the release of the inflammatory cytokine IL-6, the chemokine CXCL8 and the matrix metalloproteinase (MMP)-1 from both normal and RA-FLS (all $P < 0.05$). Moreover, the additive or synergistic effect on the release of IL-6, CXCL8 and MMP-1 from both normal and RA-FLS was observed following the combined treatment with monosodium urate crystals and TNF-α or IL-1β. Further experiments showed that the release of the measured inflammatory cytokine, chemokine and MMP-1 stimulated by monosodium urate crystals were differentially regulated by the intracellular activation of extracellular signal-regulated kinase and c-Jun N-terminal kinase pathways but not the p38 mitogen-activated protein kinase pathway. Our results therefore provide a new insight into the uric acid crystal-activated immunopathological mechanisms mediated by distinct intracellular signal transduction pathways leading to joint inflammation in RA.

Keywords:

Cytokines, Fibroblast-like synoviocytes, Rheumatoid arthritis, Signal transduction, Uric acid

173.在長期腹膜透析患者的心臟衰竭：4 年的前瞻性分析

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會議/刊物名稱：

美國腎科學會臨床雜誌，第 6 卷，第 4 期，pp.805-812，2011 年 4 月，SCI-E 檢索

內容簡介：

背景和目的：

心力衰竭頻繁發生在終末期腎病患者中。但是，沒有前瞻性的、縱向隨訪資料來研究長期腹膜透析(PD)患者的患病率，嚴重程度及風險因素。

設計，設置，參與者和測量：

我們進行了一項包括 220 例長期 PD 病人連續 4 年或直至死亡的前瞻性觀察研究。在基線水準獲得超聲心動圖。主要研究終點爲心臟衰竭和死亡率。

結果：

88 名患者在進入研究以前有心臟衰竭病史。有和沒有心臟衰竭病史的患者累計 4 年的生存概率分別爲 37.4%和 64.7%（P＜0.0001）。隨訪期間，87 例（40.9%）發生心臟衰竭，其中 53 例復發和 34 新發心臟衰竭。糖尿病、動脈粥樣硬化血管疾病、收縮期高血壓、左心室（LV）品質指數、心臟收縮功能障礙和低蛋白血症是顯著的危險因素，可以預測心臟衰竭。糖尿病和 LV 的品質和體積指數顯著性預測新發心臟衰竭。收縮期高血壓，LV 品質指數和低蛋白血症顯著性預測復發心臟衰竭。

結論：

心臟衰竭是長期 PD 患者一個非常普遍的併發症，並預測不良臨床後果。對於 PD 患者，應更多地注意改善 BP，並確定治療策略，有效地降低動脈粥樣硬化的負擔，並逆轉左室肥厚、重構，收縮功能障礙。

關鍵詞：

心臟衰竭、末期腎病、腹膜透析、縱向分析

173.Heart Failure in Long-term Peritoneal Dialysis Patients: a 4-year Prospective Analysis

Wang, AYM (Wang, Angela Yee-Moon); Wang, M (Wang, Mei); Lam, CWK (Lam, Christopher Wai-Kei); Chan, IHS (Chan, Iris Hiu-Shuen); Lui, SF (Lui, Siu-Fai); Sanderson, JE (Sanderson, John E.)

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Name of Conference/Journal:

Clinical Journal of the American Society of Nephrology, Volume 6, Issue 4, pp.805-812, Apr 2011, SCI-E indexed

Abstract:

BACKGROUND AND OBJECTIVES:

Heart failure occurs frequently in end-stage renal disease patients. However, there are no prospective, longitudinal follow-up data on its prevalence, severity, and risk factors in long-term peritoneal dialysis (PD) patients.

DESIGN, SETTING, PARTICIPANTS and MEASUREMENTS:

A prospective observational study was conducted in 220 long-term PD patients followed up for 4 years or until death. Echocardiography was obtained at baseline. Primary study end points were heart failure and mortality.

RESULTS:

Eighty-six patients had a previous history of heart failure at study entry. The cumulative 4-year survival probability was 37.4% and 64.7% for patients with and without previous heart failure, respectively ($P < 0.0001$). During follow-up, 87 patients (40.9%) developed heart failure, of which 53 were recurrence and 34 were new-onset heart failure. Diabetes, background atherosclerotic vascular disease, systolic hypertension, left ventricular (LV) mass index, systolic dysfunction, and hypoalbuminemia were significant risk factors predicting heart failure in the entire cohort. Diabetes and LV mass and volume index were significant predictors of new-onset heart failure. Systolic hypertension, LV volume index, and hypoalbuminemia were significant predictors of recurrent heart failure.

CONCLUSIONS:

Heart failure is a highly prevalent complication in long-term PD patients and predicts adverse clinical outcomes. More attention should be focused on improving BP and volume control and identifying treatment strategies that effectively lower atherosclerotic burden and reverse LV hypertrophy, remodeling, and systolic dysfunction in PD patients.

Keywords:

Heart failure, End-stage renal disease, Pertioneal dialysis, Prospective Analysis

174.氧化應激和糖尿病

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會議/刊物名稱：

臨床化學與檢驗醫學，第 49 卷，第 11 期，pp.1773-1782，2011 年 11 月，SCI-E 檢索

內容簡介：

越來越多的證據表明，氧化應激在糖尿病（DM）的發病中起著主要作用。氧化應激是糖尿病併發症潛在的的致病因素。由環境因素，如電離輻射及化學致癌物，並通過內源性過程，包括在線粒體能量代謝，產生活性氧（ROS）。內生或外生產生的 ROS 都可以同時攻擊活細胞中的脂肪，蛋白質和核酸。有許多潛在的機制使多餘的葡萄糖代謝產物，通過這些途徑促進糖尿病併發症的發展，並導致胰腺 β 細胞的損傷。然而，所有這些途徑中共同形成的過剩的 ROS，隨著時間的推移，會導致慢性氧化應激，這反過來又導致有缺陷的胰島素基因表達和胰島素分泌以及細胞凋亡增加。確定細胞氧化應激的生物標誌物的各種方法已經開發，有的已提出敏感的抗氧化防禦和氧化損傷在糖尿病及其併發症的評估。然而，由於缺乏最佳的標準化技術和足夠的大型、多標準試驗，其臨床效用是有限的。

關鍵詞：

葡萄糖代謝產物、糖尿病、氧化應激、活性氮及氧化合物

174.Oxidative Stress and Diabetes Mellitus.

Yang, H (Yang, Hui); Jin, X (Jin, Xun); Lam, CWK (Lam, Christopher Wai Kei); Yan, SK (Yan, Sheng-Kai)

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Name of Conference/Journal:

Clinical Chemistry and Laboratory Medicine, Volume 49, Issue 11, pp.1773-1782, Nov 2011, SCI-E indexed

Abstract:

Increasing evidences have suggested that oxidative stress plays a major role in the pathogenesis of diabetes mellitus (DM). Oxidative stress also appears to be the pathogenic factor in underlying diabetic complications. Reactive oxygen species (ROS) are generated by environmental factors, such as ionizing radiation and chemical carcinogens, and also by endogenous processes, including energy metabolism in mitochondria. ROS produced either endogenously or exogenously can attack lipids, proteins and nucleic acids simultaneously in living cells. There are many potential mechanisms whereby excess glucose metabolites traveling along these pathways might promote the development of DM complication and cause pancreatic β cell damage. However, all these pathways have in common the formation of ROS, that, in excess and over time, causes chronic oxidative stress, which in turn causes defective insulin gene expression and insulin secretion as well as increased apoptosis. Various methods for determining biomarkers of cellular oxidative stress have been developed, and some have been proposed for sensitive assessment of antioxidant defense and oxidative damage in diabetes and its complications. However, their clinical utility is limited by less than optimal standardization techniques and the lack of sufficient large-sized, multi-marker prospective trials.

Keywords:

Advanced glycation endproducts, Diabetes mellitus, Oxidative stress, Reactive nitrogen species, Reactive oxygen species

175.香港家庭與兒童哮喘的變應原

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會議/刊物名稱：

兒童肺科雜誌，第 46 卷，第 7 期，pp.632-639，2011 年 7 月，SCI-E 檢索

內容簡介：

室內吸入性過敏原暴露增加白種人的哮喘症狀，但其決定因素與亞洲人哮喘和過敏的關係尚不清楚。這項研究調查了 115 個有哮喘病兒童的香港家庭裡貓、蟑螂和 Blomia tropicalis 過敏原的暴露。對患者進行呼出的一氧化氮和肺功能測量。記錄了 2 個星期內的家訪，在此期間，父母完成了標準化的問卷。通過免疫測定了從病人的床墊、臥室地板、客廳地板收集的塵埃樣本的 Fel d 1、Bla g 2 和 Blo t 5。這些變應原只在一些家庭中(38-55% for Fel d 1; 9-21% for Bla g 2, and 7-14% for Blo t 5) 檢測到。貓和/或狗的存在是所有的室內場地 Fel d 1 產生一個強大的決定性因素。床上用品變化的時間和頻率與 Bla g 2 的水準相關，而臥室的地板清潔的時間是 Blo t 5 水準一致的因素。在過去 12 個月中，與正常接觸過敏原的哮喘患兒相比，在高過敏原暴露的家庭更易發生超過≥4 次的哮喘和運動誘發的哮喘(P＝0.051 and 0.030, respectively)。床墊的所有三個過敏原水準也與一些過敏症狀的嚴重程度相關 (P＝0.025-0.005)。這些變應原與一氧化氮和肺功能參數不相關。這項研究確定了有哮喘病兒童的香港家庭與哮喘患兒貓、蟑螂和 B. tropicalis 水準的決定因素。這些風險與嚴重的過敏症。

關鍵詞：

空氣致敏原、哮喘、呼氣、氧化氮、塵埃

175.Domestic Exposure to Aeroallergens in Hong Kong Families with Asthmatic Children

Leung, TF (Leung, Ting F.); Wong, YS (Wong, Yun S.); Chan, IHS (Chan, Iris H. S.); Yung, E (Yung, Edmund); Sy, HY (Sy, Hing Y.); Lam, CWK (Lam, Christopher W. K.); Wong, GWK (Wong, Gary W. K.)

MIAR, Macau University of Science and Technology

Name of Conference/Journal:

Pediatric Pulmonology, Volume 46, Issue 7, pp.632-639, Jul 2011, SCI-E indexed

Abstract:

Indoor aeroallergen exposures increased asthma symptoms in Caucasians, but their determinants and relationship to asthma and allergy in Asians are unclear. This study investigated exposures to cat, cockroach, and Blomia tropicalis allergens in 115 Hong Kong families with asthmatic children. Patients underwent exhaled nitric oxide and spirometric measurements. Home visits were made within 2 weeks during which parents completed a standardized questionnaire. Fel d 1, Bla g 2, and Blo t 5 in dust samples collected from patients' mattresses, bedroom floors, and living room floors were measured by immunoassays. These aeroallergens were only detectable in some homes (38-55% for Fel d 1; 9-21% for Bla g 2, and 7-14% for Blo t 5). The presence of cat and/or dog was a strong determinant for Fel d 1 in all indoor sites. The timing and frequency of bedding change was associated with Bla g 2 levels, whereas the timing of bedroom floor cleaning was a consistent factor for Blo t 5 levels. Asthmatic children in families with high allergen exposure were more likely to have ≥4 wheezing attacks in preceding 12 months and exercise-induced wheezing than those with normal allergen exposure (P= 0.051 and 0.030, respectively). Mattress levels of all three allergens were also associated with severity of several allergy symptoms (P=0.025-0.005). None of these aeroallergens correlated with exhaled nitric oxide and spirometric parameters. This study identifies determinants for cat, cockroach, and B. tropicalis levels in Hong Kong families with asthmatic children. These exposures are associated with severity of allergy symptoms

Keywords:

Aeroallergen, asthma, Exhaled nitric oxide, House dust, Lung function

176.脂質製劑體外動態腸吸收模型的建立及評價

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會議/刊物名稱：

藥學學報，2011 年第 8 期，pp.983-989，中文核心期刊要目總覽(2008)

內容簡介：

根據脂質製劑腸消化吸收的特性，本文在體外脂解模型基礎上，引入腸吸收評價方法，建立了一種用於篩選評價脂質製劑的新型體外動態腸吸收模型，包括腸消化和腸組織培養兩大體系。探究模型重要參數(Ca2+、葡萄糖、K+) 的影響，發現 Ca2+濃度的增加能顯著增強脂質製劑的腸消化; 葡萄糖濃度的遞增能顯著減慢腸組織活性衰減; K+雖能維持腸組織的活性，但其濃度變化對腸組織活性衰減並無顯著性影響; 最終選擇 Ca2+10 mmol・L−1、葡萄糖 15 mmol・L−1 和 K+ 5.5 mmol・L−1 爲模型參數。利用該模型評價 Type I 脂質製劑得到的體外吸收曲線與大鼠體內吸收曲線呈現極顯著的點對點相關性 (r = 0.995 6，P < 0.01)。本模型可望應用於脂質製劑的篩選、評價及預測。

關鍵詞：

脂質製劑、腸消化、腸組織活性、吸收、體內外相關性

176.Establishment and Evaluation on a Dynamic in Vitro Intestinal Absorption Model of the Lipid Formulations

Y. Liu; T. Yi; D. Huan; L. Xiao; J.-K. He.

MIAR, Macau University of Science and Technology

Name of Conference/Journal:

Acta Pharmaceutica Sinica, 2011 (8), pp.983-989, A Guide to the Core Journal of China (PKU)

Abstract:

A new dynamic in vitro intestinal absorption model for screening and evaluating lipid formulations was established by means of the characteristics of the intestinal digestion and absorption of the lipid formulations. This model was composed of two systems, including intestinal digestion and the intestinal tissue culture, which drew the evaluation method of intestinal absorption into the in vitro lipolysis model. The influence of several important model parameters such as Ca2+, D-glucose, K+ on the two systems of this model has been investigated. The results showed that increasing of Ca2+ concentration could be significantly conductive to intestinal digestion. The increasing of D-glucose concentration could stepped significantly down the decay of the intestinal activity. K+ was able to maintain intestinal activity, but the influence of different concentration levels on the decay of the intestinal activity was of no significant difference. Thus the model parameters were set up as follows: Ca2+ for 10 mmol・L−1, D-glucose for 15 mmol・L−1 and K+ for 5.5 mmol・L−1. Type Ⅰ lipid formulation was evaluated with this model, and there was a significant correlation between the absorption curve in vitro and absorption curve in vivo of rats ($r = 0.995\ 6$, $P < 0.01$). These results demonstrated that this model can be an attractive and great potential method for the screening, evaluating and predicting of the lipid formulations.

Keywords:

Lipid formulation, Intestinal digestion, Intestinal activity, Absorption, In vitro-in vivo correlation

177.吲哚美辛微觀結晶機制及納米包衣的影響

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會議/刊物名稱：

藥學學報，2011 年第 6 期，pp.707-712，中文核心期刊要目總覽(2008)

內容簡介：

藥物的無定形狀態比晶態具有更大的溶解度，可以促進吸收，提高口服生物利用度，但是穩定性差，易轉變爲晶體狀態。本文採用偏光顯微鏡、掃描電子顯微鏡、差示掃描量熱法、X-射線衍射法和拉曼光譜法等研究無定形吲哚美辛的微觀結晶機制，並對藥物表面進行噴金包衣，厚度爲 10 nm，研究結晶行爲變化。結果發現，無定形吲哚美辛自由表面的結晶速率遠大於其內部，金包衣可顯著抑制自由表面的結晶。這提示，自由表面的結晶是影響無定形藥物穩定性的關鍵因素，納米包衣可用於增強無定形藥物的穩定性。

關鍵詞：

無定形、結晶、表面、納米包衣、吲哚美辛

177.Microcosmic Mechanisms of Amorphous Indomethacin Crystallization and the Influence of Nano-coating on Crystallization

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Name of Conference/Journal:

Acta Pharmaceutica Sinica, 2011 (6), pp.707-712, A Guide to the Core Journal of China (PKU)

Abstract:

Amorphous drugs have higher solubility, better oral bioavailability and are easier to be absorbed than their crystalline counterparts. However, the amorphous drugs, with weak stability, are so easy to crystallize that they will lose the original advantages. Polarization microscope, scanning electron microscope, differential scanning calorimetry, X-ray diffractomer and Raman spectroscopy were used to study the microcosmic crystallization mechanisms of amorphous indometacin and the performance of the drug crystals. The results showed that the growth rate of amorphous indometacin crystals at the free surface was markedly faster than that through the bulk, and that the crystal growth rate decreased observably after spraying an ultrathin melting gold (10 nm) at the free surface of the drug. These results indicated that the high growth rates of amorphous drugs crystals at the free surface were the key to their stability and that an ultrathin coating could be applied to enhance the stability of amorphous drugs.

Keywords:

Amorphou, Crystallization, Surface, Nano-coating, Indomethacin

178.微粉矽膠對固體自微乳化給藥系統小腸吸收的影響

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會議/刊物名稱：

藥學學報，2011 年第 4 期，pp.466-471，中文核心期刊要目總覽(2008)

內容簡介：

固體載體對固體自微乳化給藥系統(solid self-microemulsifying drug delivery systems, S-SMEDDS) 的體內外性質有重要影響。本文探討微粉矽膠對 S-SMEDDS 藥物吸收的影響，爲選擇適宜固體載體提供依據。通過研究微粉矽膠對小腸脂解和 S-SMEDDS 體外釋放的影響，並採用新型體外脂解-吸收模型研究微粉矽膠對 S-SMEDDS 離體小腸吸收的影響。結果發現微粉矽膠既能提高脂解速率增，加脂解後水性分散相中藥物分配，促進藥物吸收；又會延緩 S-SMEDDS 體外釋藥，影響藥物的吸收速度；最終導致對 S-SMEDDS 的離體小腸吸收沒有顯著性影響。而且微粉矽膠對脂解和釋藥的影響都與其用量有關，這提示微粉矽膠適合作爲 S-SMEDDS 的固體載體，其用量需要進一步篩選優化。

關鍵詞：

微粉矽膠、自微乳化給藥系統、小腸吸收、體外脂解模型、吲哚美辛

178.Influence of Silica on Intestinal Absorption of Solid Self-microemulsifying Drug Delivery Systems

D. Huan; T. Yi; Y. Liu; L. Xiao; J.-K. He.

MIAR, Macau University of Science and Technology

Name of Conference/Journal:

Acta Pharmaceutica Sinica, 2011 (4), pp.466-471, A Guide to the Core Journal of China (PKU)

Abstract:

Solid carriers had important effects on the properties of solid self-microemulsifying drug delivery systems (S-SMEDDS). In order to make the basis for further development of S-SMEDDS, the influences of silica on the absorption of S-SMEDDS were investigated. An in vitro lipolysis model was used to evaluate the influence of silica on self-microemulsifying drug delivery system digestion from intestinal tract. S-SMEDDS containing silica were prepared by extrusion/spheronization. The drug release and absorption were investigated. The results showed that lipolysis rate and drug concentration in aqueous phase after intestinal lipolysis both increased by adding silica, which was benefit to drug absorption. And silica was not benefit to absorption for slowing drug release. Consistently, there was no significant influence of silica on intestinal absorption. This study implied that the influences of silica on lipolysis rate and drug release were both amount dependent and it is suggested that silica could be used as the solid carrier but the proportion needs to be optimized.

Keywords:

Silica, Self-microemulsifying drug delivery system, Intestinal absorption, In vitro lipolysis model, Indomethacin

179.效應面法優化新型自微乳化口腔速溶膜

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會議/刊物名稱：

藥學學報，2011 年第 5 期，pp.586-591，中文核心期刊要目總覽(2008)

內容簡介：

本文研製了一種順應性強且可提高水難溶性藥物口服生物利用度的新劑型——自微乳化口腔速溶膜。採用 Box-Behnken 設計效應面法對其處方進行優化，考察處方中固體載體微晶纖維素、低取代羥丙基纖維素、羥丙甲基纖維素的用量對體外崩解時間、體外釋放度、形成微乳後的粒徑及抗拉伸性的影響。篩選最優處方制得的口腔即溶膜崩解時間爲(17.09 ± 0.72) s，形成微乳粒徑爲(28.81 ± 3.26) nm，體外 2 min 時釋放率爲(66.18 ± 1.94)%。本劑型服用方便，口腔中迅速自微乳化，藥物釋放快速，抗拉伸性強，具有廣闊的應用前景。

關鍵詞：

自微乳化給藥系統、口腔速溶膜、效應面法、Box-Behnken、吲哚美辛

179.Optimization of Novel Self-microemulsifying Mouth Dissolving Films by Response Surface Methodology

L. Xiao; T. Yi; Y. Liu; D. Huan; J.-K. He.

MIAR, Macau University of Science and Technology

Name of Conference/Journal:

Acta Pharmaceutica Sinica, 2011 (5), pp.586-591, A Guide to the Core Journal of China (PKU)

Abstract:

This paper reports the development of a new dosage form—self-microemulsifying mouth dissolving films, which can improve the oral bioavailability of water insoluble drugs and have good compliance. A three factor, three-level Box-Behnken design was used for optimizing formulation, investigated the effect of amounts of microcrystalline cellulose, low-substituted hydroxypropyl cellulose and hypromellose on the weight, disintegration time, cumulative release of indomethacin after 2 min, microemulsified particle size and stretchability. Optimized self-microemulsifying mouth dissolving films could fast disintegrate in (17.09 ± 0.72) s; obtain microemulsified particle size at (28.81 ± 3.26) nm; and release in vitro at 2 min to (66.18 ± 1.94)%. Selfmicroemulsifying mouth dissolving films with broad application prospects have good compliance, strong tensile and can be released rapidly in the mouth through fast self-microemulsifying.

Keywords:

Self-microemulsifying drug delivery system, Mouth dissolving film, Response surface methodology, Box-Behnken, Indomethacin

180.銀杏葉總黃酮自微乳化口腔速溶膜的製備及其性質研究

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會議/刊物名稱：

中草藥，2011 年第 8 期，pp.1517-1522，中文核心期刊要目總覽(2008)

內容簡介：

研製銀杏葉總黃酮的自微乳化口腔速溶膜，並考察其體外性質。方法採用溶解度法和偽三元相圖法篩選確定銀杏葉總黃酮自微乳化給藥系統處方；在此基礎上，以成膜性和體外崩解時間爲指標篩選固體載體，製備能在口腔中迅速自微乳化的固體膜劑。考察其自微乳化性能、崩解時間、體外釋放度等體外性質，採用差示掃描量熱法和掃描電子顯微鏡表徵藥物晶型和膜的表面形態。結果 光子相關光譜法測得本製劑微乳液的平均粒徑爲（48.1±5.45）nm，與銀杏葉總黃酮自微乳化給藥系統的微乳粒徑無差異；崩解時間爲（9.94±0.26）s；體外釋放度在 5 min 時即可達到（70.98±0.31）%，顯著快於市售片。結論 銀杏葉總黃酮自微乳化口腔速溶膜結合了自微乳化給藥系統和口腔即溶膜的雙重優點，是具有應用前景的新劑型。

關鍵詞：

銀杏葉總黃酮、自微乳化給藥系統、口腔速溶膜、體外表徵、體外釋放度

180.Preparation and characterization of self-microemulsifying oral fast dissolving films of total ginkgo flavonoid

L. Xiao; T. Yi; Y. Liu; D. Huan; J.-K. He.

MIAR, Macau University of Science and Technology

Name of Conference/Journal:

Chinese Traditional and Herbal Drugs, 2011 (8), pp.1517-1522, A Guide to the Core Journal of China (PKU)

Abstract:

Objective To prepare the total ginkgo flavonoid (TGF) self-microemulsifying oral fast dissolving films (SMEOFDF) and evaluate its in vitro properties. Methods The formulation of TGF self-microemulsifying drug delivery system (SMEDDS) was optimized based on the solubility method and the pseudo-ternary phase diagram, and then the influence of formulation on disintegration time and film forming property were observed by single factor test. Microemulsified performance, disintegration time, content uniformity, and release profiles in vitro were investigated. The surface feature of TGF SMEOFDF was detected by scanning electron microscope and the crystal form of drug was characterized by differential scanning calorimetry. Results The average particle size was (48.1 ± 5.45) nm with non-difference from SMEDDS. The average time to disintegrating was (9.94 ± 0.26) s and the releasing drug at 5 min of TGF SMEOFDF was (70.98 ± 0.31)% in vitro. Conclusion SMEOFDF which has both advantages of SMEDDS and fast dissolving oral films is a new dosage form with profound application prospect.

Keywords:

Total ginkgo flavone (TGF), Self-microemulsifying drug delivery system (SMEDDS), Oral fast dissolving films (OFDF), In vitro characterization; in vitro release

181.體外研究羥丙甲基纖維素對自微乳化給藥系統胃腸道行爲的影響

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會議/刊物名稱：

中國藥學雜誌，2011 年第 7 期，pp.527-531，2011 年 4 月，中文核心期刊要目總覽(2008)

內容簡介：

目的：探究羥丙甲基纖維素對自微乳化給藥系統胃腸道消化的影響，爲固體自微乳化給藥系統的固體載體選擇提供依據。

方法：採用胃模擬分散試驗和體外脂解模型測定三種規格的羥丙甲基纖維素（K4M、K15M、K100M）對自微乳化給藥系統胃腸道行爲的影響。

結果：三種規格的羥丙甲基纖維素都可抑制自微乳化給藥系統在胃腸道中的分散沉澱；隨著羥丙甲基纖維素的粘度增加，自微乳化給藥系統的載藥能力增強，小腸脂解後分配進入水相的藥物濃度也增加。

結論：羥丙甲基纖維素有利於自微乳化給藥系統胃腸道的吸收，可作爲研製固體自微乳化給藥系統的固體載體。

關鍵詞：

羥丙甲基纖維素、自微乳化給藥系統、水難溶性藥物、分散試驗、體外脂解模型

181.Hydroxypropylmethylcellulose on Digestion of Self-Microemulsifying Drug Delivery System in Gastro-Intestinal Tract in Vitro

D. Huan; T. Yi; Y. Liu; L. Xiao; J.-K. He.

MIAR, Macau University of Science and Technology

Name of Conference/Journal:

Chinese Pharmaceutical Journal, 2011(7), pp.527-531, APR 2011, A Guide to the Core Journal of China (PKU)

Abstract:

OBJECTIVE: To study the influence of different viscosity hydroxypropylmethylcellulose (HPMC) on the digestion of self-microemulsifying drug delivery system (S-SMEDDS) in the gastro-intestinal tract, so as to provide basis for the further development of S-SMEDDS.

METHODS: In vitro experiments including dispersion experiment and an in vitro lipolysis model were used to evaluate the influence of HPMC of three viscosity grade (K4M, K15M and K100M) on the digestion of S-SMEDDS in gastro-intestinal tract.

RESULTS: All three kinds o f HPMC could inhibit the precipitation of drug in gastro-intestinal tract. With the increasing of HPMC viscosity, the soluble drug concentration in aqueous phase after intestinal lipolysis were both increased.

CONCLUSION: HPMC can improve the gastro-intestinal absorption of S-SMEDDS and be used as its solid carrier.

Keywords:

Hydroxypropylmethylcellulose, Self-microemulsifying drug delivery systems, Poor soluble drugs, Dispersion tests, In vitro lipolysis model

182.納米混懸劑研究概況及在藥物中的應用

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會議/刊物名稱：

藥學與臨床研究，第 19 卷，第 5 期，pp.439-442，2011 年

內容簡介：

納米混懸劑可增大難溶性藥物的溶解度和生物利用度，提高藥物的安全性和有效性。納米混懸劑作爲 20 世紀末發展起來的一種新的給藥系統，在藥物中的應用受到廣泛關注。本文對納米混懸劑的制備方法、原理、應用現狀進行了闡述，列舉了其在藥物制劑中的研究應用，並對其優勢、存在的問題進行了分析和展望。

關鍵詞：

納米混懸劑、難溶性藥物、應用

182.Application of Nanosuspension in Drugs

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MIAR, Macau University of Science and Technology

Name of Conference/Journal:

Pharmaceutical and Clinical Research, Volume 19, Issue 5, pp.439-442, 2011

Abstract:

Nanosuspension technology can be used to enhance the solubility and bioavailability of poorly soluble drugs, and improve drug safety and efficiency. Nanosuspension as a new drug delivery system was developed in the end of 20th, it has become a useful formulation in drugs. This paper discusses the method of preparations, principle and application perspectives of the method, its application drugs and possible problems working with nanosuspension.

Keywords:

Nanosuspension; Poorly soluble drugs; Application

183.含吡啶的抗腫瘤轉移 NAMI-A 衍生物的制備和水解機理動力學

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會議/刊物名稱：

無機化學學報，第 27 卷，第 4 期，pp.595-603，2011 年 4 月，SCI-E 檢索，中文核心期刊要目總覽(2008)

內容簡介：

目的研究配體結構對 NAMI-A 衍生物水解機理、電化學性質的影響。方法制備了 trans-[RuCl4(DMSO)(3-MePy)][(3-MePy)H](3-MePy=3-甲基吡啶，化合物 1) 和 trans-[RuC4(DMSO)(4-MePy)][(4-MePy)H](4-MePy=4-甲基吡啶，化合物 2).用 UV、NMR、CV 法研究化合物 1、化合物 2 的水解機理-動力學、溶液穩定性及電化學性質.結果化合物 1 和化合物 2 與 NAMI-A 相似，在 pH7.40 的緩沖液中發生脫氯水解反應（Ⅰ氯水解及Ⅱ氯水解)(分步反應)；在 pH 5.00 緩沖液中 DMSO(二甲亞砜)及少量吡啶水解.測定各水解反應表觀速率常數及半衰期、溶液穩定性及氧化還原電位。結論化合物 1、化合物 2 的Ⅰ氯、Ⅱ氯及 DMSO 水解反應機理與 NAMI-A 相似,而且各水解速率與 NAMI-A 相差不大，即用甲基吡啶取代咪唑環，對 NAMI-A 衍生物的Ⅰ氯、Ⅱ氯及 DMSO 水解反應速率影響較小。化合物在酸性溶液中的穩定性明顯高于中性溶液。

關鍵詞：

釕配合物、抗腫瘤轉移、水解動力學、穩定性

183.Preparation and Mechanism-Kinetics of Antimetastasis of NAMI-A Derivatives Containing Pyridine

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Name of Conference/Journal:

Chinese Journal of Inorganic Chemistry, Volume 27, Issue 4, pp.595-603, APR 2011, SCI-E indexed, A Guide to the Core Journal of China (PKU)

Abstract:

Objective To study the influence of ligand structure on the hydrolysis rate of anti-metastasis NAMI-A derivatives trans-[RuCl(4)(DMSO)(3-MePy)][(3-MePy)H] (3-MePy=3-methypyridine, Compd. 1) and trans-[RuCl(4) (DMSO)(4-MePy)][(4-MePy)H] (4-MePy=4-methypyridine, Compd. 2). Method Hydrolytic mechanism, kinetics, stability and electrochemistry of Compd. 1 and Compd. 2 were studied by UV-Vis, NMR and CV. Result The complexes undergo two well-separated steps of chloride hydrolysis at pH 7.40; while dimethyl sulfoxide (DMSO) hydrolyzed in pH 5.00 buffer solution. The K(obs) and t(1/2) for each reaction were determined. Conclusion Very similar to NAMI-A, the compounds loses 1(st) and 2(nd) chloride in two separated steps at pH 7.40; and loses DMSO in pH 5.00 buffer solution. The hydrolytic rate of the compounds including two chlorides and DMSO hydrolysis were similar to that of NAMI-A, which demonstrated that the influence of replacing imidazole by methyl pyridine on the hydrolysis rate of NAMI-A derivatives is not remarkable. The stability of the compounds in acidic solution is much more stable than that of in neutral solution.

Keywords:

Ruthenium complexes; Anti-metastasis; Hydrolytic kinetics; Stabilities

184.含甲基咪唑的抗腫瘤轉移 NAMI-A 衍生物的水解和電化學性質

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會議/刊物名稱：

高等學校化學學報，第 32 卷，第 2 期，pp.210-217，2011 年 2 月，SCI-E 檢索，中文核心期刊要目總覽(2008)

內容簡介：

合成了 trans-[Rucl4 (DMSO) (4-MeIm)][(4-MeIm)H]·HCl(4-MeIm=4-甲基咪唑)(1) 和 trans-[Rucl4 (DMSO)(N-MeIm)][(N-MeIm)H](N-MeIm=N-甲基咪唑)(2).通過紫外-可見光譜、核磁共振譜和循環伏安法研究了配體結構(4-甲基咪唑,N-甲基咪唑)對 NAMI-A 衍生物的水解機理、水解動力學、電化學性質及溶液穩定性的影響。結果表明，化合物 1 的 I 氯、II 氯及 DMSO 水解反應機理與 NAMI-A 相似，但其各級水解速率皆比 NAMI-A 快，即將推電子的甲基引入咪唑環(4 位)明顯加快了 NAMI-A 衍生物的 I 氯、II 氯及 DMSO 水解反應速率。化合物在酸性溶液中的穩定性高於中性溶液。

關鍵詞：

釕配合物、抗腫瘤轉移、水解動力學、穩定性

184.Hydrolytic and Electrochemical Property of Antimetastasis NAMI-A Derivatives Containing Methylimidazole

Liang, YH (Liang Yao-Hua); Bi, W (Bi Wei); Yang, B (Yang Bin); Zhao, L (Zhao Liang); Liang GG (Liang Guo-Gang)

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Name of Conference/Journal:

Chemical Journal of Chinese Universities-Chinese, Volume 32, Issue 2, pp.210-217, FEB 2011, SCI-E indexed, A Guide to the Core Journal of China (PKU)

Abstract:

trans-[RuCl(4) (DMSO) (4-MeIm)] [(4-MeIm) H] center dot HCl (4-MeIm = 4-Methylimidazole, 1) and trans-[RuCl(4) (DMSO) (N-MeIm)] [(N-MeIm) H] (N-MeIm = N-Methylimidazole, 2) were synthesized. The influence of ligand structure(4-MeIm and N-MeIm) on hydrolytic mechanism-kinetics, electrochemical properties and solution stabilities of Ru-NAMI-A derivatives was studied by UV, NMR and cyclic voltammetry. The result shows that the 1(st) and 2(nd) chloro-hydrolysis as well as DMSO-hydrolysis mechanisms for two compounds are very similar to that for NAMI-A. However, the hydrolytic rates of compound 1 are obviously faster than that of compound 2, which means that introducing electron donating group (methyl) into imidazole ring (C4) of NAME-A would accelerate hydrolytic reaction of Ru-NAMI-A derivatives. The stability of the complexes in acetic buffer solution is much more stable than that of in neural solution.

Keywords:

Ruthenium complex; Antimetastasis; Hydrolytic kinetics; Stability

185.調查澳門青少年乙型肝炎病毒基因型及其病毒基因體中普遍基本核心啓動子和核前區突變，以探討發展成肝癌之關係

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會議/刊物名稱：

英國生物醫學科學雜誌，第 68 卷，第 3 期，pp.143-146，2011 年，SCI-E 檢索

內容簡介：

慢性乙型肝炎是全球性的問題，超過 75%的個案發生在亞太地區。乙型肝炎可引致進行性肝臟疾病、肝硬化和肝癌。以往的研究指出澳門約有 10%的人口是乙型肝炎帶菌者。是次研究的目的是調查在澳門對乙型肝炎呈陽性反應的青少年中，乙型肝炎基因型的患病率，以及他們的病毒基因體中的普遍基本核心啓動子(base core promoter, BCP)和核前區(precore, PreC)的突變。此外，亦透過監察轉氨酶和甲型胎兒蛋白，以調查乙型肝炎基因型、基本核心啓動子/核前突變與肝癌發展之間的關係。

是次研究於 2008 年在澳門招募了 1991 名青少年，並把 34 名對乙型肝炎表面抗原呈陽性的參加者的前 S1 區(PreS1)/前 S2 區(PreS2)、基本核心啓動子和核前區的乙型肝炎病毒基因體放大及排序，以判斷乙型肝炎病毒的基因型和有否存在引致肝癌的基因突變。研究結果顯示澳門中學生的乙型肝炎病毒平均感染率低，而當地的乙型肝炎病毒以基因 B 型和 C 型佔多數。此外，於 2.9-11.7%的參加者的基本核心啓動子/核前區發現突變，確認爲 A1762T、G1764A、G1896A 和 C1766T。然而，是項研究並沒有發現乙型肝炎病毒的基因型、基本核心啓動子/核前區突變與肝癌發展之間有任何顯著的關係。

關鍵詞：

癌症、肝細胞性的、基因型、乙型肝炎、突變

185.Prevalence of hepatitis B genotype and viral basic core promoter and precore mutations among teenagers in Macao: relationship with hepatocellular carcinoma development

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Name of Conference/Journal:

BRITISH JOURNAL OF BIOMEDICAL SCIENCE, Volume 68, Issue 3, pp.143-146, 2011, SCI-E indexed

Abstract:

Chronic hepatitis B virus (HBV) infection is a global problem and over 75% of cases are reported in the Asia Pacific region. Infection can lead to progressive liver disease, cirrhosis and hepatocellular carcinoma (HCC). Previous studies suggest the prevalence of HBV carriers in Macau to be approximately 10% of the population. This study aims to investigate the prevalence of HBV genotypes among HBV-positive teenagers in Macao and the prevalence of base core promoter (BCP) and precore (PreC) mutations in the viral genome. In addition, through monitoring aminotransferase and a-fetoprotein, it aims to investigate relationships among HBV genotypes, BCP/PreC mutations and HCC development. This study recruited 1991 teenagers in Macau in 2008, and the PreS1/S2, BCP and PreC region of the HBV genome from 34 HBsAg-positive subjects were amplified and sequenced to determine HBV genotype and presence of HCC-associated mutations. Results suggested that the average rate of HBV infection among secondary school teenagers in Macao is low, and HBV genotype B and C viruses were found to predominate in Macao. The BCP/PreC mutations A1762T, G1764A, G1896A and C1766T were identified in 2.9-11.7% of subjects. However, no significant relationship was observed between HBV genotype, BCP/PreC mutations and HCC development.

Keywords:

Carcinoma, hepatocellular; Genotype; Hepatitis B; Mutation

186.蒼耳子中酚酸類化合物的鑒別及綠原酸的含量測定

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會議/刊物名稱：

中國實驗方劑學雜誌，第 17 卷，第 19 期，pp.85-88，2011 年 10 月，中文核心期刊要目總覽(2008)

內容簡介：

鑒別蒼耳子藥材中的酚酸類化合物，比較和分析不同產地蒼耳子中綠原酸的含量，建立蒼耳子的質量控制方法。方法：根據化合物的紫外光譜、液相色譜保留時間及質譜數據等綜合信息鑒別蒼耳子藥材中的酚酸類成分，採用 UPLC 對蒼耳子中綠原酸的含量進行測定，流動相甲醇 -0.1% 磷酸水溶液，檢測波長爲 327 nm，流速爲 0.4 $mL\cdot min^{-1}$，柱溫 35℃。結果：對蒼耳子藥材中的 9 種酚酸類成分的化學歸屬進行了指認，並測定了 24 批蒼耳子藥材中綠原酸的含量，結果綠原酸在 3.5 ~ 350 $mg\cdot L^{-1}$ 具有良好的線性關系(R^2=0.999 9)，平均回收率(n=6)爲 101.7%。結論：蒼耳子中特征化學成分的識別可以顯著增強其質量控制的準確性和專屬性，而快速準確的指標成分含量測定方法，也是蒼耳子質量控制的重要檢測手段，定性與定量兩方面結合，對於蒼耳子藥材及其相關產品的質量檢測和控制具有重要意義。

關鍵詞：

耳子、酚酸、鑒別、含量測定、超高液相色譜

186.Characterization of Phenolic Acids and Quantitative Analysis of Chlorogenic Acid Contained in Fructus Xanthii

Yang, L (Yang Liu); Wu, JX (Wu Jing-xiong); Xu, SJ (Xu Shun-jun); Su, ZJ (Su Zhi-jun); Zeng, X (ZENG Xing); Li, X (Li Xiong); Chen, LL (CHEN Lu-lu)

MIAR, Macau University of Science and Technology

Name of Conference/Journal:

Chinese Journal of Experimental Traditional Medical Formulae, Volume 17, Issue 19, pp.85-88, OCT 2011, A Guide to the Core Journal of China (PKU)

Abstract:

To assign phenolic acids and determine the content of chlorogenic acid contained in Fructus Xanthii collected from different product areas, and establish a practical quality control method for the herbal drug. Method: Major phenolic acids of this herb were identified based on their UV absorption, retention time and mass fragmentation characteristics. The content of chlorogenic acid was determined using ultra-performance liquid chromatography-ultraviolet detector (UPLC-UV). The mobile phase consists of 0.1% phosphoric acid in water as solvent A and methanol as solvent B. The detection wavelength is set at 327 nm and the column temperature at 35℃. The mobile phase flow rate is 0.4 $mL \cdot min^{-1}$. Result: A total of 9 major chromatographic peaks were assigned as phenolic acids, and peak area vs. content of chlorogenic acid showed a good linearity in the range of 3.5-350 $mg \cdot L^{-1}$ with a correlation coefficient of 0.999 9 and the average recovery was 101.7%. Conclusion: The established method is suitable for determining the content of chlorogenic acid contained in Fructus Xanthii and can be used to effectively control the quality of the herb; and assigning major characteristic peaks can significantly enhance specificity and accuracy in accessing the quality of herb.

Keywords:

Fructus Xanthii; Phenolic acid; Identification; Determination; UPLC

187.HPLC 法測定赤芍中芍藥苷的含量

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會議/刊物名稱：

臨床醫學工程，第 18 卷，第 4 期，pp.487-488，2011 年 4 月

內容簡介：

目的：建立赤芍中芍藥苷的含量測定方法。方法：色譜柱爲 Waters symmetry C_{18} 柱 (250 mm × 4.6 mm, 5μm)；流動相爲乙腈(A)-0.1%磷酸 (B)線性梯度洗脫, 0 min: 10%A, 5 min: 15%A, 25 min: 22%A, 45 min: 70%A, 46 min: 80%A, 50 min: 80%A；平衡時間 15 min；流速: 0.8 $mL \cdot min^{-1}$；進樣量 20μL；柱溫 25℃；DAD 檢測器採集範圍：195～400 nm；檢測波長：230 nm。結果：芍藥苷在 0.39μg～15.6μg 範圍內線性關系良好。 r2=0.9999，平均回收率爲 94.8%，RSD=2.7%。結論：該法簡便，重復性、穩定性良好，可作爲赤芍中芍藥苷的含量測定方法，對赤芍的質量評價具有重要的參考價值。

關鍵詞：

HPLC 法、赤芍、芍藥苷、含量、測定

187.Determination of the Content of Paeoniflorin in Radix Peony Rubra by HPLC Method

Zhou, HL (Zhou Hailing); Xu, SJ (Xu Shunjun); Yang, L (YANG Liu)

MIAR, Macau University of Science and Technology

Name of Conference/Journal:

CLINICAL MEDICAL ENGINEERING, Volume 18, Issue 4, pp.487-488, APR 2011

Abstract:

Objective: To establish the method for the determination of peoniflorin in the Radix Peony Rubra. Methods: The chromato column was Waters symmetry C_{18} colunm (250 mill x 4.6 mm, 5 μm); mobile phase was acetonitrile (A) -0.1% phosphoric acid (B) linear gradient elution, 0 min: 10% A, 5 min: 15% A, 25 min: 22% A, 45 min: 70%A, 46 min: 80% A, 50 min: 80% A; equilibrium time: 15 min; flow rate: 0.8 $mL \cdot min^{-1;}$ injection volume: 20 μL; column temperature was 25℃; DAD detector acquisition range: l95～400 nm; detection wavelength: 230 nm. Results: Paeoniflorin in the range 0.39 μg ~ 15.6 μg was good linear relationship, r^2 = 0.9999, the average recovery was 94.8%, RSD = 2.7%. Conclusion: The method is simple, reproducible, good stability, and can be used in the determination of paeoniflorin in the Radix Peony Rubra, which has important reference value for quality evaluation of Radix.

Keywords:

HPLC; Radix Peony Rubra; Paeoniflorin; Content; Determination

188.野木瓜的研究進展

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會議/刊物名稱：

中藥新藥與臨床藥理，第 22 卷，第 6 期，pp.696-700，2011 年 11 月，中文核心期刊要目總覽(2008)

內容簡介：

木通科植物野木瓜藤莖在江西一帶民間用作止痛藥已有相當長的歷史，收載於《中國藥典》1977 版及 2010 版。本文綜述了本品近 20 年來在基源、形態、化學、藥效及質量分析方面的研究情況,爲本品的開發利用提供有用的信息。

關鍵詞：

野木瓜、化學、生物活性、質量

188.Review on Research Progress of Yemugua (Caulis et Folium Stauntoniae Chinensis)

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Name of Conference/Journal:

Traditional Chinese Drug Research and Clinical Pharmacology, Volume 22, Issue6, pp.696-700, NOV 2011, A Guide to the Core Journal of China (PKU)

Abstract:

As a folk herbal medicine, Yemugua, the stem and leaf of Stauntonia Chinensis DC. (Lardizabalaceae), has been used as analgesic for long time in Guizhou and Jiangxi provinces, and has been adopted in Chinese Pharmacopeia 1977 and 2010 edition. This paper gave a brief review of Caulis et Folium Stauntonia Chinenesis in the aspect of source, morphology, chemistry, pharmacology, and efficacy, in order to supplying information for further development and application of this herbal medicine.

Keywords:

Yemugua (Caulis et Folium Stauntonia Chinenesis); Chemistry; Bioactivity; Quality

189.理性與信仰在西方啓蒙運動中的張力

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會議/刊物名稱：

社會科學戰線，2011 年第 9 期，pp.7-14，中文核心期刊要目總覽(2008)，CSSCI 檢索

內容簡介：

西方啓蒙運動的問題，多年以來一直是一個經久不衰的老話題。人們通常比較强調啓蒙運動對宗教的批判，强調理性主義的絕對價值，卻忽略了不同時代和不同文化傳統中的啓蒙思想家們對於理性與信仰之關係的迥異態度。文章旨在從信仰與理性的關係角度對西方啓蒙運動的發展歷程進行一種宏觀的和動態的考察，結合不同時代和不同國家的具體情況來說明傳統與更新之間的辯證關係，並希望能够得出某些對於當代中國啓蒙歷程具有啓發意義的結論。

關鍵詞：

啓蒙運動、理性、信仰

189.Tension between Reason and Faith in the Enlightenment

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Name of Conference/Journal:

Social Science Front, 2011(9), pp.7-14, A Guide to the Core Journal of China (PKU), CSSCI indexed

Abstract:

Discussions about the Enlightenment have always centered on emphasizing the criticism against religion and on the absolute values of rationalism to the neglect of different views in terms of the relationship between reason and faith from enlightenment thinkers in different times and cultures. This paper aims at a macroscopic and dynamic inspection of the campaign and a dialectical analysis of the relationship between tradition and renovation based on perspectives from different times and cultures, hoping to illuminate the similar if not the same social transformation in modern China.

Keywords:

The Enlightenment, Reason, Faith

190.後殖民時代基督宗教的全球發展態勢

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會議/刊物名稱：

江海學刊，總第 274 期，2011 年第 4 期，pp.60-68，CSSCI 檢索

內容簡介：

在後殖民時代，基督宗教在全球範圍內展現出一種由北向南的運動軌迹，它的未來發展熱土將不再是發達的歐洲和北美，而是文明化歷程與殖民化歷程相同步的、欠發達的拉丁美洲和非洲。然而在有著深厚文明根基的亞洲，基督宗教的發展卻面臨著伊斯蘭教、印度教等傳統宗教信仰的巨大阻力，其蹇滯狀況與它在拉丁美洲、非洲的順利情景形成了鮮明對照。在中國，基督宗教在經歷了改革開放初期的“井噴”式發展之後，同樣也面臨著方興未艾的“國學熱”的强勁挑戰，基督宗教在未來中國的發展前景，將受到政治、經濟、文化等諸多因素的深刻影響。

關鍵詞：

主基督宗教、後殖民時代、文化保守主義

190.The Development Trend of Christianity in the Postcolonial Era

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Institute for Social and Cultural Research, Macau University of Science and Technology

Name of Conference/Journal:

Jiang Hai Academic Journal, 2011(4), pp.60-68, CSSCI indexed

Abstract:

In the postcolonial era, Christianity has revealed a global north-south track motion, with its hot spots moving from the developed Europe and North America to the underdeveloped Latin America and Africa where civilization and colonization are synchronized. In the culturally sophisticated Asia, however, the development of Christianity has met with repeated challenges from traditional religions such as Islam and Hinduism, which unfavorable stagnancy presents a sharp contrast to its Latin American and African counterpart. Likewise in China, the cultural conservatism under the deceitful pretence of scholastic revival of traditional Chinese culture is launching an insidious attack against Christianity that saw a shortlived blowout of development during the initial years of open-door policy. The prospect of Christianity in China is expected to be profoundly impacted upon by many factors, political, economical and cultural.

Keywords:

Christianity, Postcolonial era, Cultural conservatism

191.嫦娥一號探月衛星 CCD 影像圖的自動無縫拼接

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會議/刊物名稱：

地球科學，第 22 卷，第 5 期，pp.610-618，2011 年 10 月，SCI-E 檢索

內容簡介：

本文提出了一個新穎的圖像自動無縫拼接算法。與傳統的方法相比較，該算法生成全月面圖的處理速度快，且減少了人工干預。利用這一方法，由嫦娥一號 CCD 圖像生成了空間分辨率爲 120 米的全月面影像圖。

關鍵詞：

嫦娥一號、月面圖、CCD 數據處理、自動圖像拼接

191.Automatic seamless stitching method for CCD images of Chang'E-1 lunar mission

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Faculty of Information Technology, Macau University of Science and Technology

Space Science Institute, Macau University of Science and Technology

Name of Conference/Journal:

JOURNAL OF EARTH SCIENCE, Volume 22, Issue 5, pp.610-618, OCT 2011, SCI-E indexed

Abstract:

A novel automatic seamless stitching method is presented. Compared to the traditional method, it can speed the processing and minimize the utilization of human resources to produce global lunar map. Meanwhile, a new global image map of the Moon with spatial resolution of similar to 120 m has been completed by the proposed method from Chang'E-1 CCD image data.

Keywords:

Chang'E-1; selenograph; CCD data processing; automatic image stitching

192.月面鉀元素分布：嫦娥一號伽瑪射綫譜儀處理結果

祝夢華、馬濤、常進、唐澤聖、葉永烜、許敖敖

澳門科技大學　太空科學研究所

會議/刊物名稱：

中國科學 （物理，力學， 天文學），第 54 卷，第 11 期，pp.2083-2090，2011 年 11 月，SCI-E 檢索

內容簡介：

本文給出了由嫦娥一號伽瑪譜儀（CGRS）數據生成的全月面鉀元素分布圖。假定在計數率與豐度之間存在綫性關係，將個別月麵點的平均鉀元素豐度作爲標定的地面參考以推導出絕對含量的全月圖。雖然伽瑪譜儀數據的信躁比較低，生成的圖仍然保持相對的變化。與阿波羅，月球探測者號及月亮女神計算的結果一樣，由嫦娥的伽瑪譜儀數據得出的全月鉀元素分布圖，顯示出在月球的近月面有較高的含量，而次高的含量位于遠月面的 SPA 盆地。與月球探測者號比較，鉀元素分布呈現出良好的相關性，但是遠月面高地的豐度比月球探測者號的結果低得多。因爲嫦娥一號伽瑪譜儀的采樣範圍較之月面著陸點的采樣半徑大，標定後的圖較之月球探測者號表示出較大的變化範圍。而後者是用理論計算推導出來的，即：在高豐度處有較高的標定值，而在低豐度處有較低的標定值。 然而，本文推導出來的鉀元素圖與月球采樣數據的一致性較之月球探測者號更好。

關鍵詞：

嫦娥一號、伽瑪譜儀、鉀元素分布、經驗標定

192.Lunar potassium distribution: Results from Chang'E-1 gamma ray spectrometer

Zhu Meng-Hua; Ma Tao; Chang Jin; Tang ZeSheng; Ip Wing-Huen; Xu AoAo

Space Science Institute, Macau University of Science and Technology

Name of Conference/Journal:

SCIENCE CHINA-PHYSICS MECHANICS & ASTRONOMY, Volume 54, Issue 11, pp.2083-2090, NOV 2011, SCI-E indexed

Abstract:

The global map of potassium is represented in this paper from Chang'E-1 (CE-1) Gamma-ray Spectrometer (CGRS) for its one-year mission. Assuming a linear relationship between net count rate and its abundance, the average potassium abundance of individual landing sites is used as ground-truth for the calibration to derive the global map of absolute concentration. Although CGRS spectra have a lower signal-to-noise ratio, the translated map still keeps relative variations. As calculated from Apollo, Lunar Prospector, and Kaguya, global potassium map from CGRS shows high concentrations on the lunar nearside and secondary concentrations located in the South Pole-Aitken (SPA) basin on the farside. The comparison with Lunar Prospector potassium map shows a good correlation, though abundances on the highlands of the farside are much lower than that of Lunar Prospector. Since the footprint of CGRS measurements is larger than the sampling radius of each landing site, the calibrated map shows a larger variation range of the scale than that of Lunar Prospector, which was derived using theoretical calculation; namely, the calibrated map has higher values in the areas with high concentration while having lower values for the areas with lower concentration. However, the derived potassium map is more consistent with the lunar sample data than that of Lunar Prospector.

Keywords:

Chang'E-1; gamma-ray spectrometer; potassium distribution; empirical calibration

193.Challenge and change in higher education: Pedagogic and human responses

祈務晨

澳門科技大學

會議/刊物名稱：

2011 年海峽兩岸及港澳地區高等教育論壇，2011 年 11 月，四川綿陽，會議文章

內容簡介：

高等教育的國際發展正向高等教育機構施加壓力，重新修正其優先考慮的事項，以及如何實現這些目標。在簡單直接決策不能解決問題及高等教育陷入潛在矛盾需求的氣氛之下，本文將會探討高等教育機構面臨的主要挑戰。本文將會就改革壓力前後連貫的反應，尤其是對“適切性”的需求作出說明，並著眼於這種情況下學生在教學、學習及校園生活方面的體驗。本文將闡明把注意力重新集中在教與學的廣義解釋是改革壓力的其中一個結果及回應。然而，本文也反駁關於教與學的狹義解釋，更準確地說，在問責制及質素保證的趨勢之下，高等教育需要一個更廣闊的學習視野，應更以學生爲本、以學習爲本；保證學生的全人及均衡發展，提供課堂上及課餘的學習支援、課外活動，以及接觸不同文化及體驗。關於如何處理這些問題，將會以澳門規模最大的大學的做法及發展引以爲例。

關鍵詞：

學生學習、以學生爲中心、學生支援、課外活動、通識教育

（中文翻譯謹供參考，請以英文版本爲準）

193.Challenge and change in higher education: Pedagogic and human responses

Keith Morrison

Macau University of Science and Technology

Name of Conference/Journal:

2011 Higher Education Forum in Across-Strait, China, Hong Kong, Macao and Taiwan Regions, Nov 2011, Mianyang, Sichuan, China, conference article

Abstract:

International developments in higher education (HE) are pressing higher education institutions (HEIs) to readjust their priorities and how they achieve them. In a climate in which simple decisions are elusive and in which HE is caught between potentially conflicting demands, this paper traces in some key challenges facing HEIs. The paper argues for a connected, coherent response to pressures for change, particularly the demand for 'relevance' , and it focuses, in this instance, on student experiences of teaching, learning and campus life. It argues that renewed attention to a broad interpretation of teaching and learning is one outcome of, and response to, pressures for change. However it argues against a narrow interpretation of these; rather, within a climate of accountability and quality assurance, it suggests that a broader view of learning in HE is necessary, to become much more student-centred and learning-centred, to engage the whole person and the all round development of students, with in-class and out-of-class learning and support, extra curricular activities, and exposure to different cultures and experiences. How these are addressed is instanced in the practices and developments in Macau's largest university.

Keywords:

Student learning, Student-centredness, Student support, Extra-curricular activities, General education

194.心理咨詢和鑑賞：不同個案間的轉移和概括學習

祈務晨

澳門科技大學

會議/刊物名稱：

The Third Counselling Forum for Four Regions Cross-straits Counselling，2011 年 7 月，澳門，會議文章

內容簡介：

本文關注於高等教育機構的心理咨詢問題，討論心理咨詢師如何從個案研究中學習，提高心理輔導的應用能力。論文從心理咨詢師作爲研究者的角度出發，分析心理咨詢案例，從並研究方法論上解決問題。心理咨詢師面臨的一個挑戰是每個個案的行爲起因都很複雜，難以察覺，但心理咨詢師仍可從不同案例中學習，並將所學知識應用到新案例中。心理咨詢師如何將不同個案所學知識應用到新案例中呢？可能存在概括和轉移的方法，本文指出概括的幾種形式，轉移幾個發生率爲零的樣本案例和個人案例。文中引用艾斯納的“鑑賞”“批評 ”和“揭露”觀點，研究如何從個案分析中概括，如何總結“優先考慮”的標準，以解釋心理咨詢師如何從不同個案中學習，並將所學知識應用到新案例中。論文將鑑賞的發展視爲有效咨詢的一個關鍵組成部分。

關鍵詞：

學生、鑑賞、概括、轉移、案例分析

（中文翻譯謹供參考，請以英文版本爲準）

194.Counselling and connoisseurship: Transferring and generalizing learning from unique cases

Keith Morrison

Macau University of Science and Technology

Name of Conference/Journal:

The Third Counselling Forum for Four Regions Cross-straits Counselling, July 2011, Macau, conference article

Abstract:

This paper, focusing on counselling in higher education institutions, asks how counsellors can learn from their case studies and case notes in order to improve their counselling practice. It approaches the issue from a counsellor-as-researcher perspective, i.e. informing counselling practice and also addressing a research methodology issue. The challenge for counsellors is that cases and the causal pathways and causal conditions which bring about behaviours in those cases are often unique, unobservable and specific, yet counsellors learn from them, and apply their learning to their new cases, and maybe generalize from them. How can counsellors apply knowledge learned from unique cases to other new, different and unique cases? Some generalization and transferability may be possible, and this paper indicates some forms of generalization and transfer which may be employed with non probability samples and individual cases. The paper then draws on Eisner's notions of 'connoisseurship', 'criticism' and 'disclosure', research on generalizing from case studies, and criteria from 'precedence', to suggest how counsellors can learn from their unique case studies and apply their learning to new cases in their everyday practice. The paper makes a case for considering the development of connoisseurship as a key component of effective counselling.

Keywords:

Students, Connoisseurship, Generalization, Transfer, Case study

195.自我管理中的領導能力：複雜理論和交流行動

祈務晨

澳門科技大學

會議/刊物名稱：

領導力和管理的複雜性之國際期刊，第 1 卷，第 2 期，pp.145-163

內容簡介：

譯文未經出版商校對：複雜理論，認爲領導必須爲員工的自我管理的出現，以及自我管理出現的秩序創造條件。而該二者皆重視組織自下而上的發展方式，並使組織遠離過度或抑制的官僚主義和等級制度。而作爲複雜理論中具有核心特徵的“溝通”，則可以爲促進自我管理及其秩序的出現創造有利的條件。複雜理論中所指的領導能力以及溝通，能夠削減不必要的官僚主義和等級制度，並強調公開面對未知的將來，作者認爲這種溝通是通過行動而非言語表現出來的，同時這一溝通與哈貝馬斯的“理想話語情境”及其交流行動的理論具有相通性。自我管理、自我管理的出現及出現秩序必須考慮個人願望、道德和倫理的因素。哈貝馬斯的“理想話語情境”意在通過溝通解決這一問題，減少組織中不必要的官僚主義及等級制度。本文認爲領導可以按照哈貝馬斯的理想話語情境及交流行動的理論進行溝通，從而爲合乎期望且符合道德及倫理要求的自我管理及可反饋的秩序創造條件。

關鍵詞：

複雜理論、領導力、自我組織、溝通、出現、理想言談情境、哈貝馬斯

（中文翻譯謹供參考，請以英文版本爲準）

195.Leadership for self-organization: complexity theory and communicative action.

Keth Morrison

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Name of Conference/Journal:

International Journal of Complexity in Leadership and Management, Volume 1, No. 2, pp.145-163

Abstract:

Complexity theory suggests that leaders must create the conditions for self-organised emergence and emergent order, both of which value bottom-up development and move an organisation away from excessive or inhibiting bureaucracy and hierarchy. Communication, as a central feature of complexity theory, can facilitate the creation of the conditions for self-organised emergence and order.Communication in complexity-theory-based leadership to reduce unnecessary bureaucracy and hierarchy and to foster openness to unpredictable futures is argued to be illocutionary rather than perlocutionary. The nature of such communication is found in Habermas's 'ideal speech situation' and his theory of communicative action. Self-organisation, emergence and emergent order have to be considered in terms of desirability, morality and ethics. The illocutionary force of Habermas's 'ideal speech situation' addresses these in relation to communication, reducing unnecessary bureaucracy and hierarchy in an organisation. The paper argues that leaders can embrace the tenets of Habermas's ideal speech situation and theory of communicative action in order to create the conditions for desired, morally and ethically defensible emergent, self-organised, feedback-informed order.

Keywords:

Complexity theory, Leadership, Self-organisation, Communication, Emergence, Ideal speech situation, Habermas

196.來自母語國家的英語教師在香港的跨文化適應性

朱秋勤、祈務晨

澳門科技大學

會議/刊物名稱：

Educational Studies，第 37 卷，第 4 期，pp. 481-501，2011 年，SSCI 檢索

內容簡介：

譯文未經出版商校對: 本文主要探討如何解決來自母語國家的英語教師在香港的跨文化適應問題，除了政府給予財政撥款及訂立合約的支持外，本文試圖分析其他可以留住外籍英語教師的途徑。作者針對外籍英語教師的經歷做了一個小範圍的定性調查，從中發現了他們對自身、供職學校及政府引進人才慣例的認識中遇到的跨文化適應問題。本文通過介紹各種跨文化適應問題及他們的解決辦法，旨在提出外籍英語教師的跨文化適應問題應該得到更多的重視和關注。作者認爲應通過擴大社交網絡的途徑，消除他們的孤立感和跨文化適應的壓力，這或許是緩解香港外籍教師嚴重流失問題的一個途徑。

關鍵詞：

文化滿足、政策問題、教師培訓

（中文翻譯謹供參考，請以英文版本爲準）

196.Cross-cultural adjustment of Native-speaking English Teachers (NETs) in Hong Kong: a factor in attrition and retention

Chu, CK (Chu, Chau Kan); Morrison, K (Morrison, Keith)

Macau University of Science and Technology

Name of Conference/Journal:

Educational Studies, Volume 37, Issue 4, pp.481-501, 2011, SSCI indexed

Abstract:

This paper argues that, despite government support in financial and contractual matters, ongoing problems of retention of Native-speaking English Teachers (NETs) in Hong Kong stem, in part, from problems of cross cultural adjustment. The paper reports a small-scale qualitative investigation into the experiences of NETS in Hong Kong and finds problems of cross-cultural adjustment of the NETs themselves, the host schools and the government's induction practices. The paper reports a diversity of problems in cross-cultural adjustment and a variety of ways in which NETs handled them. The argument is made for increased and differentiated attention to be given to the cross-cultural adjustment of NETs, for greater social networking and for reducing the isolation and cross-cultural stresses that they experience. It is suggested that this might attenuate the problem of high NET turnover in Hong Kong.

Keywords:

Cultural content, Policy issues, Teacher training

197.標準化與多樣性之共存：對質量保障強求一致之觀點的質疑

祈務晨

澳門科技大學

會議/刊物名稱：

高等教育質量保障體系建設研究國際學術研討會之論文集，2011 年，第 272-289 頁，澳門

內容簡介：

本文通過回顧近期各高校質量保障工作的形勢，指出他們過分誇大了質量保障各個評估指標的相互對立性和排他性，諸如標準化與多樣性、問責制與改進、遵從評估要求與發展自我、外部保障與內部保障、內容與過程、外部評估標準與學校內部發展、約束與發展規章框架、大學自治與外部控制、公開與保密、行政介入與高校權力。文章首先對最近幾年質量保障工作進行文獻回顧，然後提出把各項評估指標進行簡單二元劃分並不合理。作者認爲，校外質量保障及評估機構在對高校質量保障的本質、目的、重點及內容進行評估時，重點考察其與評估機構要求的一致性，而機構評估要求與內部質量保障目標剛好吻合，這樣外部評估可以促進而非抑制高校的多樣性發展，而將兩者視爲對立的觀點一定會在實踐中被淘汰，因爲高校質量保障想要對高校起到積極的影響，它就必須拋棄陳舊觀點。相關研究結果表明目前質量保障對高校的主要質量發展上影響有限，作者在此研究基礎上，針對擴大內部保障與外部保障影響方面做了深入分析和研究，並提出強有力的證據。作者認爲，高校的質量保障工作若要起到改善質量的功能，高校必須發展自身的質量保障體系，相關程序及工作需要考慮到高校自身的發展狀況及學術自由的因素，而不能一味由外部質量保障要求來主導。作者認爲應該提倡兩种思維、兩种方式的互補而不應該將兩者割裂開來。

關鍵詞：

外部質量保障、校內質量保障、質量保障機構

（中文翻譯謹供參考，請以英文版本爲準）

197.Standardization and diversity can co-exist: against a Procrustean view of quality assurance

Keith Morrison

Macau University of Science and Technology

Name of Conference/Journal:

Proceedings of the International Symposium on Higher Education Quality Assurance, pp.272-289, 2011, Macao

Abstract:

This paper reviews recent trends in quality assurance (QA) in Higher Education (HE) and argues that they overstate tensions between, and mutual exclusivity of putative oppositional dichotomies such as standardization and diversity, accountability and improvement, compliance and development, external and internal QA, content and process, external benchmarks and internal development, inhibiting and enabling regulatory frameworks, institutional autonomy and external control, transparency and secrecy, political interference and institutional power. The paper reviews recent literature on QA and suggests that it does not bear out such simplistic dichotomies. It argues that when one examines the nature, purposes, foci and contents of QA from external QA and accreditation agencies, they are marked by similarity at levels of principles and areas of focus and that these sit comfortably with internal QA, and can promote and sustain, rather than inhibit, diversity in HE institutions, and that simple dichotomies must be, and are, abandoned as QA moves forward and if it is to have a positive impact on HE. The paper reports studies that show the limited impact that QA has had on key aspects of HE quality and argues for further meta-analyses and research syntheses of the effects and effect sizes of QA, both internal and external, on standardization and diversity, in order for evidential arguments to be sustainable. It sounds a cautionary note on the need for realistic expectations to be held of the power of QA to effect improvement, and reinforces the practice of HE institutions developing their own bespoke QA frameworks, procedures and practices that are sensitive to specific institutional contexts and academic freedoms whilst being mindful of, rather than driven by, external QA requirements. Joined-up rather than dichotomous thinking and practice is advocated.

Keywords:

External quality assurance, Institutional quality assurance, Quality assurance agencies

重要演講與文章

Major Talks and Articles

公開演講

1. 李建慶，題目：車載自組網絡研究現狀
演講於「澳門電機及電子工程師學會/（美國）電機及電子工程師學會澳門分會會員大會」，由澳門電機及電子工程師學會/（美國）電機及電子工程師學會澳門分會主辦
時間和地點：2011 年 1 月 29 日，澳門科技大學

2. 唐華軍，題目：Optimal Analysis of Free Shuttle Buses in Macau Based on Emission Reduction
演講於 "The Second POMS-HK International Conference"，由香港科技大學主辦
時間和地點：2011 年 1 月 7 日，香港科技大學

3. 劉靜文、阮邦球，題目："私立高等教育的多樣化：澳門的情況"
演講於 "2011 年高等教育的教學，研究及管理的創新"，由東南亞教育部長組織主辦
時間和地點：2011 年 7 月 14-15 日，胡志明市，越南

4 方泉，題目：澳門受賄罪的立法檢討：從法益的實然內容與應然內容入手
演講於「第一屆兩岸四地刑事法論壇」，由北京師範大學、香港大學、台灣大學、澳門大學主辦
時間和地點：2011 年 12 月 17 日，北京

5 黃明健，題目：澳門環境保護法律現狀
演講於澳門政府總部，由澳門政府辦公室主辦
時間和地點：2010 年 4 月 23 日，澳門政府總部

6 林位強，題目：澳門醫療改革中的三個法律問題
演講於「2010 兩岸衛生法律與學術政策」研討會，由台灣地區衛生署國際合作處及臺大法律學院亞洲 WTO 暨國際衛生法與政策研究中心主辦
時間和地點：2010 年 7 月 23 日，臺北市新生南路三段 30 號福華文教會館

7 趙琳琳，題目：論反腐敗犯罪中的特殊偵查
演講於「兩岸四地刑事法論壇」，由北京師範大學主辦
時間和地點：2011 年 12 月 15 日，北京

8 張楊，題目：城市轉型與醫療旅遊發展關係研究 - 以四川省成都市爲例
演講於「亞太地區現代服務業發展高峰論壇」，由澳門科技大學主辦
時間和地點：2010 年 11 月 10 日，澳門獲多利中心大廈

9 唐娟，題目：基於居民負面感知的格蘭披治大賽車對策研究
演講於「首屆亞太地區現代服務業發展高峰論壇。」，由澳門科技大學與澳門成人教育協會主辦
時間和地點：2011 年 11 月，澳門獲多利中心大廈

10 姜志宏，題目：應用 MRM-MS 技術分析人體免疫球蛋白 G 的糖鏈組成
演講於「第十屆中藥全球化聯盟（CGCM）研討會」，由上海中醫藥大學主辦
時間和地點：2011 年 8 月 26-28 日，上海中醫藥大學

11 姜志宏，題目：基於質譜技術的抗體藥物的序列和糖鏈分析
演講於「第七屆全國化學生物學學術會議」，由中國化學會主辦
時間和地點：2011 年 8 月 27 日，南京大學

12 姜志宏，題目：基於創新質譜技術的免疫球蛋白和抗體藥物的糖基比分析
演講於「第七屆中醫藥發展國際論壇」，由天津中醫藥大學舉辦
時間和地點：2011 年 9 月 22 日，天津中醫藥大學

13 姜志宏，題目：利用 HPLC-Chip 和 Q-TOF 技術分析 IgG 的糖鏈組成
演講於「2011 年質譜進展大會」
時間和地點：2011 年 10 月 25 日，香港大學

Major Talks

1. Li Jianqing, Topic: Review on vehicular ad hoc networks, General Assembly of IEEE Macau and IEEE Macau Section, IEEE Macau and IEEE Macau Section, 29 January, 2011, MUST

2. Tang Huajun, Topic: Optimal Analysis of Free Shuttle Buses in Macau Based on Emission Reduction, The Second POMS-HK International Conference, The Hong Kong University of Science and Technology, 07 January, 2011, Lecture Theater G, The Hong Kong University of Science and Technology

3. Lau Cheng Man Diana, Yuen Pong Kau, Topic: Diversity in Private Higher Education: The Case of Macau, 2011 International Conference (Southeast Asia Ministers of Education Organization): Innovation in Teaching, Research and Management in Higher Education, July 14-15, 2011, Ho Chi Minh City, Vietnam

4. Fang Quan, Topic: Review of Bribery Crime of Macau Criminal Law: In Perspective of Legal Interest, Cross-Straits Criminal Law Forum, 17 December, 2011, Beijing

5. Huang Mingjian, Topic: Environmental Protection Law Present Condition in Macau, 23 April, 2010, Government headquarters in Macau

6. Lin Weiqiang, Topic: Three legal issues about medical reforms in Macau, Seminar for 2010 Health Law and academic policy in Taiwan Strait, 23 July 2010, Howard International House, 30, Xinsheng South Road Sec. 3, Taipei, Taiwan

7. Zhao Linlin, Topic: On the Special Investigative Methods in Anti-Corruption, Cross-Strait Forum on Criminal Law, Beijing Normal University, 15 December, 2011, Beijing

8. Zhang Yang, Topic: The relationship research of urban tranformation and medical tourism- case study from Chengdu, Sichuan Provincee, Forum for Contemporary Service Industry Development in the Asia Pacific Region, Macau University of Science and Technology, 10 November, 2010, Hotline Center, Macau

9. Tang Juan, Topic: Strategies on the Development of Macau Grand Prix, Macau, November, 2011, hotline Center, brancah of Macau University of Science and Technology

10. Jiang Zhi Hong, Topic: Quantitative Analysis of Subclass-specific Glycosylation in Human Serum Immunoglobulins G by Multiple-Reaction Monitoring Mass Spectrometry, 10th CGCM Meeting, Shanghai University of Traditional Chinese Medicine, 26-28 August 2011, Shanghai University of Traditional Chinese Medicine

11. Jiang Zhi Hong, Topic: Mass Spectrometry-Based Sequencing and Glycan Profiling of Monoclonal Antibody, 7th National Symposium on Chemical Biology, 27 August 2011, Nanjing University

12. Jiang Zhi Hong, Topic: Mass Spectrometry-Based Innovative Techniques for Glycan Profiling of Immunoglobulins and Antibody Drugs, The 7th International Forum on Development of Chinese Medicine, 22 September, 2011, Tianjin University of Traditional Chinese Medicine

13. Jiang Zhi Hong, Topic: Profiling of IgG Glycan Pattern with HPLC-Chip and Q-TOF Technology, 2011 Forum on Progress of MS Techniques, 25 October, 2011, University of Hong Kong

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博士學位論文精選

Selected Ph.D. Thesis

1.內部社會資本對非營利組織創新的影響研究--以澳門社團爲例

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論文摘要：

“社團社會”是澳門社會的真實寫照，在不足 30 平方公里、只有 55 萬人口的土地上，竟存在著逾 4,800 個社團，社團數量之多、密度之大，堪稱世界之最。當中，社團的存在形式和變遷創新引人關注。

從 16 世紀中葉葡萄牙人抵澳，與本地華人共處分治起，華人社團成爲了政府與民眾之間的橋樑，甚至是一種實現民間自治、與統治階級實行雙軌並行管理的組織。澳葡政府曾不斷嘗試削弱這種民間組織的力量，但由於澳門是多元文化、多種社會勢力相互作用的異質型社會，而且華洋分治傳統影響深遠，因此長時間以來社團反映了特定群體的利益，社團成爲了澳門居民生活中不可劃缺的部份，並蘊釀出獨特的社團傳統及生態。

回歸後社團既與政府合作提供服務，又擔當監督施政的角色。社團的產生和存在機制出現了從“對抗”到“合作”的重大轉向，內部管理亦由以往封閉式的互助轉向協作民主。隨著社會轉型，民主進程的不斷推進，特別是賭權開放以來的近 8 年間，澳門的政治、社會、經濟等方面的變化異常急劇，內部社會資本劇烈改變，正如一項大型調查所顯示：澳門居民實際的社團參與比率並不如想像般高，受訪者同意參與社團組織能夠提升個人社會資本，但對社團的組織和現狀頗爲不滿。在這種背景下，社團的定位、功能、作用必須重新檢討。

社團的變革轉型已迫在眉睫，對於社團的變革而言，組織創新備受關注。而在社會觀察中發現，創新與人際網絡關係、組織結構和成員的認知存在一定關係。

澳門是傳統保守型社會，研究創新是一個發光點，特別是在新的社會形勢沖擊下，社團組織創新應受到學界的關注。本研究主要從社會資本理論和組織創新理論，結合澳門社團歷史和現存的情況，集中探討影響社團創新的內部機制。通過對內部社會資本理論，特別是結構、關係和認知三個維度，以及組織創新理論，特別是技術創新和管理創新兩個維度進行各種分析，構建理論模型以探索各種變數之間的關係，從而探討內部社會資本對組織創新的影響。

關鍵詞：

澳門、社會資本、資源交換、組織創新

1.A Study of the Impact of Internal Social Capital on the Innovation of NGOs: The Case of Nongovernmental Organizations in Macau

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Abstract:

Macao is a society for nongovernmental Organizations: within a land of less than 30 kilometers and a population of around 550 thousand, there are more than 4,800 nongovernmental organizations. The amount and density of nongovernmental organizations in Macao may perhaps top anywhere else in the world, and their forms and variations are certainly worth attention.

Ever since the arrival of the Portuguese colonizers in Macao during the mid 16th century, the colonizers and the Chinese had coexisted under a power somehow shared by both. As a matter of fact, the nongovernmental organizations among the Chinese functioned to bridge the colonist government and local residents, hence the formation a more or less autonomous quasigovernment among the local people in parallel with the colonist government of the Portuguese. Despite the incessant efforts by the Portuguese rulers to weaken their influence, the nongovernmental organizations among the Chinese had grown into a powerful force that had been indispensable to the interactive balance of this multicultural and heterogeneous society. Therefore, a unique tradition of nongovernmental organizations with its distinctive “ecology” (patterns of existence, diffusion, and evolution) had developed in Macao in its long history of the Portuguese colonialism.

In consequence of the handover of the sovereignty of Macao to China, the role of local nongovernmental organizations has quietly altered toward a more service-oriented direction, and a mutual surveillance has been formed between the new Chinese/Macanese government and nongovernmental organizations. In this process, “confrontation” has been replaced by “cooperation” in the mechanism of nongovernmental organizations, and their management style has been reshaped from exclusively mutual assistance to inclusively democratic collaboration. With the ongoing social transformation in Macao in recent years, particularly since the liberalization of the gaming industry, the internal social capital of nongovernmental organizations has witnessed significant change. A massive survey done by local researchers indicates that the rate of Macanese residents’ participation in nongovernmental organizations is not as high as often imagined. In general, those surveyed believe that joining nongovernmental organizations may help to build their social capital, but they are not satisfied

with the situation of nongovernmental organizations in Macao. Under this still evolving circumstance, a reexamination of the position, the function, and the role of nongovernmental organizations in Macao seems to be a pressing task.

Apparently, there is urgent need to reform Macao's nongovernmental organizations, and organizational innovations are crucial to their reformation. It is widely recognized that organizational innovation correlates with social networking or interpersonal relationships, with organizational structures, and with members' awareness.

Macao remains a traditional or conservative society, but it is also a society that has been experiencing some fundamental change thanks to the handover of its sovereignty to China and the liberalization of its gaming industry. It is in this context that organizational innovation within nongovernmental organizations has become a focus of attention among scholars in relevant fields. This study, mainly based on theories of social capital and organizational innovation and on a review of the history as well as the present of Macao's nongovernmental organizations, will concentrate on the internal mechanism of how social capital relates to organizational innovation among nongovernmental organizations in Macao. To be more specific, in this study, by thoroughly analyzing the three dimensions of internal social capital (i.e., organizational structure, interpersonal relationships, and members' awareness) and two approaches in organizational innovation (i.e., technical innovation and managerial innovation), will attempt to establish theoretical models to explain the correlations among different variables and the possible impact of internal social capital on organizational innovation in among Macao's nongovernmental organizations.

Keywords:

Macao, Social capital, Exchange of resources, Organizational innovation

2.廣州常規公交乘客滿意度實證研究

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論文摘要：

城市公共交通系統作爲城市發展的必然產物，是城市道路交通系 統的重要組成部分，是城市文明的重要視窗，同時也是聯繫國民生活、社會生產和流通領域的關鍵環節。世界各國在發展城市公共交通時，都面臨著汽車保有量急劇增長，城市交通嚴重擁堵和公共交通服務水準下降等問題。與此同時，我國的各大城市交通發展也逐步轉向以發展公共交通爲主、大力宣導實行“公交優先”戰略。公交優先，公交 必須優秀，而大城市道路基礎設施的日漸完善及城市用地的日益稀缺、公眾需求多元化，讓城市公共交通發展面臨著前所未有的挑戰。因此，對城市公共交通系統的現狀和存在的問題進行調查，客觀分析，在構建可持續發展的交通結構過程中，做出正確有效的評價，並提出可行的改革措施，是提高公共交通系統服務能力和服務水準、公眾需求滿意度的必由之路，也是當前城市公共交通研究的重要課題。

論文在此背景下，針對廣州常規公交滿意度展開分析研究。首先，基於對國內外顧客滿意度的研究、應用及其在城市交通政策領域的應 用等的回顧分析，確定選擇結構方程模型作爲本文的主要分析工具。在借鑒美國顧客滿意指數的測評模型的基礎上，建立廣州常規公交乘 客滿意度研究測評體系，設計廣州常規公交乘客滿意度指數調查方 案，對廣州常規公交乘客的滿意度進行測評和分析。其次，以廣州常 規公交出行乘客爲調查對象，以公交線路爲基本單位，抽取覆蓋廣州城市七區的 20 條線路進行公交乘客滿意度調查。通過包括乘客預期、感知品質、感知價值、乘客滿意、乘客抱怨和乘客忠誠這六個潛在變量的各個觀測變量的問詢，獲得了廣州常規公交乘客滿意的基本資料。在描述性統計的基礎上對資料進行了因數分析和聚類分析，得出廣州常規公交乘客滿意度主要受感性因數和價值因數的影響，而且這兩個因數的影響程度相當，同時它們也相互影響。利用結構方程模型軟件 PLS-GUI 驗證了所構建滿意度模型的有效性，計算出了廣州常規 公交總體和分類乘客滿意度指數，並對影響乘客滿意的因素進行了分析。其三，建立廣州常規公交乘客流失意圖模型，分析得出乘客投訴 對潛在乘客流失產生直接的、較大的負面影響。利用滿意度模型對所 得資料進行了重要度-滿意度分析和乘客差異性影響分析，找出服務提升方向和改善措施的具體思路與做法，最後對乘客投訴管理和實施 廣州常規公交乘客滿意戰略提出了政策建議。

文章在對廣州常規公交乘客滿意度的研究過程中，注重採用實際 調查、軟件分析、定性和定量方法相結合等多種方法和技術，對廣州常規公交乘客滿意度研究進行了較合理、科學、適用

的分析和評價方法探討。

關鍵詞：

公共交通、乘客滿意度、結構方程模型

2.An Empirical Study on customer satisfaction of conventional public transit of Guangzhou

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Type of Degree:

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Abstract:

As a certain fruit of civilization, the public transit system has played a very important role in urban transit system as well as in city impression. It is considered as the key link of national living, social production and circulation. During the procedure of the improvement of urban public transit, countries, including the developed and developing ones, are all confronted with problems like the accelerated growth of vehicle inventory, serious traffic congestion and downing standard of public transit service. Meanwhile, large-scale cities in China are shifting their strategy of developing city traffic system into a more detailed way. The government has highlighted the "Bus priority" strategy, which calls for excellence both in hardware and software of buses. Whereas, challenged by the gradual maturity of fundamental facility of urban roads, reducing urban land use and diversity of public traffic needs, urban public transit itself is facing a unprecedented confusion of how and where to proceed. For these reasons, an investigation on the status in quo and current difficulties of urban public transit system with objective analysis is an urgent need for the moment. From this way, to give an effective assesement on the procedure of building a sustainable development of urban public transit as well as to raise some feasible evolutional measures is a very significant topic, which will also contributes to the enhancing of public transit satisfaction and standard of public transit service. Backgrounded in these above, this thesis is meant to analyse customer satisfaction of Guangzhou's conventional public transit. Firstly, a review of domestic and overseas studies on customer stisfaction and of how these studies work help to determine the Structural Equation Modeling to be the major analytical tool in this thesis. Using the ACSI Modeling for reference, the evaluating system and a designed scheme of a targeted research focuses on customer satisfaction of Guangzhou conventional public transit are built. Then an assessment and analysation of Guangzhou conventional public transit is available.

Secondly, our research, which focuses on customers of conventional public transit in Guangzhou, has been designed with different bus line as basic unit and covered the random passengers of 20 bus lines in 7 sections of Guangzhou. We acquire some fundamental data by enquring the Observed variable of six Lurking variables including passengers' expectation, perceived quality, perceived value, passengers'

satisfaction, passengers' complaint and passengers' loyalty. Based on the discriptive statistics, we studied the data with factorial analysis and cluster analysis method. The result tells that perceptual factor and value factor are two main influential factors for Guangzhou conventional public transit satisfaction. And they interact at the same time. With the help of the Structual Equation Modeling software PLS-GUI, we prove the validity of the satisfaction modeling built before and figure out the overall and classified passengers' satisfaction index, then make analysis of the different influential factors.

Thirdly, to build up a view modeling of the runnig off of conventional public transit customers to come to a conclusion that passengers' complaint will have a direct and major effect on customers' running off. Accordingly, the application of satisfaction modeling to proceed a Importance-Satisfaction Degree analysis and Passenger Differences Influence analysis is contributed to find out the direction and active measures to develop our urban bus services.

Finally, the very end of this thesis will give some political advices on management of passengers' complaint and strategy of the implement of Guangzhou conventional public transit.

In the course of this study, field survey method, software analysis, qualitative and quantitive analysis etc. are all utilized to work out a comparatively reasonable, scientific and appropriate probe of customers' satisfaction of conventional public transit in Guangzhou.

Keywords:

Public transit, Passengers' satisfaction, Structual Equation modeling

3.獨立學院戰略人力資源管理研究 -- 以吉林大學珠海學院爲例

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論文摘要：

作爲一種特殊形式的高等教育機構，獨立學院已經存在並發展了十多年，取得了令人矚目的成績，也面臨著許多困難和問題。

本論文在理論分析、實證研究和案例分析的基礎上，以吉林大學珠海學院爲研究對象，試圖回答如下幾個問題：

1. 獨立學院發展需要解決的根本問題是什麼？
2. 獨立學院的性能（Performance）如何評估？
3. 獨立學院要實現高性能，需要怎樣的戰略人力資源結構？
4. 獨立學院怎樣才能實現最佳的人力資源配置？

通過對吉林大學珠海學院的分析，本論文得到如下研究結論，回答了上述幾個問題：

1. 獨立學院發展要解決的根本問題是如何從組織戰略的角度規劃、培養和配置人力資源，如何建立一支與組織戰略相匹配的結構合理、穩定和不斷提高的師資隊伍；
2. 作爲一個綜合性的指標，聲譽可以作爲獨立學院性能的評價指標；
3. 提高獨立學院聲譽的根本途徑是建立符合組織戰略的戰略人力資源管理系統；
4. 獨立學院的最佳戰略人力資源配置，並不是單純的研究型高級人才，而是符合應用型人才培養的梯隊式人才結構隊伍。人才的來源可以是內部培養與外部兼職相結合。

關鍵詞：

獨立學院、戰略人力資源管理、聲譽

3.A Study on Strategic Human Resources Management in Independent Colleges -- based on Jilin University Zhuhai College

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Doctor of Business Administration

Abstract:

As a kind of non-traditional higher education institution, Independent College has made great achievements and met many difficulties and problems since it appeared more than 10 years ago.

Based on theoretical analysis, empirical study, and case analysis, the author thoroughly studied Jilin University Zhuhai College, and tried to answer the following questions:

1. What is the key problem to solve for Independent College in its development?
2. How to evaluate performance of an Independent College?
3. What strategic HR structure an Independent College needs to achieve high performance?
4. How to achieve best strategic HR deposition for an Independent College?

After analyzed Jilin University Zhuhai College, the author answered the questions above and drew the following conclusions:

1. The key problem to solve for Independent College in its future development is to plan, cultivate, and depose human resources in alignment with its strategy;
2. As a comprehensive index, 'reputation' can be used to evaluate performance of an Independent College;
3. The key path to improve reputation for an Independent College is to practice Strategic Human Resources Management System in alignment with its strategy;
4. The best strategic HR deposition for an Independent College is to construce a mix of talents in applied research from both inside and outside.

Keywords:

Independent College, Strategic HR Management, Reputation

4.人力資源管理實踐、組織文化及員工態度和績效關係的實證研究

-- 以廣東中山企業爲例

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論文摘要：

近幾十年來，人們越來越認識到，組織文化在企業發展中的重要作用。中國學者從上世紀八十年代開始引入了組織文化的概念，並進行了大量的研究。但這些研究主要是介紹國外的研究成果，或者是針對國內的情況進行定性的研究。以中國企業爲研究對象定量地研究組織文化，目前還十分缺乏。

本論文在進行了全面的文獻綜述的基礎上，提出了組織文化與企業人力資源管理實踐、員工態度和員工績效之間的關係的研究模型，並以廣東省中山市的企業爲研究對象，定量地分析了上述研究模型，對模型中的理論假設進行了實證檢驗。

本論文的實證研究有如下發現：

1. 人力資源管理實踐的各個因素中，內部職業機會、培訓、績效評估、就業保障和參與機制對於組織文化的培育具有正向的顯著影響。企業可以通過對上述因素的加強，促進組織文化的建設。

2. 在中國的企業中，工作規程和利潤分享對於組織文化沒有顯著的影響。這個發現對於中國企業建設組織文化的啓示，並不是說工作規程和利潤分享不重要。如果企業彈性工作規程和利潤分享方面做出一些嘗試，將可能在組織文化的建設方面獲得更多的收穫。

3. 組織文化對於員工態度的三個構成因素（組織承諾、工作滿意度和離職傾向）都有顯著的影響。

4. 組織文化對於員工的關係績效有顯著的正向影響。互助、合作、協調的組織文化，爲員工主動提供關係績效創造了良好的氛圍。

5. 組織文化對於員工的任務績效沒有顯著的影響。其原因可能是員工的任務績效受到多種因素影響，組織文化可能是其中影響較弱的因素，不足以決定其高低。同時，組織文化對任務績效的影響更可能是間接影響，而非較易觀測到的直接影響。

6. 組織文化是企業人力資源管理實踐與員工態度和員工績效之間的重要中介。

關鍵詞：

組織文化、人力資源管理實踐、組織承諾、工作滿意度、離職意向、關係績效、任務績效

4.Empirical Study on the Relationship between Human Resources Management Practics, Organizational Culture, Employee Attitude, and Business Performance – Examples from Enterprises in Zhongshan, Guangdong

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Abstract:

In the past decades, Organizational Culture acted an more and more important role in business operation. Chinese scholars introduced organizational culture into China in 1980s, and did many researches on organizational culture. However, those researches were mostly about introducing research outcomes of outside researches, or qualitative research about organizational culture in China. Few quantitative researches were did on organizational culture in Chinese enterprises.

Based on a comprehensive literature review on organizational culture, the author proposed a research model about the relationships between human resources management practice, employee attitude, and employee performance. The author did a questionnaire survey in 31 enterprises in Guangdong Zhongshan, and test the hypotheses in the research model using statistics tools. The conclusions are:

1. In the factors in human resources management practices, inside job opportunities, training, performance evaluation, job security, and employee involvement have a significant positive relationship with organizational culture. The improvement of those factors can help improve organizational culture in an enterprise.

2. In China, job regulations and profit share are not significantly related to organizational culture. This conclusion doesn't mean those two factors are not important. On the contratry, organization can benefit from a more flexible job regulation and a more open profit reward mechanism.

3. Ornizational culture has significant relationships with three factors of employee attitude: organizational commitment, job satisfaction, and turnover intention.

4. Organizational culture positively affects contextual performance. A cooperative and harmonious organizational culture can help improve contextual performance.

5. Organizational culture has no significant relationship with task performance. The reseason can be organizational culture is one of the many factors affecting task performance, or there is a indirect relationship between organizational culture and task performance.

6. Organizational culture is an important mediator between human resources management practice,

employee attitude, and employee performance.

Keywords:

Organizational culture, Human resource practice, Organizational commitment, Job satisfaction, Turnover intention, Contextual performance, Task performance

5.論宅基地使用權的可流轉性及其實現

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論文摘要：

我國的宅基地使用權制度因應土地公有制的確立而產生。在城鄉二元結構的背景下，宅基地使用權的流轉受到法律和國家政策的嚴格限制。隨著市場經濟體制的進一步發展，宅基地使用權的財產權屬性逐漸彰顯，隱性流轉的現象不斷出現。權利限制規範與自發流轉現實之間的巨大反差引發了人們對於既有限制制度能否存續的疑問。宅基地使用權流轉問題遂成爲學界熱議的焦點，然而，論者對各自觀點說理乏力，方法單一，缺少詳實論證，通常流於意見之表達。本文旨在通過各類規範分析方法，澄清宅基地使用權的可流轉性，並闡述如何通過制度設計以有效實現該權利的流轉。

宅基地使用權的流轉具有確切含義，不同於宅基地置換，其包括物權變動和債權設定兩種形式，而以前者爲主。宅基地使用權具備可流轉性特征，其正當性基礎主要表現在三個方面：其一，由權利性質所決定，宅基地使用權的性質是用益物權，具體而言是地上權。其二，爲權利功能所要求，宅基地使用權的主要功能分別是保障權利人生存利益的實現以及利用宅基地取得收益。其三，通過經濟分析方法驗證，宅基地使用權作爲產權，具備可交易性和排他性。宅基地使用權的合法流轉有助於減少交易費用，實現該權利的真正價值。反之，降低交易費用亦成爲制度變遷的內在動力。值得注意的是，宅基地使用權流轉應受到一定的私法限制，即集體經濟組織成員和承租人的優先購買權限制，國家不能通過公法途徑限制宅基地使用權的流轉。

宅基地使用權可流轉性的實現依賴於權利制度的完善。其一，爲實現宅基地使用權的可流轉性，需要有合理的靜態權利結構作支撐。主體上，宅基地使用權應摒棄身份限制，只要是自然人都可以成爲權利主體，但原始取得宅基地使用權的主體是集體經濟組織成員。內容上，宅基地使用權人對宅基地享有占有、使用和收益的權利，能夠處分宅基地使用權並排除他人的不法侵害，但權利人需合理利用宅基地，遵守土地用途的管制制度及其他約定義務。客體上，宅基地的面積和數量應受到制度上的規範。其二，宅基地使用權需按照一定的基本原則進行流轉。宅基地使用權流轉的基本原則包括兩項：私法自治原則、宅基地使用權與房屋所有權一並流轉原則。其三，無論從物權變動理論抑或從現實交易習慣考察，作爲宅基地使用權流轉的主要方式，以債權契約爲變動原因的宅基地使用權變動應遵循債權形式主義模式。

與同類主題的研究成果相比較，本文系統運用功能分析和經濟分析等規範分析方法論證宅基地使用權的可流轉性，並通過實地調查獲取經驗數據，爲相關結論的證實奠定基礎，此爲本論題研究方法之創新。爲有效實現宅基地使用權的可流轉性，本文從靜態權利結構和動態流轉環節

兩個方面具體詮釋和創設制度內容，包括優先購買權、宅基地使用權和房屋所有權一並流轉原則、公示要件主義等，並批駁和指出某些觀點如改變所有權制度、國家限制宅基地使用權流轉、創設法定租賃權等的不合理性。此爲本論題研究內容之創新。

關鍵詞：

宅基地使用權、流轉、正當性、權利結構、原則、變動模式

5.On the Circulation of the Right to Use House Sites and Its Realization

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Faculty of Law

Name of the Supervisor:
Professor Mi Jian

Graduated Year:
2011

Type of Degree:
Doctor

Abstract:

The right to use house sites in China appears on the basis of the public economy. Against the backdrop of dual economic structure of urban and rural areas, circulation of the right to use house sites is strictly restricted by law and national policies. With the further development of the market economy system, the nature to property of the right to use house sites was gradually highlighted and the phenomena of recessive circulation appeared constantly. Enormous divergences between the norms of the limitations of the right and the fact of spontaneous circulation have embarked people's doubt that whether the current system of restrictions could continue. Therefore, the problem of circulation of the right to use house sites has been embarked a heated discussion in academic circles. However, what they have discussed usually lacks enough proof, strong arguments and various methodologies and often just the expression of opinions. This paper aims to adopt various standard analytical methods to clarify the feasibility of circulation and state how to achieve the effectiveness of the circulation of the right by the system designed.

The circulation of the right to use house sites which has the precise meaning is different from the replacement of house sites. The circulation of the right to use house sites includes two forms: real right alteration and creditor's rights setting. The former is predominant. The right to use house sites has the characteristic of circulation. There are three aspects to support the basis of legitimacy to circulation. Firstly, it is determined by nature of the right which is an usufructuary right. In more specific terms, it is the superficies. Secondly, according to the function of rights, the main function of the right to use house sites is to guarantee achievement of the proprietor's survival interests and to seek profits from the dispose of the realty. Lastly, examined by economic analysis, the right to use house sites as property right has two attributes, that is, tradability and exclusiveness. The legal circulation of the right to use house sites is beneficial to reduce the transaction costs so as to achieve the true value of this right. On the contrary, reducing transaction costs can impel institutional change. It is noticeable that the circulation of the right to use house sites should be restricted by the private law to some extent, that is, the limitation of the right of preemption of Collective economic organization members and Lessees. The government can not restrict the circulation of the right to use house sites by implementing the public

law.

The circulation of the right to use house sites relies on the completed right system. Firstly, the circulation of the right to use house sites needs reasonable static right structure to support. To the holder of the right, the restriction of identification should be discarded and any person can be the holder of right. Nevertheless, the holder who originally acquires the right to use house sites is the member of collective economy group. As for its content, the holder of the right to use house sites has the right to process, uses and seeks profits from the dispose of the right, and excludes other's illegal infringement. But the holder must use house sites rationally and comply with system of land use control and other agreements. To object of the right, the number and the acreage of house sites should be regulated by rules. Secondly, the right to use house sites should be circulated based on certain basic principles which include privatautonomie and the ownership of the house together with the circulation principles. Thirdly, regardless of the prospective of real right alteration theory or the real usage of trade, the alteration of the right to use house sites based on the obligatory right and contracts, as the main way of the circulation of the right of the house site, should be complied with creditor's rights formalism.

Comparing with other similar topical research, this paper adopts functional analysis and economic analysis methods which are normative analyses to argue the feasibility of circulation of right to use house sites. By the empirical data, it can lay a solid foundation for relevant verifying of conclusions which is the innovation of the paper's research methodology. To achieve the circulation of the right to use of house sites, the paper explains and sets up the content of the system in the aspects of Static right structure and dynamic circulation which include the right of preemption, the together circulation of the right to use of house sites and ownership of houses, the creation mode of publication, etc. This paper criticizes and points out the irrationality of some statements which includes the change of ownership, the circulation of right to use house sites through the state intervention, and setting up legal leasehold. This is the innovation of content in this paper.

Keywords:

The right to use house sites, Circulation, Legitimacy, The structure of right, Principle, Pattern of transformation

碩士學位論文精選

Selected Master Thesis

1.領導 -- 部屬關係與員工創新

毛文芊
行政與管理學院 - 人力資源管理學

指導老師姓名：

孫立雲　副教授

畢業年度：

2011

學位類別：

工商管理碩士

論文摘要：

本研究从員工的角度出發，探討領導-部屬交換與員工創新之間的關係以及內在動機與工作投入在領導-部屬交換與員工創新關係間的中介作用。本研究數據主要来自中國內地的多家營利性企業的 163 名主管及其屬下員工的配對問卷調查資料。回歸分析結果顯示：領導-部屬關係與員工內在動機呈正相關；領導-部屬關係與員工工作投入呈正相關；員工內在動機與員工工作投入在領導 - 部屬關係與員工創造力起到中介作用。

關鍵詞：

領導 - 部屬關係、內在動機、工作投入、創造力

1.Leader-member exchange and employee creativity

Mao, WenQian

Faculty of Management and Administration, Human Resources Management

Name of the supervisor：

Associate Professor Sun, Li Yun

Graduated Year:

2011

Type of Degree:

Master of Business Administration

Abstract:

The study is to examine the relationship of leader-member exchange (LMX) and employee creativity, and the mediating effects of intrinsic motivation and work engagement on the relationship between LMX and employee creativity.

Data were obtained from 163 leader-follower dyads in multiple firms of China. Results of the study showed that LMX is positively related to intrinsic motivation and work engagement, and intrinsic motivation and work engagement mediate the relationship between LMX and employee creativity.

Keywords:

Leader-member exchange, Intrinsic motivation, Work engagement, Employee creativity

2.管理層安全價值觀與員工安全行爲公民：中介分析

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孫立雲　副教授

畢業年度：

2011

學位類別：

工商管理碩士

論文摘要：

本文研究了管理層安全價值觀對員工安全公民行爲的影響機制。在本澳中小企業收集了共 201 份問卷，問卷採用員工及其直接主管作配對的方式來填寫。結果顯示員工安全知識在管理層安全價值觀和員工安全公民行爲起到完全中介的作用；安全動機在管理層安全價值觀和員工安全公民行爲起到部分中介的作用。

關鍵詞：

安全價值觀、安全知識、安全動機、安全公民行爲

2.A Study on Relationship of Management Safety Values and Safety Citizenship Behavior：Mediator Effect

Ng, Lai Leng

Faculty of Management and Administration, Human Resources Management

Name of the supervisor：

Associate Professor Sun, Li Yun

Graduated Year:

2011

Type of Degree:

Master of Business Administration

Abstract:

We examined the mechanism through which management safety values influence safety citizenship behavior in the study. We collected 201 questionnaires in supervisor-subordinate dyads from multiple medium-sized and small firms in Macau. Results showed that employee safety knowledge fully mediated the relationship between management safety values and safety citizenship behavior, and safety motivation partially mediated the relationship between management safety values and safety citizenship behavior.

Keywords:

Safety values, Safety knowledge, Safety motivation, Safety citizenship behavior, Work safety

3.工作壓力與員工創新

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指導老師姓名：

孫立雲　副教授

畢業年度：

2011

學位類別：

工商管理碩士

論文摘要：

本研究從員工的角度出發，探討障礙性工作壓力、挑戰性工作壓力對情緒衰竭和員工創新的影響，以及情緒衰竭在障礙性工作壓力、挑戰性工作壓力與員工創新之間的中介作用。本研究數據來自中國內地的多家營利性企業的 163 名主管及其屬下員工的配對問卷調查資料。回歸分析結果顯示：情緒衰竭障對礙性工作壓力、挑戰性工作壓力與員工創新之間起到中介的作用。

關鍵詞：

障礙性工作壓力、挑戰性工作壓力、情緒衰竭、員工創新

3.Job Stress and Employee Creativity

Chen, Lixia

Faculty of Management and Administration, Human Resources Management

Name of the supervisor：

Associate Professor Sun, Li Yun

Graduated Year:

2011

Type of Degree:

Master of Business Administration

Abstract:

This study is to examine the mechanism through which hindrance job stress and challenge job stress affect emotional exhaustion and employee creativity. Data were obtained from 163 leader-follower dyads in firms of China. Results of the study showed that emotional exhaustion fully mediated the relationship between the hindrance job stress and employee creativity, and between the challenge job stress and employee creativity.

Keywords:

Hindrance job stress, Challenge job stress, Emotional exhaustion

4.工作價值觀及職業承諾對工作績效的關聯性研究

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指導老師姓名：

聶婷　助理教授

畢業年度：

2011

學位類別：

工商管理碩士

論文摘要：

本文研究澳門企業員工的工作價值觀現狀，並進一步探討其以職業承諾及關聯績效的影響關係，建立了企業員工的工作價值觀、職業承諾與工作績效的影響關係模型。通過對澳門各類型企業的 505 名企業員工及 105 名主管進行問卷調查，用實證的方法對三個變數的影響關係進行了研究，結果發現：相關分析表明員工的工作價值觀與職業承諾、工作績效間有著顯著的相關性；回歸分析則進一步表明，員工的工作價值觀對職業承諾與工作績效有顯著的影響作用，並且職業承諾在工作價值觀與工作績效之間存在一定的中介作用，並且對於澳門企業的人力資源管理實踐作出建議。

關鍵詞：

職業承諾、工作價值觀、工作績效

4.A study of relations between work value, job commitment and job performance

Wong, Wai Si

Faculty of Management and Administration, Human Resources Management

Name of the supervisor：

Associate Professor Nie, Ting

Graduated Year:

2011

Type of Degree:

Master of Business Administration

Abstract:

This research aims to explore the relations among work value, career commitment and job performance's relationship in Macau. The study also builds up the model between work value, career commitment and job performance.

The samples of this research were employees in Macau, with their supervisor check on employees' job performance. 505 questionnaires were sent to the employees and 105 were sent to their supervisors. The research results are as follows: A positive correlation is found between work value, career commitment and job performance. A positive regression is found between work value, career commitment and job performance. Mediated effect was shown in career commitment toward work value and job performance. This thesis would provide some useful suggestion to improve their human resources management in Macau.

Keywords:

Career Commitment, Work Value, Job Performance

5.商業銀行價值影響因素分析：以中國內地以及香港地區爲例

何建聰
行政與管理學院 - 財務學

指導老師姓名:

陳省宏　副教授

畢業年度:

2011

學位類別:

工商管理碩士

論文摘要：

銀行業無論在中國內地或香港，仍處於金融業的主體地位。作爲國際金融中心的香港，曾在金融海嘯期間，信貸危機爆破，令到銀行業一度陷於衰退。鑒於香港銀行業自身經營基礎較爲穩健，內部儲備比較充裕，同時受惠於內地政策及其他亞洲新興經濟體發展的增長勢頭，自從度過金融海嘯後，香港銀行業在 2009 年下半開始恢復，2010 全面復蘇。而在 2009 年 6 月 29 日，中央確立香港爲人民幣跨境貿易結算試點地區以來，香港銀行立即發生業務收入增加的即期效應，同時配合貿易發展的各項金融業務也活躍起來。這就令到香港銀行業更明確瞭解到與內地同業甚至跨業發展的重要性和必要性。誠然，內地銀行業自混業經營取得實質性進展以來，在近年整個銀行業發生了歷史性變化，在經濟社會發展中發揮了重要的支撐和促進作用，有力的支持中國國民經濟的發展。到 2009 年底，內地銀行業金融機構資產總額達到 78.8 萬億元，比年初增長 26.2%，實現稅後利潤 6684 億元，平均資本回報率達 16.0%以上，其中金融業佔國民生產總值比例增長率高達 9.76%。但與國際上先進商業銀行相比，內地銀行業務流程的資訊化、自動化和智慧化水準較低，特別是中間業務的發展水準。因此，內地銀行業亦清晰明白借鑒香港銀行業管理經驗的迫切性，諸如的工商亞洲、建銀亞洲在香港蓬勃發展就是見證。

有鑑於此，對於銀行業管理者和投資者來說，清楚瞭解兩地銀行業的管理模式、發展態勢和價值評估是至關重要的。但鑒於兩地銀行的體制結構、營運戰略、監管模式的差異，管理者如何評估銀行自身的價值以及鑒別其價值影響因素，從而使兩地銀行的合作更加順暢和穩固呢？從投資者角度出發，除了銀行股價外，還能通過何種途徑更清晰瞭解銀行間的可比價值呢？爲此值得深入的討論和研究。誠然，針對香港和內地銀行價值及其影響因素的相關研究文獻不多。

本文討論了兩地銀行業的概況，經過國內外相關實證研究文獻總結的基礎上，對兩地銀行價值及其影響因素進行較全面的實證分析。本研究選取 2003 年至 2010 年期、兩地 20 間商業銀行爲研究對象，使用多種統計方法，較全面和系統地考察風險控制能力、成本控制能力、資產充足度、資產質量、盈利能力、管理模式、區域特徵、金融環境、政府政策等多個微觀和宏觀關鍵指標對銀行價值的影響。筆者希望通過本研究能夠藉此爲兩地銀行業的管理者和投資者對於銀行價值的評估和鑒定提供營運戰略和管理決策所需參考之資訊。

關鍵詞：

香港銀行、中國內地銀行、商業銀行、銀行價值、影響因素

5.The Analysis of Determinants to the Value of Commercial Banks : A Case Study on the Mainland China and Hong Kong

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Faculty of Management and Administration, Finance

Name of the Supervisor:

Associate Professor Chen, Hsing Hung

Graduated Year:

2011

Type of Degree:

Master of Business Administration

Abstract:

Banking is in the pivotal position of financial industry whether in Hong Kong or Mainland China. As a well known international financial centre, Hong Kong Banking fell into Recession During the financial crisis and credit crisis explosion. Regarding Hong Kong Banking had a steady operation foundation and plenty of capital reserves and benefited from the policies of Mainland China and the development of economic growth by the other Asian emerging economies, it began to recover in 2009 and restore completely in 2010. Meanwhile, since Hong Kong was announced by the central government that it had transacted the first cross-border RMB trade settlement as the pilot areas in June 29, 2009, immediate effect was happen: the business revenue of banking was increased quickly, simultaneously financial business with the trade development were active. It leaded to Hong Kong banking specifically understand it is necessary and important to cooperate with Mainland. On the other hand, after acquiring the substantial progress by the structural reforms, Mainland banking had a historic change in recent years. It played an important role in supporting and promoting on Economic and social development. At the end of 2009, Mainland banking financial institutions reached RMB 78.8 trillion total assets which had 26.2% increase compared to the beginning. It achieved the after tax profit RMB 668.4 billion, with an average rate of return of 16.0% over the capital, which the growth rate of financial Industry on GDP run up to 9.76%. However, the Information technological、automatic、intelligent level of business Process in Mainland banking is far way from the international, especially the intermediary business. So Mainland banking clearly understands that is urgent to use the experience of Hong Kong banking for development, such as the witness of flourishing of ICBC (Asia) and CCB (Asia) in Hong Kong.

Therefore it's important for the Banking regulators and investors to clearly understand and master the management model, development trend and value evaluation of Hong Kong and Mainland banking. But the Institutional structure, business strategy, regulatory model are difference between them, Based on the situation, how to evaluate banks value and identify the value factors for the regulators making the Cooperation more smooth and stable, in addition are there an other way to master the banks' value beside the stock price for the investors? Regarding it's worth for further discussion and study. However, we don't have much related research literature and information on the topic.

In the view of the reasons, we do Comprehensive empirical analysis about the value of Hong Kong and Mainland banks basing on summary of the relevant empirical studies of domestic over the world. This thesis selected sample data from 2003 to 2009 of 20 banks from Hong Kong and Mainland and used variety of statistical methods to investigate the risk control, cost control, asset adequacy, asset quality, profitability, management, regional characteristics, financial conditions and government policies in micro and macro views to influence on banks value. This thesis aims to give a business strategy decision making advice to regulators and investors on the evaluation and investment of the banks' value of Hong Kong and Mainland.

Keywords:

Hong Kong Bank, Mainland Bank of China, Commercial Bank, Banking Value, Determinant factors

6.澳門住宅市場需求研究分析

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畢業年度:

2011

學位類別:

工商管理碩士

論文摘要：

在整個房地產業中，住宅業是其核心部分，無論是房地產業還是其它關聯產業，還有經濟的發展和社會的穩定，住宅業都對其有著明顯的影響。住宅和人類的生存和發展密切相關，是人類生存在社會中的基本需要。

供給和需求是住宅市場中的兩個基本要素。這兩個基本要素之間，需求決定供給、供給反映需求。因爲供給的對象目標和最終目的都是爲了滿足需求。住宅市場的供給是爲了人類住房的需要而服務的。需求的總量和結構決定著供給的總量和結構。所以，科學、合理地研究和分析住宅市場的需求有著重要的意義。

住宅的需求會因人、因時、因社會、因環境的不同而有所差別。澳門住宅市場乃至房地產市場自上世紀九十年代初開始出現嚴重的供求失衡現象。因爲房地產業的高利潤回報，本地和外地投資者爲了逐利，盲目開展房地產項目，以至澳門房地產市場出現供過於求的現象。整個房地產業處於低谷，住宅的大量空置現象尤爲明顯。後經歷了約十年的調節至本世紀初才得到了一定的復蘇。吸取過往的教訓、以需求爲導向的科學發展觀成爲澳門房地產業發展的基礎。對澳門住宅市場的需求進行研究，分析其影響因素，將有助於澳門政府對住宅市場的發展進行有效的調控，有利於住宅業的健康和持續穩定的發展。

本文以澳門住宅需求爲研究目標，通過運用管理學、統計學、計量經濟學、消費者行爲學等理論與方法，回顧了澳門住宅業發展的歷史，系統剖析了澳門住宅市場的發展現狀，分析了澳門住宅市場的需求特徵和其影響因素，從現有數據及資料出發，運用規範研究和實證研究相結合的方式，對澳門住宅市場需求影響因素進行了探討，運用回歸分析方法，建立澳門住宅市場需求模型，最後提出了澳門住宅業與經濟協調發展的建議。

關鍵詞：

澳門、住宅市場、需求、影響因素、回歸

6.The Demand Research and Analysis of Macau Residential Market

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Faculty of Management and Administration, Finance

Name of the Supervisor:

Associate Professor Liu, Cheng Kun

Graduated Year:

2011

Type of Degree:

Master of Business Administration

Abstract:

Among the real estate industry, residential market is key element. The residential market has great impact on the whole real estate industry and its related industries, and the economic development and social stability as well. Residence closely relates to the existence and development of human beings, which are the basic needs of humans to live in the society.

Supply and demand are the two key elements in residential market. Demand decides supply, and supply reflects the demand. The existence of supply target and purpose is eventually aiming to satisfy the needs. The supply provided by the residential market aims to satisfy the human living need. The quantity and structure of demand decides the quantity and structure of supply. Therefore, analysis on residential market scientifically is meaningful. The residential need will change by the differences between people, timing, social back ground and environment. To be specific, the Macau residential market has lost its balance of supply and demand since 1990s.

Attracted by the high investment return rate, domestic and overseas investors have been developing the property projects blindly, which has led to the over supply phenomenon in the industry. When real estate reached its bottom, the percentage of unused property is exceptionally high. It takes about 10 years for the real estate industry to recover in the beginning of 21st century. To avoid making the same mistake again, demand-oriented development perspective should be set up as the basis of the Macau real estate development. Perform analysis on the residential market and understand the elements that affect the market will help to enhance Macau governmental monitoring on the residential market and ensure the healthy and sustainable development of the market.

The essay analyzes on the Macau residential needs using the theory and methodology of Management, Statistics, Econometrics, and Consumer Behavior. It performs overview on the historical development of Macau residential market, conduct systematic analysis on the current market situation, characteristic of residential need and the elements affects the market. It discusses on factors affect the Macau residential need based on data analysis and case study. It also builds up the demand forecast model for the Macau residential market using the Regression Methods and provides the reader with the recommendation on how the development of Macau residential industry could be coordinates with the development of economy.

Keywords:

Macau, Residential Market, Demand, Influence Factors, Regression

7.澳門公務人員公積金投資績效評比之研究

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行政與管理學院 - 財務學

指導老師姓名:

朱順和　助理教授

畢業年度:

2011

學位類別:

工商管理碩士

論文摘要：

老年人的生活保障問題向來是國家或地方政府關注的重要問題。自澳門進入人口老齡化以來，老年人口比率不斷增加，養老金覆蓋率不足，更是政府將要面臨的重要問題。公積金制度是澳門公務人員今後退休保障制度的改革，同時亦標誌著澳門社會未來之退休養老制度的發展方向。

本研究對澳門公務人員公積金之 66 種投資組合進行分析，利用夏普比率、特雷諾比率、詹森比率、資訊比率及風險值之夏普比率五種績效指標對公積金投資績效進行評比研究，目的在於使公務人員選出適合自己的投資組合。

實證結果指出，在現時公積金的投資組合中，高風險的投資項目不一定帶來高收益。另外，供款項目中的聯博環球股票投資基金對投資績效具較大的影響；以投資組合的追蹤誤差來看，各投資組合的報酬率均不能超越目標市場的基準。由於過往的公積金投資績效不屬理想且供款項目的配置出現了問題，建議澳門退休基金會慎選公積金的供款項目，以及供款人應選出適合個人的投資組合。

關鍵詞：

退休基金、確定給付制、確定提撥制、夏普比率、追蹤誤差

7.A Study of Measurement on Investment Performance of Provident Fund for Civil Service in Macau

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Assistant Professor Chu, Shun Ho

Graduated Year:

2011

Type of Degree:

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Abstract:

Ensured the livelihood of the elderly is important issues, which has always been concerned by national and state government. Since the population of Macau is being entered the aging society, the population of older people is growing. In this case, lack of the pension coverage ratio will make the government facing the important problem. Provident fund scheme is the evolution for retirement system to Macau civil services, and it will also be the future development of pension security system for the most society in Macau.

This research is going to analyze the sixty-six portfolios of provident fund scheme for workers in the public services. In additional, using five different performance indexes, they are Sharpe ratio, Treynor ratio, Jensen ratio, information ratio and value at risk of Sharpe ratio to evaluate the provident fund scheme, in order to enable the civil services to select their suitable portfolio.

The results indicate that the high-risk investment item cannot be brought the high return in the present provident fund scheme. Researches are also found that Alliance Bernstein global equity investment fund is taken greater impact on investment performance. For tracking error, the portfolio return rate cannot be exceeded the benchmark of target market. In conclusion, the past performance is showed that is not a good investment for the provident fund scheme and the selection is occurred problem. The results suggest the pension fund department need to select the right investment item carefully and the investors should select their suitable portfolio.

Keywords:

Retirement pension, Defined benefit plan, Defined contribution plan, Sharpe ratio, Tracking error

8.中國房地產相關政策對房地產企業股價影響研究

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畢業年度:

2011

學位類別:

工商管理碩士

論文摘要：

本文以香港股票市場爲標的，結合國內的實際情況，研究中國的房地產相關政策對在港上市的內房企業，以及具有國內地產開發業務的香港地產企業股價的影響。以求發現市場對中國政府的房地產相關政策的反應。本文以事件研究法進行研究。事件研究法是一種統計方法，通過對異常收益率的平均和累計，分析特定事件對股票市場證券價格的影響。主要研究了以下幾個方面的問題：1.分別研究了上調和下調借貸利率對內房企業和具有內地地產業務的香港地產企業，它們的市場價值所受到的影響情況；2.是研究了中國政府的房地產調控政策，對內房企業和香港地產企業的市場價值影響。

根據實證分析的結果表明：1.從總體上來看，於研究期間的上調借貸利率政策對內房企業和香港地產企業的市場價值具有顯著的影響，並且股價於事件信息公佈後上升。2.從總體上來看，於研究期間的下調借貸利率政策對內房企業和香港地產企業的市場價值具有顯著的影響，股價於事件信息公佈後出現滯後上升的現象。3.從總體上來看，於研究期間中國政府的房地產調控政策對內房企業和香港地產企業的市場價值都不具有顯著的影響。

關鍵詞：

事件研究法、房地產政策、利率調整

8.A study of the impact of China's real estate related policy on stock price

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Associate Professor Song Yu

Graduated Year:

2011

Type of Degree:

Master of Business Administration

Abstract:

This paper base on the Hong Kong stock market, combining the domestic practical circumstances in order to discover the market reaction to the Chinese government real estate related policies. This paper aims to study the impact of the listed domestic real estate enterprises and as well as the Honk Kong enterprises invested in domestic real estate industry stock prices under China's real estate related policies. This paper employs an event study methodology for my following investigation. An Event study is a statistical method, with the average and accumulative total of the abnormal returns, analyzing the impact on the price in the stock market by a particular event. This paper examines the following issues: 1) Studying the market prices under the impact of increasing and decreasing of the lending rate both domestic real estate and the Hong Kong enterprises which possessed domestic real estate business. 2) Analyzing the domestic real estate and the Hong Kong real estate business market prices under the influences of China's real estate regulatory policy.

The analysis shows: 1) In general, during the studying period, the increasing lending rate policy had a significant impact to the market price of the domestic real estate and the Hong Kong real estate business and the stock price was raised up after the event information announced. 2) During the studying period the decreasing lending rate policy the decreasing lending rate policy had a remarkable impact to the market price of the domestic real estate and the Hong Kong real estate business and the stock price was lagged raised up after the event information announced. 3) Overall in the studying period, the China's real estate regulatory policy with no significant impact to the market price of the domestic real estate and the Hong Kong real estate business.

Keywords:

Event Study, Real Estate Policy, Interest Rate Adjustment

9.澳門城市環境因素對房價的影響

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論文摘要：

城市綠化和水體景觀，以及良好的環境質量等因素給身處其中的人帶來的一些附加值，我們稱其爲怡人性。但是怡人性很難被評測，所以現代城市規劃和開發很難將其結合到其中。澳門政府和房地產開發商至今也很少客觀的將這些因素帶來的影響運用到房產的定價以及與房價相關的決策中。但是特徵價格法 (Hedonic Price Method) 卻提供了一個適當的方法去衡量這些外在的因素如何影響房產的交易價格。本論文選取澳門居民住宅作爲研究對象，选取住宅的朝向，建筑面積，樓層高低，卧室數量，洗手間數量，景觀水體的能見度，公共休閒公園及污水處理廠離住宅的遠近度，以及交通噪音等關鍵因素來探究環境對房價的影響。

本文選取了澳門黑沙環新區 5 個具有相似價位、樓齡、設計結構，滿足大衆購房喜好的高層私人住宅樓盤作爲樣本。670 個樣本交易數據及樓盤單位資料取自澳門 3 家知名房地產交易商網站及澳門電子地圖。環境相關資料則通過實地考察並結合電子地圖收集得到。兩種特徵價格函數模型(線性及半對數)被構建，相比之下半對數模型提供了更高的解釋度及更可靠的預測。借助 SPSS 統計軟體分析發現，在其他特徵不變的情況下，有水塘景的住宅房價上升 6.0%；有海景的住宅房價上升 4.2%；距離公共休閒公園 200 米以內的住宅，房價上升 12.3%；距離污水處理廠 200 米以內的住宅，房價下降 3.1%；緊鄰交通主幹道，交通噪音較高的住宅，房價上升 13.9%。本研究證明特徵價格法可以很好的應用於研究澳門居民住宅市場。本文擬通過對澳門住宅價格研究，探討澳門環境因素對澳門住宅價格的影響，從而爲澳門政府有關部門制定政策、開發商住宅開發定位、定價以及居民購房者提供一些有益的參考。

關鍵詞：

Hedonic 價格模型、居民住宅、住宅特徵、特徵價格、城市環境因素

9.Impact of Urban environmental factors on the Price of House in Macau

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Associate Professor Sheng Ni

Graduated Year:

2011

Type of Degree:

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Abstract:

Urban green space, water body landscape, and good environmental quality will bring some added values to the people who live in, which we call amenity. But the amenity is difficult to assess and incorporate into modern urban planning and development. The local government and real-estate developers in Macau have seldom objectively factored these attributes into property pricing and associated decisions. The hedonic pricing method offers an appropriate approach to gauge such external benefits which contribute to real-estate transaction prices. This study explored the impacts of key environmental elements on residential housing value in Macau. Besides structural characteristics such as apartment size, floor height, number of bedroom, number of bathroom and window orientation, environmental attributes of apartments such as water bodies view, proximity to public recreational park and sewage treatment plants, and exposure to traffic noise are considered.

The study selected five high-rise private residential real estates in the new area of Areia Preta as samples, which have similar price, age, design structure, and satisfy the preferences of the public to purchase. Transaction price data and structural attributes of 670 dwelling units were acquired from three main real estate transactions' websites as well as electronic maps of Macau. Data on environmental attributes were collected in the field or from electronic maps. Two functional hedonic pricing method models, linear and semi-log, were constructed. Results showed that the semi-log model offered comparatively stronger explanatory power and more reliable estimation. It was found that view of reservoir and view of sea contributed implicitly 6.0% and 4.2% to the selling price. If dwelling unit was located within 200m to public recreational park, the price increased by 12.3%. If dwelling unit was located within 200m to sewage treatment plants, the price decreased by 3.1%. If dwelling unit was close to traffic main road, the price increased by 13.9%.

The study demonstrated that hedonic pricing method could be well applied to investigate the Macau residential housing market. By exploring how the environmental factors affected Macau residential housing price, this study could help the decisions of policy maker and property developers concerning urban planning, urban nature conservation, property development and design of ecological green-space networks

Keywords:

Hedonic price model, Residential housing, Residential attributes, Hedonic price, Urban environmental factors.

10.在澳門中小學推行以普通話教授中文之可行性研究

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論文摘要：

澳門是一個以粵方言人士爲主的社會，由於本身是國際大都會，長期以來，中、英、葡語文教育是澳門各界人士所關心的問題。這包括中、英、葡語文科教學及以這三種語言作爲學校各科的教學媒介語言。如今，澳門回歸祖國後，兩地在經貿及文化上的交流越見頻密，兩地學生的交流亦不斷增加，學校自 90 年代開始增添普通話的學習元素。提高市民「三文四語」的能力（三文：中文、英文、葡文；四語：葡語、粵語、英語和普通話），這是澳門特區政府明示的語文教學政策。

目前澳門中、小學校課程有中文、英文和普通話三個語言科目，部份學校設有葡文科。中文用粵語講授，目標在訓練學生的讀寫和粵語的聽說。普通話是獨立科目，原則上以普通話授課，目標在訓練學生的普通話聽說能力及教授漢語拼音，方便學生自學。中文（指粵語）、英文及葡文都是學校學科的教學媒介語。

基於語言政策的改變，時代的變遷，不少學校相繼推行普通話教學，在中小學全面開辦普通話科。推行多年，學生的普通話水平強差人意，甚至連基本的對答都有困難。此時，有識之士就提出參考鄰近地區教學方式，用普通話教中文，提升學生口語及寫作能力。按照澳門法規，學校的教學語言有自由選擇權，學校可按情況而自訂教學語言。故此，澳門可否全面推行普通話教學，以普通話取代廣東話作授課語言，是近年教育界熱熾的討論話題。

本研究旨在拋磚引玉，除了分析澳門中小學全面推行以普通話教授中文之可行性外，還就部份內容提出一些意見。例如：在現行的政策提出意見，如何能解決施行的困難、學校的配合、特區政府如何作出支援等。筆者希望本論文能爲中文教育帶來新的思維。

關鍵詞：

三文四語、普通話教授中文、施行、支援

10.A Feasibility Study on the Implementation of Teaching Chinese Subject by Using Putonghua in the Primary and Secondary Schools of Macau

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Name of the supervisor:

Guest Assistant Professor WONG, CHAM LI

Graduated Year:

2011

Type of Degree:

Master of Public Administration

Abstract:

Macau is a society consisting of mainly Cantonese. Because it is also an international city, the language education in Chinese, English and Portuguese are for long a concern of the community. These include the teaching of the three languages and as a medium of instruction in schools.

After the handover, the economic and cultural exchanges between the Chinese mainland and the local people and students have become increasingly closed. Many schools have put in forth the study of Putonghua in their curriculum. To enhance the mastery of three languages and four speaking tongues has become the policy target of the Macau SAR Government.

At present there are Chinese, English and Putonghua language studies in the primary and secondary schools of Macau. A few of them has also Portuguese classes. Cantonese is used as the medium of intruction in the Chinese subject. Putonghua is an independent subject and the romanized system will be taught.

With the change of language policy with the passage of time, a lot of schools have put in place Putonghua programes. But the Putonghua level of students has not been remarkably improved after many years. With this, some people suggested to use Putonghua to teach Chinese subject, to learn from the neighoring region. According to the law of Macau, schools are free to choose their medium of instruction. So whether Macau can adopt Putonghua and replace Cantonese in teaching has now become a heat issue of discussion in Macau.

This Thesis will embark on a feasibility study on the implementation of teaching Chinese subject by using Putonghua in the primary and secondary schools in Macau and a number of suggestions will be made. It is hoped that it can bring some new insight on the topic.

Keywords:

Three languages and four speaking tongues, Using Putonghua to teach Chinese subject, Implementation, Support

11.澳門陽光政府建設的制度設計和實施評價

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論文摘要：

澳門特區近年急速發展，經濟及社會環境不斷變化，新生的社會公共問題隨之湧現，譬如促進社會分配更加合理化問題、有效推動區域合作問題、應對社會結構的變遷問題等。面對這些新問題和新矛盾，澳門政府需要新的思維和舉措來積極面對。特首崔世安先生在 2010 年的施政報告中明確提出「陽光政府」並加強科學決策的施政理念和方向，提高特區政府的施政水準和執行能力，以面對澳門日益複雜的公共事務。

本文就「陽光政府」這一概念和基本制度深入淺出，用「新制度」理論作爲分析途徑來探討澳門陽光政府的建設。首先是對陽光政府的研究做文獻回顧，對陽光政府這一概念進行學理分析。其次，在充分瞭解陽光政府的內涵、屬性以及構建層面所需要的制度後，總結出澳門特區政府構建陽光政府的概況。研究結果表明：澳門特區政府在短短一年時間以內，在構建透明政府方面、責任政府方面以及廉潔政府方面做了不少的工作，出臺的四項制度均涉及到該三個方面的建設。但建設陽光政府是一個龐大的體系工程，還需要根據陽光政府的基本制度，借鑒國外和其他地區的經驗陸續出臺相關的制度以保證澳門陽光政府可持續性的建設。之後，筆者憑藉自己有限的學識，初步設計出適用於澳門的重大事項公示制度和重大事項聽證制度的流程圖以作參考。最後筆者根據目前陽光政府的三個方面的建設情況提出一些微薄的建議，旨意促進澳門政府陽光滿溢。

關鍵詞：

陽光政府、透明、廉潔、基本制度

11.A Study of System Design and Implementation Evaluation of Sunshine Government Construction in Macau

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Professor Yan Qiang

Graduated Year:

2011

Type of Degree:

Master of Public Administration

Abstract:

In recent years, along with rapid development of the Macao Special Administrative Region, and economic and social environment changes, new social problems emerged in public, such as promoting the rationalization of social distribution more effectively, promoting regional cooperation, and addressing issues of social structural changes. Faced with these new problems and new contradictions, new thinking and initiatives to actively face these problems are demanded from Macau government. In the 2010 Policy Address of Mr. Cui Shian, Chief Executive, the "Sunshine Government" has been clearly stated, to strengthen scientific decision-making and direction of policies and conceptions to improve the standard of the SAR Government's policy and implementation capacity to face public affairs of Macau that have been increasingly complicated.

In this paper, we focus on the concept of "Sunshine Government", and with the "new system" theory as an analytical approach to study the construction of the Sunshine Government in Macao. First, we review previous literature study on the Sunshine Government and make a theoretical analysis of the concept. Second, with full understanding of the concept, properties and systems needed to construct Sunshine government, we sum up the general situation of the construction of Sunshine Government in Macau SAR. Study has shown that Macao SAR Government has done a lot of work in a short period of time, in building a transparent, accountable and clean government. And four systems have been introduced, which involve all the three aspects. But the construction of the Sunshine Government is a huge system of government work, which also needs to go with the basic systems of the government, as well as learn from foreign experiences, and other regional experiences related to the system, to ensure the sustainability of the construction of the Sunshine Government of Macau. We have preliminarily designed a suitable system of notification of significant events in Macau and the hearing system of the flow chart of major issues for reference. Finally, some suggestions have been put forward in constructing Sunshine Government in Macau, according to the current situation in the three aspects, to promote the government in Macau to be overflowed with sunshine.

Keywords:

Sunshine Government, Basic system, Transparence, Probity

12.澳門居民的收入滿足度和生活幸福度的相關性研究

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畢業年度:

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論文摘要：

澳門賭權於 2002 年開放給外資投資後，大型項目不斷相繼落成，經濟的急速發展使居民的收入不斷上升，居民的生活條件亦愈來愈完善，但這又是否代表澳門居民是幸福了?居民收入的上升又是否能代表他們會變得幸福?本文旨在探討澳門居民的收入滿足度及與生活幸福度之間的關係，並在此基礎上進行分析影響收入滿足度的各種因素及其相關因素。研究的目的如下：

1. 了解澳門居民的收入滿足度狀況。
2. 了解澳門居民的生活幸福度狀況。
3. 探討澳門居民的收入與生活幸福度之關係
4. 探討影響收入滿足度的各種因素與幸福度之關係，並找出當中的因素。

本研究以問卷進行調查，有關生活幸福度的調查部分，採用 Australia Centre on Quality of life 的 Personal Wellbeing Index (PWI) 作爲測量工具。收入滿足度的計算方法就採取傅紅春教授的收入滿足度公式來計算澳門居民的收入滿足度，再自行編制問卷以調查澳門居民在收入層面、工作層面、經濟層面的意見。本研究一共發出 204 份問卷，有效問卷爲 171 份，並利用數據作統計分析。最後根據分析結果作出政策建議。

本研究有以下發現：

1. 澳門居民的實際收入與生活幸福度沒有明顯的相關性。
2. 澳門居民的收入滿足度與生活幸福度有正的相關性

在中介變項分析中，「收入帶來的生活改善」、「工作滿意度」與「就業滿意度」爲收入滿足度與生活幸福度之間的完全中介變項。「政府對工作的保障」和「市民應付通脹的能力」爲收入滿足度與生活幸福度之間的部分中介變項。

關鍵詞：

收入滿足度、生活幸福度、實際收入、中介變項

12.Research on the Relationship between Income satisfaction Degree and Well-being in Macao people

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Name of the supervisor:

Assistant Professor Ma, Ru Fei

Graduated Year:

2011

Type of Degree:

Master of Public Administration

Abstract:

After the gambling right was opened on 2002, a lot of conspicuous projects have been built one after the other. The economy was developing rapidly so that the salary of the Macao residents could increase gradually. The living conditions of residents were become perfectly. However, Was the well-being of Macao residents well? Can the level of increasing salary represent the level of well-being? The propose of this study was to find out the relationship between the income satisfaction degree and well-being of Macao people. The targets of this study are:

1. To find out the income satisfaction degree of Macao people.
2. To find out the well-being of Macao people.
3. To probe the relationship between the income and well-being of Macao people.
4. To probe the relationship between the income satisfaction degree and well-being of Macao people, then to find out the mediators between the income satisfaction degree and well-being.

The data was collected by questionnaires. Australia Centre on Quality of life Personal Wellbeing Index (PWI) has been used to collect the data of well-being.

The formula of the income satisfaction degree, which was raised by Fu, Hong Chun, was used to count the income satisfaction degree of Macao people. The information of income, working and economics were collected by the questionnaire which was designed by me. 204 questionnaires have been sent and 171 questionnaires were valid. The data was analyzed by SPSS. According the result, here are the suggestions:

1. There is not any obvious relationship between the income and well-being.
2. There is a positive relationship between the income satisfaction degree and well-being.

“The improvement of life”,“The satisfaction of working”and“The satisfaction of employment”were the entire mediators between the income satisfaction degree and well-being.“Job security by government”and “The ability of Macao people of dealing with the inflation”were the partial mediators between the income satisfaction degree and well-being.

Keywords:

Income satisfaction degree, Well-being, Income, Mediator

13.社區服務諮詢委員會與澳門地方行政

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論文摘要：

「澳門市政廳」和「海島市政廳」兩個市政廳作爲「地方政府」，它們可通過選舉產生自己的領導機構，具諮詢及決策功能，可自行制定市政管理的規章制度。在制定澳門《基本法》時，《基本法》中訂明澳門特別行政區將設立非政權性的市政管理部門。故此，澳門回歸時根據《基本法》的要求，取消了兩個市政機構其政權性質，改稱爲「臨時市政廳」，同時特區立法會通過了《回歸法》，規定兩個臨時市政機構行使其職能至 2001 年 12 月 31 日。因此，在 2002 年 1 月 1 日特區成立民政總署以取代「澳門市政廳」和「海島市政廳」兩個市政機構。民政總署屬公法人性質，是一個間接的公共行政機構，接受行政長官或行政長官授權主要官員的監督，屬非政權機構。在過往的政府諮詢組織中，由於體制老化，功能不彰，未能充分發揮上傳下達的效果，這反映了在眾多社會組織的意見和訴求上，缺乏足夠的涵蓋性。故此，於《澳門特別行政區二零零七年財政年度施政報告》在行政法務範疇提出在社會諮詢制度須要作出全面的改革，對現有諮詢組織進行規模重整和功能重整，消除形式化的安排，強調實際效果的發揮。於 2008 年 10 月，澳門特區政府設立三個全委任的社區服務諮詢委員會，以落實及推動增加政席與社區的直接聯繫，從而加強地方的諮詢網絡，通過社諮會召開會議等與民間組織有效的溝通，結合更有效率的跨部門協作，直接解決市民各種不同訴求。隨著社諮會的有效執行，體現了特區政府在地方行政改革上「從地方政府到地方治理」的制度轉變過程，反映澳門特區政府在地區施政上有了地方治理的雛型，實踐了澳門特區政府地方行政走向地方治理。

關鍵詞：

社區服務諮詢委員會、地方行政、治理

13.The Advisory Bodies on Community Services and Local Administration in Macau

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Guest Assistant Professor WONG, CHAM LI

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2011

Type of Degree:

Master of Public Administration

Abstract:

As "local government", the "Municipal Council of Macao" and "Island Municipal Council" which have advisory and policy-making functions, were formed by election. The two bodies can pass regulations regarding municipal management affairs. The Basic Law has provided for that the Macao SAR Government can establish municipal management organs of non-governmental nature. In accordance with this requirement, the two municipal councils were abolished after the handover. After that, two provisional municipal councils were formed instead, which however will stop function on 31 December, 2001. Therefore, on 1st January, 2002, the Municipal Affairs Department was formed to replace these two provisional municipal councils. The Department is a public legal person and belongs to an indirect public administration body, which is under the supervision of the Chief Executive and is non-governmental in nature. The advisory bodies of Government in the past are out-dated and dysfunctional, which cannot communicate with people as they do not cover their opinion and demands. Because of that, in the Governor's Address of 2007, it was put forward that the structure and functions of the consultative system must be reformed, so as to make it more effective. With the establishment of three advisory bodies on community services in October, 2008 by the Municipal Affairs Department, the Government can directly liaise with the local communities, thereby strengthening its consultative networks. Moreover, through meetings of these advisory bodies and the coordination with inter-departmental organs, the demands of people can be resolved directly. With the development of the three advisory bodies on community services, "the move toward local governance from local government" is obvious in the local administration reform of Macau.

This reflects that the local governance structure of Macau SAR Government has started to take shape and put into practice.

Keywords:

Advisory Bodies on Community Services, Local Administration, Governance

14.澳門青年員工的個性特徵與心理依戀研究

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學位類別:

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論文摘要：

本文以在澳門博彩業、旅遊及酒店業的青年員工作爲主要研究對象，研究其人格特質中外債性和冒險性、心理依戀感知以及員工工作績效之間的關係。

本研究目的在於以員工的角度出發，探討外債性、冒險性對工作績效的影響；將心理依戀感知作爲中介變量衍生出模型，通過對員工與主管進行問卷調查，發放 300 份問卷，回收共計 288 份。利用 AMOS 進行資料分析，透過描述性統計、驗證性因數分析、相關分析及路徑分析，分析結果發現理論模型適配度尚稱理想。

本研究認爲，員工的外債性、冒險性可以通過心理依戀對工作績效產生影響，即當員工的外債性越強、冒險性越小時，員工的心理依戀感知越高時，表現出的工作績效也就越高。

關鍵詞：

外債性、冒險性、心理依戀、工作績效

14.A Study on extroversion, risk preferences, psychological attachmentand job performance of the young employees of Macau

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2011

Type of Degree:

Master of Management Studies

Abstract:

In this paper, our main object is the young who work in gambling industry. We discuss the relationship between the extroversion, risk preference, psychological attachment and the employees, job performance.

In this paper, we focus on the effect of extroversion and risk perference on the job performance. We develop a model that the psychological attachment works as a mediating variable. Our sample comprisefrom 288 leader-follower dyads within organizations throughout the Macau. Through descriptive statistics, confirmatory factor analysis, correlation analysis and path analysis, the results fit the model well.

We suggest that the psychological attachment mediated between extroversion, risk preferences and job performance. When employees have stronger extroversion, weak risk preferences and higher psychological attachment, they show the higher job performance.

Keywords:

Extroversion, Risk preferences, Psychological attachment, Job performance

15.我國煤炭上市公司財務風險預警研究

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管理學碩士課程

論文摘要：

煤炭曾是歐美各國工業化的動力基礎，它在世界能源系統中始終佔有重要的地位。中國是以煤爲主的能源結構，未来煤炭產業仍將是我國重要的基礎產業。我國煤炭行業經歷長期發展，擁有獨立的行業特徵和財務特性。近些年中國經濟發展速度快，直接帶動煤炭行業高速發展，煤炭企業紛紛組織上市。與此同時，眾多煤炭企業進行巨大的固定資產投資等經濟行爲，在國內財務風險管理發展不健全的情況下，產生多方面財務風險問題。因此迫切需要對其進行財務預警研究。

本文以中國滬深兩地市煤炭上市公司爲研究對象，選取了 30 個財務指標爲解釋變量。首先通過正態性檢驗和非參數差異性檢驗對 30 個財務指標進行初步降維，剔除其中 11 個沒有顯著性差異的解釋變量。接著，通過主成份分析和因子分析，選取其中的主成分因子並進行命名解釋。最後，運用 SPSS17 軟件和因子分析定義出的 6 個因子爲自變量，帶入 Logistic 模型進行回歸，預測危機發生前一年的準確率：正常的煤炭上市公司準確率爲 88.2%，財務危機企業的準確率爲 94.1%。

關鍵詞：

煤炭上市公司、財務預警模型、因子分析、財務風險

15.A Study on The Financial Early-Warning To Coal Mine Limited Companies

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2011

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Master of Management Studies

Abstract:

Coal used to be the driving force of industrialization in Europe and the United States. It has always been playing an important role in the world energy system. China's coal-dominated energy structure determines that coal will be the fundamental industry and the base of china's energy security during a long period of time. Experiencing a long-term development, China's coal industry has its own Independent industry and financial characteristics. Owing to the fast development of China's economy in recent years, coal industry comes into a golden period of development. More and more coal companies choose to list to expand their scale and improve corporate governance. At the same time, huge fixed assets investment becomes normal in these coal companies. However, a series of these actions result in many aspects of financial risks because of the unsound management of financial risks in China. A study on financial distress is necessary and urgent.

This article takes the coal companies listed in Shanghai and Shenzhen as the study sample. Thirty financial indicators are selected for study. First, by means of test of normality and nonparametric test statistics, eleven indicators with no significant differences are removed. Second, principal component analysis is used to reduce dimension further. Principal component factors are selected and naming explained. At last, six factors as independent variables are defined by means of SPSS17 and factor analysis. The six factors are regressed by logistic model. The warning model of coal industry based on the six factors has an accuracy of 88.2% to predict the financial crisis a year in advance. Meanwhile, it has an accuracy of 94.1% to correspond to the enterprises in financial crisis.

Keywords:

The coal companies, Financial early-warning, Factor analysis, Financial risk

16.珠三角區域經濟增長的影響因素——基於面板數據協整模型的實證分析

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指導老師姓名:

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畢業年度:

2011

學位類別:

管理學碩士課程

論文摘要：

珠三角地區是我國改革開放的先行區域，是我國重要的經濟中心，在全國經濟社會發展和改革開放大局中具有突出的帶動作用和舉足輕重的戰略地位。改革開放以來，珠三角地區銳意改革，率先開放，實現了經濟社會發展的歷史性跨越。當前，國內外經濟形勢發生深刻變化，珠三角地區正處在經濟結構轉型和發展方式轉變的關鍵時期，如何取得經濟的持續、良性增長已成爲珠三角地區亟待解決的問題。

區域經濟增長一直是國內外經濟學者研究的核心問題。在長期的研究過程中逐步形成了傳統區域經濟均衡與非均衡增長理論、新經濟增長理論、新經濟地理學理論三大理論體系。傳統經濟增長理論是以收益遞減規律爲前提的，認爲經濟增長只能依靠外生的技術變化；新增長理論突破了技術外在性的假設，特別強調知識和人力資本的決定性作用，提出了要素收益可以遞增的新觀點；新經濟地理學在邊際報酬遞增、不完全競爭的假設及地理空間維度的框架下進行經濟增長分析，提出了一些新的理論觀點和分析方法。

本文基於傳統經濟增長理論、新經濟增長理論、新經濟地理學理論的分析，以珠三角九個市域單位爲研究對象，建立非平穩面板數據，運用協整建模的理論和方法，對珠三角地區的外商直接投資、政府財政支出、產業結構、固定資產投資、出口、人力資本等因素與經濟增長的關係進行實證研究。結果表明，以上六大經濟要素與經濟增長之間存在長期協整關係；六大經濟要素與經濟增長之間具有短期、

長期均衡關係，且六大經濟要素對不同城市經濟增長的貢獻各不相同。

最後，提出了促進珠三角區域經濟持續協調發展的相關政策建議。

關鍵詞：

珠三角、區域經濟增長、面板數據、協整模型

16.The Factors Affecting Regional Economy of Pearl River Delta —— The Empirical Study Based on the Panel Data

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Faculty of Management and Administration

Name of the supervisor:

Associate Professor Liu Chengkun

Graduated Year:

2011

Type of Degree:

Master of Management Studies

Abstract:

As the pioneer of the reform and opening-up and an important economic hub of China, the Pearl River Delta has played a remarkable leading role and had an important strategic status in the overall effort of China to pursue economic and social development and carry on the reform and opening-up. Since the introduction of the reform and opening-up policy, the Pearl River Delta, through carrying out drastic reforms and taking a lead in opening up to the outside world, has achieved historic breakthroughs in economic and social development. At present, profound changes are taking place in the economic situations at home and abroad, and the Pearl River Delta is at the crucial point for transforming its economic structure and development pattern. How to get a sustained economic growth has become a problem to be solved in the Pearl River Delta.

The regional economic growth has always been the central part in the studies of the economist. The traditional Balanced and Unbalanced Regional Economic Development Theory, the new economic growth theory and the new economic geography theory have been formed after the long phase research. Traditional economic growth theory is based on the premise of the law of diminishing returns, economic growth can only rely on exogenous technological change.The new economic growth theory breakthroughs the hypothesis of technology externalities, and special emphasis on knowledge and the decisive role of human capital, proposed the new ideas of Elements of increasing returns.New economic geography analyses economic growth in marginal increasing returns, the hypothesis of imperfect competition and under the framework of geographical spatial dimensions, and put forward some new theories and analysis method.

This paper based upon the traditional economic growth theory, new economic growth theory and new economic geography theory, the Pearl River Delta as the research object, set up municipal panel data, using co-integration modeling theory and method, this paper makes the empirical study for the relationship between FDI, government expenditure, industrial structure, fixed asset investment, export, human capital and economic growth in the Pearl River Delta economy. The result shows that there is a long run co-integration relationship between the six economical essentials mentioned above and economic growth · The six economical essentials and economic growth have short-term and long-term

equilibrium relationship and the six economical essentials mentioned above are various to economic growth's contribution for different cities.

Finally, this paper proposes the related policy suggestion promoting the Pearl River Delta economy to develop continuously and harmoniously.

Keywords:

Pearl River Delta, Regional Economic growth, Panel Data, Co-integration Model

17.員工對公司社會責任的認知，滿意度與職場偏差——聲望爲中

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管理學碩士課程

論文摘要：

在當今經濟飛速發展的時代，獲取商業利益依然是企業的根本目標，但在如何更好的實現這一目標上，越來越多的企業瞭解到社會責任這一重要概念，一個擁有良好社會責任的公司往往更被民眾所接受，所喜愛，而能夠在這樣的公司裡工作也是更多求職者夢寐以求的。中國加入世界貿易組織後，企業的社會責任問題受到了國際和國內社會的普遍關注。把社會責任和企業文化結合起來，有利於促進企業的可持續發展。

公司要想可持續發展，更重要的是內部員工的各項行爲，當所有的員工都熱愛公司，對自己的工作充滿熱情，並且自覺減少對公司做出不利行爲，努力維護公司聲望，這樣的公司又怎麼可能不長久的發展呢。

本研究利用以往國內外相關研究的文獻作爲理論依據和研究構架假設的基礎，發出問卷 450 份，回收 390 份，扣除 27 份無效問卷，共計回收有效問卷 363 份，針對多個行業員工與主管問卷相配對，對大型企業的員工對社會責任的認知，工作滿意度和職場偏差以及企業聲望之間的關係進行了驗證分析，最後得到以下四個結果：

1、員工對公司社會責任的認知與企業的聲望有正向的影響；

2、員工對公司社會責任的認知與工作滿意度有正向的影響；

3、企業的聲望作爲中介變量影響著員工對公司社會責任的認知和滿意度；

4、工作滿意度與職場偏差行爲有負向的影響。

關鍵詞：

企業社會責任、員工對公司社會責任的認知、工作滿意度、職場偏差行爲、企業聲望

17.Employees' Perception of Corporate Social Responsibility, Satisfaction and Deviant Workplace Behavior -- Mediating Role of Reputation

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Associate professor Tian Qing

Graduated Year:

2011

Type of Degree:

Master of Management Studies

Abstract:

In the era of the rapid development of current economy, the enterprises' fundamental goal is to gain commercial interests, however, more and more enterprises realize the importance of social responsibility in how to achieve the goal better. A company which has good social responsibility tends to be more accepted by people and more popular among them, and working in such company is also what more job seekers dream of. After China's accession to the World Trade Organization, The social responsibility of the enterprises has gained international and domestic social universal attention. Combining social responsibilities with the enterprise culture promotes the sustainable development of enterprises.

If the company wants sustainable development, the more important thing is the internal employees' behavior. When all the employees love the company, they have full of enthusiasm for their work, reduce an unfavorable self-consciously behavior for the company and strive to safeguard enterprise prestige, how could such company not continue sustainable development?

This research is based on previous studies of literature at home and abroad as theoretical basis and research frame hypothesis. 450 questionnaires were sent out, 390 questionnaires were retrieved, 27 invalid questionnaires were deducted and 284 available questionnaires were retrieved. The relationship between large enterprises employees' perception of social responsibility, their satisfaction and workplace deviation and the enterprise reputation has been validated analysis for multiple industries' employees' and executives' questionnaires, and we finally get the following four results:

1. Employees' perception of corporate social responsibility has positive effects on enterprise prestige.
2. Employees' perception of corporate social responsibility has positive effects on job satisfaction.
3. Enterprise reputation as a mediation affects employees' perception of corporate social responsibility and satisfaction.
4. Job satisfaction has negative effects on the workplace deviation.

Keywords:

Corporate social responsibility, Employees' perception of corporate social responsibility, Job satisfaction, Behavior of workplace deviation, Enterprise reputation

18.地方門戶網站吸引力影響因素之研究

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管理學碩士課程

論文摘要：

隨著網路的普及，人們通過網路來瞭解世界，獲取資訊也越來越變得簡單、快捷，門戶網站更提供了便利的條件。早期建立的門戶網站（如新浪、搜狐等）已在全國範圍內站穩腳跟，不斷發展的論壇、社區也逐漸演變成門戶網站，數以萬計的網站競爭相當激烈。近年來，不少網站逐漸把突破口轉向了地方，作爲門戶網站的新發展方向，建立地方門戶網站。此類網站具有地方使用者針對性強、資訊更新速度快的特點，發展本地資訊、網路購物、戶外活動等內容。具有代表性的地方門戶社區網站有杭州 19 樓、常州的化龍巷、廈門的小魚社區、成都的吃喝玩樂網等。本研究借著通過問卷調查瞭解線民的基本資訊狀況，並對線民流覽網站的影響因素做出一個初步的研究，瞭解線民在流覽網站時的需求以及最熱衷的服務專案，爲更多的網站建立者在發展方向上提供參考依據。

本研究在詳細整理國內外相關文獻後，提出本文的研究模型與假設。並設計和收集了 302 份有效問卷。經過本研究的分析主要分爲三個部分：第一部份針對內地線民受測樣本進行描述性統計分析；第二部份研究網站吸引力影響因素在個體特徵維度上的差異；第三部份研究各維度對地方門戶社區網站吸引力影響的顯著性。研究過程中分別採用因素分析、獨立樣本 t 檢驗、單因素方差分析、相關分析、回歸分析的統計方法，統計軟體則應用 SPSS17.0。

本研究的主要結論有以下幾個方面：（一）通過文獻歸納和因素分析得出五大維度，分別是網站互動性、網站內容結構、網路廣告、網站舉行的戶外活動、網路購物。（二）通過獨立樣本 t 核對總和單因素方差分析，檢定各影響因素在線民個體特徵維度上的差別，結果表明各影響因素除了在性別上無顯著差別，在年齡、教育程度、工作狀況、每月工資收入狀況、接觸網絡時長各有顯著差別，具體見文中的研究分析和研究結論。（三）應用 SPSS 回歸分析來檢定研究假設，得出網站互動性、網站內容結構、網站舉行的戶外活動、網路購物，對地方門戶社區網站吸引力有顯著影響；而網路廣告對其無顯著影響。

最後，本研究通過分析和結論，以此對地方門戶網站的創建者提出具體建議，同時本研究指出了研究的局限性和後續的研究方向。

關鍵詞：

地方門戶網、互動性、戶外活動、網路購物

18.Research on the influencing factor of the attraction of local portal site

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Faculty of Management and Administration

Name of the supervisor:

Associate Professor Chen Hsing-hung

Graduated Year:

2011

Type of Degree:

Master of Management Studies

Abstract:

With the popularity of Internet, people know more about the world when it becomes much convenient to get various of information and portal site provides such kind of convenience. In recent years, a number of sites gradually turn to local as new developing direction of portal sites and create local portal web sites with the advantage of higher update frequency and pertinency in local users, which enables local information, Internet shopping, outdoor activities and so on. This research will be conducted using an questionnaire to find out the basic information of the netizens and have a slight touch on the factors that will affect netizens' interest in various web sites, to understand netizens' demand as well as the popular services and provide valuable references for more site creators to find their developing direction.

Study model and hypothesis will come out after the arrangement of domestic and international referrence correlated with the thesis, including 302 available questionnaires. There are three sections in the main analysis part: first, descriptive statistics analysis of samples of the netizens in mainland; Second, differences in dimension of the factors that will affect netizens' interests in web sites; Third, a research on the significance of the dimensions' influence on the attraction of local portal sites. The conclusion of the research comes as follows: 1. Five dimensions are learnt after factor analysis and summaries of related literatures. 2. The analysis of the differences of netizens' personalities in dimension through independent T test and one-way analysis. 3. When using SPSS to make regression analysis.

Finally, the analysis and conclusion of the thesis will provide specific suggestions to site creators of local portal sites, as well as introduce the limitations of the present study and directions for continuing research.

Keywords:

Local Portal Site, Interactivity, Outdoor Activity, Internet Shopping

19.挑戰性工作要求與員工創造力：內在機制分析

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學位類別:

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論文摘要：

本研究旨以員工的角度出發，探討基於挑戰性工作要求對員工創造力之影響，並將重心放在內在動機作爲中介變量和主管支持作爲調節變量效果所衍生的模型。

本研究面對中國內地和澳門的金融業、服務業以及製造業等行業對 164 名主管及其 164 名直屬下屬的配對問卷調查資料進行相關回歸分析。結果顯示：挑戰性工作要求可通過內在動機對對創造力產生影響與作用，主管支援對挑戰性工作要求與創造力間的關係起調節作用，即主管支援越強，則挑戰性工作要求對創造力的作用越大。

關鍵詞：

挑戰性工作要求、內在動機、主管支援、創造力

19.Challenge job demand and Creativity：Internal mechanism analysis

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Associate Professor Sun Li-Yun

Graduated Year:

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Type of Degree:

Master of Management Studies

Abstract:

This study is to examine the mechanism through which challenge job demand affects employee creativity.

Data were obtained from 164 leader-follower dyads in firms of China and Macao. Results of the study showed that intrinsic motivation fully mediated the relationship between challenge job demand and employee creativity, and supervisory support moderated the relationship between challenge job demand and employee creativity such that their relationship was stronger in the case of lower supervisory support.

Keywords:

Challenge job demand, Intrinsic work action, Supervisory support, Creativity

20.中國網絡遊戲玩家滿意度與忠誠度影響因素研究

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論文摘要：

世界三大娛樂產業之一的網絡遊戲它獨特的體驗性、交互性以及社區性，吸引了大批的玩家，豐富了人們的娛樂和體驗方式。目前，中國網絡遊戲市場仍保持高速增長的勢態，市場的高速發展，吸引了大量的競爭者進入。面對競爭，如何提高顧客滿意度，保持顧客忠誠度已經成爲網絡遊戲運營商最關心的問題。

本研究以中國網絡遊戲爲研究對象，採用定量的研究方法。研究以顧客滿意度、顧客忠誠度理論基礎，建立出本研究的衡量量表，然後運用 SPSS17.0 統計分析軟體進行分析，結合人口統計分析，從網絡遊戲的產品品質，服務質量，關係信任和玩家因素四個層面，來探討影響玩家滿意度的因素，並對各因素影響玩家滿意度的程度進行分析，最後對轉換障礙和滿意度與忠誠度之間的關係進行探討，並爲後續的研究提出一些建議。

本研究得到以下結論：

1.網絡遊戲的產品品質、關係信任和玩家因素與玩家滿意度正相關，且產品品質的影響最爲顯著。

2.玩家滿意度與玩家忠誠度正相關。

3.轉換障礙對玩家滿意度與玩家忠誠度有調節作用，當轉換障礙增大，玩家滿意度與玩家忠誠度的影響增強。

關鍵詞：

網絡遊戲、中國網絡遊戲玩家、顧客滿意度、顧客忠誠度

20.Influence factors research on China's online gamers satisfaction and loyalty

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Assistant Professor WU SHIANG HAU

Graduated Year:

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Type of Degree:

Master of Management Studies

Abstract:

One of the world's top three entertainment industry, the online game, its unique experiential, interactive and community, attracted a large number of players, and enriching people's way of entertainment and experience. At present, China's online game market is still maintain rapid growth. The fast developed market absorb a large quantity of competitions come into it Faced the competition, how to keep the customer, and enhance their satisfaction and loyalty by online game operator has become the most concern.

This study is focused on China's online game, using the quantitative research methods, which is on the basis of customer satisfaction and loyalty theory, to build the measurement, then analyzes the questionnaire data through SPSS17.0, also combined with demographic analysis discuss the player satisfaction influencing factors from product quality, service quality, trust and player relationship four aspects. And analyze the factor's affection and relationship with satisfaction. Finally we discuss the relationship between switching barriers, satisfaction and loyalty, and raised some suggests to later research.

The results of this study are as follows:

1. Online game's product quality, trust and player relationship are positively related to player satisfaction, and the product quality of the most significant.

2. Player satisfaction is significantly positive related to player loyalty.

3. Switching Barriers moderates the relationship between player satisfaction and player loyalty such that the relationship will be stronger under organic versus mechanistic structure.

Keywords:

Online game, China's player, Satisfaction, Loyalty, Influencing factor

21.道德認知對商業道德決策的影響——權利距離爲中介作用

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論文摘要：

在當今社會，企業的決策是否有道德性已經成爲衡量一個企業是否成功的關鍵因素之一。決策的主體是人。在企業中，企業決策者就是管理者，企業決策是否具有道德性也取決於其管理者的道德性。在中國內地企業中，影響道德決心的因素來自不同方面，面本文關注的重點是企業管理者在進行道德決策時是否受到其道德認知和權力距離的影響，以及通過怎樣的方式影響道德決策。

本文通過對中國內地的企業管理者進行的實證研究，對本文論題進行了論證。經過分析獲得了本研究的結果：

1. 企業管理者的道德認知影響企業決策的道德性；
2. 管理者的權力距離影響企業決策的道德性。

關鍵詞：

道德認知、權力距離、商業道德決策

21. Impact of Perception of Ethical Issues on Ethical Decision Making--Power Distance as Mediator

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Name of the supervisor:

Assistant Professor Tian Qing

Graduated Year:

2011

Type of Degree:

Master of Management Studies

Abstract:

Nowadays, whether the decision of the company is moral has become one of the key factors to measure the success of an enterprise. The subject of a decision-marking is human being. In the corporation, Manager is the business decision markers, the morality of the company decision-marking also depends on the morality of their managers. Enterprises in China, lots of factors influence the ethical decision-marking.

Based on the business managers in mainland China, this paper use the demonstration method to reason the issues. Two results are achieved by the analysis, the results are as follow :

1. The moral perception of managers have influence on the morality of decision-marking;
2. The power distance of managers have effect on the morality of decision-marking.

Keywords:

Moral perception, Power distance, Moral decision

22.家長式領導、信任、領導效能與創新行爲

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畢業年度:

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學位類別:

管理學碩士課程

論文摘要：

近年來，中國經濟突飛猛進發展，在世界範圍內華人的企業也發展良好，華人家族企業的管理方式與哲學，受到許多學者的關注。他們將華人家族企業高層領導者的風格稱爲家長式領導（paternalistic leadership），所以研究家長式領導對我國的企業發展具有較大意義。本文研究了信任、領導效能與創新行爲與家長式領導的關係。研究的目的是爲了找出家長式領導（仁慈）是否會影響這三個因素（信任、領導效能、創新行爲）以及這些變量之間的關係。

本研究利用以往國內外相關研究的文獻和資料作爲理論依據和研究架構假設的基礎，在問卷上分成員工問卷與主管問卷，共計發出 500 份問卷，通過對回收的 302 份針對多個不同類型企業的有效的員工問卷和主管問卷，對中國的企業中家長式領導、對領導的信任、領導效能及員工創新行爲之間的關係進行了驗證分析，最後的結論爲仁慈領導會影響對領導的信任、領導效能及員工的創新行爲，同時研究發現領導效能在仁慈領導與員工創新行爲之間存在部分中介作用，對領導的信任在仁慈領導與領導效能之間存在部分中介作用。

關鍵詞：

家長式領導、權力距離、組織公平、團隊凝聚力

22.A Study on Paternalistic Leadership, Trust , Leadership Effectiveness and Innovation Behavior

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Faculty of Management and Administration

Name of the supervisor:

Associate Professor Tian Qing

Graduated Year:

2011

Type of Degree:

Master of Management Studies

Abstract:

From now on, Economic of China developed very fast, and the Chinese companies also developed very well around the world. More and more researchers pay attention to the management style and philosophy of Chinese family firm, they called this style of Chinese top level manager's as paternalistic leadership. So the research of paternalistic leadership is useful for the development of Chinese companies. Our study discuss the relationship between paternalistic leadership, trust, leadership effectiveness and innovation behavior. The purpose of our study is to find out whether the paternalistic leadership will affect this three variables and the relationship between each other.

In this study, we use relevant research literature and questionnaire which from all over the world as the basis of theoretical foundation, and the questionnaires are divided into employee questionnaire and manager questionnaire. The main sampling method application of this study is the convenience sampling which includes 500 questionnaires and then 302 valid questionnaires are thus collected. And we analyzed the relationship between paternalistic leadership, trust, leadership effectiveness and innovation behavior in Chinese companies.

At last we get the conclusion, there exists significant effect among the kindness latitude of paternalistic leadership and trust, leadership effectiveness and innovation behavior. And we also find out the mediating effect of leadership effectiveness existed between kindness latitude of paternalistic leadership and innovation behavior, the mediating effect of trust existed between kindness latitude of paternalistic leadership and leadership effectiveness, and this conclusion is useful and meaningful for the company development and future researches.

Keywords:

Paternalistic Leadership, Kindness Leadership, Trust, Trust in Leaders, Leadership Effectiveness, Innovation Behavior

23.博彩娛樂場客戶價值的測評與優化研究 -- 以澳門威尼斯人爲例

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論文摘要：

在博彩行業裏以市場爲導向、以優異的服務及多元化的娛樂設施來吸引顧客在澳門這一行業成了主流趨勢。顧客終身價值對企業的長遠發展是不可或缺的重要因素，只有擁有忠誠而又價值大的顧客，才能爲企業帶來龐大的經濟效益。

本研究以澳門威尼斯人酒店這一具有代表性的娛樂場爲例探討澳門博彩業顧客忠誠度、顧客推薦以及會員制營銷與顧客終身價值的相互關係，旨在揭示顧客忠誠對顧客終身價值影響的內在機理，以及優化和提高顧客終身價值的途徑。在研究中以顧客忠誠度作爲自變量，顧客終身價值作爲因變量、以顧客推薦意向作爲中間變量及以顧客對會員制營銷的態度作爲調節變量，探索性地研究各個變量對顧客終身價值的影響。

爲研究上述問題，本研究以澳門威尼斯人酒店的消費者爲研究對象進行問卷調查，並針對 210 份有效樣本進行了定量的數據統計分析，證實了顧客忠誠度通過影響顧客推薦意向並最終影響顧客終身值，而會員制營銷會調節顧客忠誠度對顧客終身價值的作用。論文主要發現如下：

1、顧客忠誠度與顧客終身價值顯著正相關。

2、顧客推薦意向作爲顧客忠誠度與顧客終身價值之間的中介變量，顧客忠誠度越高，顧客推薦越高，顧客終身價值也越高；反之亦然。

3、會員制營銷策略對顧客忠誠度與顧客終身價值起正向調節作用。當顧客對會員制行銷策略接受程度越高，顧客忠誠度與顧客終身價值的關係越顯著；接受程度越低，顧客忠誠度與顧客終身價值之間相關性越低。

關鍵詞：

博彩娛樂場、顧客終身價值、顧客忠誠度、顧客推薦意向、會員制營銷

23.Study on Evaluation and Optimization of Customer Life-time Value -- Take the Venetian Macau-Resort-Hotel as example

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Faculty of Management and Administration

Name of the supervisor:

Assistant Professor Shi Yong Dong

Graduated Year:

2011

Type of Degree:

Master of Management Studies

Abstract:

Gaming industry has played a significant role in Macau's economy and become a trend for the casinos in this industry to attract customers by market orientation, excellent service and diversified facilities. Customer life-time value is an essential factor for the sustainable development of the company. The loyal and high-value customers will create huge economic benefits for the casino.

This thesis took Venetian Macau, a representative casino in Macau, as example to study customer life-time value, one of the most significant subjects in this industry, by analyzing the mutual effect among customer loyalty, customer recommendation intention, membership strategy and customer life-time value. In this research, we defined customer loyalty as the independent variable, customer life-time value as the dependent variable, customer recommendation intention as the mediation variable, customers` acceptance of membership strategy as the moderation variable, so that we could investigate the influence of each variable on customer life-time value.

In order to obtain some useful data for this research, we have carried out a survey aimed at the customers of Venetian Macau, and we've got 210 effective samples. After running the quantitative analysis over the data, we proved the hypothesis proposed in the theoretical deduction part, and basically demonstrated that customer loyalty could influence customer life-time value via affecting customer recommendation intention, which would also be moderated by the impact of membership marketing.

Main Conclusions:

1. Customer loyalty will be positively related to customer life-time value.

2. Customer recommendation intention mediates the positive relationship between customer loyalty and customer life-time value.

3. Customers' acceptance of membership strategy moderates the customer loyalty and customer life-time value.

Keywords:

Casino, Customer life-time value, Customer loyalty Customer recommendation intention, Membership strategy

24.利益相關者的壓力與企業社會責任實施的相關性研究

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管理學碩士課程

論文摘要：

近幾年，中國經濟飛速增長，而在經濟增長的同時，國人卻遇到很多經濟學原理以外的倫理問題。各行各業在追逐利潤的同時，問題產品、環境污染、不正當競爭不斷出現在大衆的關注視野。如何解決這些問題，很多學者引進了西方學術界的企業社會責任概念。中國企業社會責任的意識薄弱，究竟如何才能推動企業社會責任在中國的實施，成爲了本文的研究問題。政府、顧客、員工、股東、小區、競爭者、媒體，這些利益相關者的利益訴求所形成的利益相關者壓力，是否能影響企業社會責任是實施，是本文的研究重點。利益相關者壓力影響企業社會實施的過程中，企業的道德環境、倫理型領導方式能否對倆者的關係起到作用，如何作用，這是本文研究的另一重點。通過對相關文獻的研究，本文探索利益相關者壓力、道德環境、倫理型領導如何影響企業社會責任的實施。

關鍵詞：

企業社會責任的實施、利益相關者壓力、道德環境、倫理型領導

24.A Study on the Relationship between Stakeholders' Pressure and Corporate Social Responsibility Practice

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Associate professor Qing Ting

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Master of Management Studies

Abstract:

In recent years, Chinese economy grow fast.With the economic growth, many ethical issues which can't explained by the economical principles occurred. Peaple are chasing profits,and meanwhile inferior quality products, environmental pollution, unfair competition continuously appeared in public. How to solve these problems, some scholars introduced the western theory of corporate social responsibility. The consciousness of corporate social responsibility hasn't developed very well in China, how to promote the corporate social responsibility practice, became the problem of this research. The government, customers, employees, shareholders, community, competitors, and the media, who give the company pressure, can the stakeholders' pressure influence the corporate social responsibility practice, is the research point of this paper. Stakeholders' pressure influence corporate social responsibility practice, how the ethical climate and ethical leadership enhance or reduce the relationship between them is another key point of this research. Through the study of literature, this paper explores how stakeholder pressure, ethical climate, ethical leadership affect the practice of corporate social responsibility.

Keywords:

Corporate Social Responsibility, Stakeholder's Pressure, Ethical Climate, Ethical Leadership

25.組織的家庭政策，與員工績效：結構方程模型分析

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學位類別:

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論文摘要：

本論文研究了組織的家庭政策對員工任務績效與員工創造性的影響機制。在廣東和江蘇地區的四大國有銀行收集了共 298 份問卷，問卷採用員工與其直接主管作對偶式的方式來填寫。結果顯示職業滿意度在組織的家庭政策和員工任務績效的關係中起到部分中介的作用；職業滿意度在組織的家庭政策和員工創造性中起到完全中介的作用。

關鍵詞：

組織的家庭政策、職業滿意度、任務績效、創造性

25.Organizational Family-Support, And Employee Task Performance: The Structural Equation Modeling

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Name of the supervisor:

Associate Professor Sun Li-Yun

Graduated Year:

2011

Type of Degree:

Master of Management Studies

Abstract:

We examined the mechanism through organizational family-support influences employee task performance and employee creativity in the study. We collected 298 Questionnaires in supervisor-subordinate dyads-approach from four banks in Guangdong and Jiangsu. Results showed that career satisfaction partially mediated the relationship between organizational family-support and employee task performance; career satisfaction fully mediated the relationship between organizational family-support and employee creativity.

Keywords:

Organizational Family-support, Career Satisfaction, Task Performance, Creativity

26.工作投入在工作意義和工作績效反饋與員工創造力關係中的中介作用

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學位類別:

管理學碩士課程

論文摘要：

本論文研究工作意義和工作反饋分別對員工創造力的影響機制。使用相關性和結構方程式模型統計方法，以 162 名主管及其相應配對的 162 名直接下屬爲樣本進行問卷調查。結果顯示：(1)工作意義和工作绩效反饋分別都與工作投入正相關；（2）工作意義和工作绩效反饋分別都與員工創造力正相關；（3）工作投入在工作意義和員工創造力之間起中介作用，同時，工作意義在工作績效反饋與員工創造力之間也起中介作用。

關鍵詞：

工作意義、工作绩效反饋、工作投入、員工創造力

26.The Mediation Effect of Work Engagement on the Relationship between Job Meaningfulness and Job Performance Feedback and Employee Creativity

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Associate Professor Sun Li-Yun

Graduated Year:

2011

Type of Degree:

Master of Management Studies

Abstract:

This study researches the mechanism between the meaning of work,the feedback of work and their influence on employees' creativity. We use relevant and structural equation model statistical methods. My sample comprised 162 supervisors and corresponding matched 162 subordinates.

The results indicated:（1）both the job meaningfulness and the job performance feedback are positive correlative with the work engagement；（2）both the job meaningfulness and the job performance feedback are positive correlative with the employee creativity;（3）the mediation effect of work engagement on the relationship between job meaningfulness and employee creativity, meanwhile, the mediation effect of work engagement also on the relationship between job performance feedback and employee creativity

Keywords:

Job Meaningfulness, Job Performance Feedback, Work Engagement, Employees creativity

27.家長式領導、權力距離、組織公平與團隊凝聚力

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學位類別:

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論文摘要：

隨著中國的發展，越來越多的研究者認識到中國文化的獨特性，如若將西方文化中發展出的領導理論生搬硬套到中國的企業中是不合適的。於是，國內外學者對家長式領導——中國傳統社會文化特征的產物越來越重視。目前對家長式領導的研究以理論研究居多，實證研究相對較少。

在過去的幾十年裏，對團隊的研究越來越受到更多人的關注，並且也取得了豐碩的成果。在以往的研究中，指出了影響團隊凝聚力的一些主要因素，但是對於影響團隊凝聚力影響因素的研究還未完善，對影響機制還沒有足夠的實證研究，特別是關於家長式領導這種領導風格對團隊凝聚力的影響研究並不多見。所以，本文通過實證分析的方法來探究家長式領導對團隊凝聚力的影響，並探討了權力距離與組織公平在其中的作用。

本研究在對國內外相關文獻回顧的基礎上提出理論假設，使用問卷調查法，以中國北京、上海、四川等多個省市國內企事業單位的員工爲研究對象，共發放問卷 500 份，最終得到有效問卷 302 份；使用 SPSS17.0 軟件對數據進行分析，檢驗假設；最後對實證研究的結果進行了綜合討論。研究主要得出以下結論：

1. 仁慈領導與團隊凝聚力之間存在正向的顯著影響；
2. 權威領導與團隊凝聚力之間存在負向的顯著影響；
3. 組織公平在家長式領導與團隊凝聚力之間起中介作用；
4. 權力距離在權威領導與組織公平之間起調節作用。

最後，對本研究的結論作了探討，指出本次研究的一些局限以及對未來研究的一些設想。

關鍵詞：

家長式領導、權力距離、組織公平、團隊凝聚力

27.A Study on Paternalistic Leadership, Power Distance, Organizational Justice and Team Cohesiveness

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Type of Degree:

Master of Management Studies

Abstract:

Along with the development of China, more and more researchers have realized the specifically of Chinese culture. It is unsuitable to use the western leadership theory on Chinese organization. For this reason, the researchers from China and abroad become research the paternalistic leadership (PL). PL is a leadership theory, and based on Chinese traditional culture. At present, most of the studies about PL is on the theoretical level, the empirical study is not enough.

In the past few decades, more and more people researched the team, and achieved fruitful results. In previous studies, the researcher have funded the main factors which influence team cohesiveness, but the empirical studies of influence mechanism is not enough. Particularly, there is little study between PL and team cohesiveness. Therefore, this paper through the empirical study to explore the relationship between PL and team cohesiveness, it also explore the effect about power distance and organizational justice in that relationship.

In this study, I used relevant research literature and questionnaire which from all over the world as the basis of theoretical foundation. I send the questionnaires to the employee from Beijing, Shanghai, Sichuan and other different provinces. The main sampling method application of this study is the convenience sampling which includes 500 questionnaires and then 302 valid questionnaires are thus collected. The data analyzed by SPSS 16.0, test and verify hypothesis. Then I discuss the results of empirical research and get the conclusion:

(1). There exists significant effect among the kindness latitude of paternalistic leadership and team cohesiveness.

(2). There exists significant effect among the authoritative latitude of paternalistic leadership and team cohesiveness.

(3). The mediating effect of organizational justice existed between paternalistic leadership and team cohesiveness.

(4). The moderating effect of power distance existed between the Authoritative latitude of paternalistic leadership and team cohesiveness.

At last, this paper discusses about the analyzed results and point out the limitations and future

research directions.

Keywords:

Paternalistic leadership, Power distance, Organizational justice, Team cohesiveness

28.澳門銀行業效率及影響因素研究

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學位類別:

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論文摘要：

本文應用數據包絡分析法研究了澳門 18 家樣本銀行 2005 到 2009 年的技術效率、純技術效率和規模效率，分別從橫截面與縱截面分析其效率值。同時，本文測算了反映銀行業生產率動態變化的 Malmquist 全要素生產率指數，進而將其分解爲技術變動和技術效率變動，探討生產率的變化情況及來源。在此基礎上構建了影響澳門商業銀行全要素生產率的宏微觀模型，檢驗了各影響因素對全要素生產率的影響方向和程度, 實證結果表明 GDP 增長率、貨幣供應量增長率、創新能力對商業銀行全要素生產率有顯著正向作用，自有資本比率和存貸比對商業銀行全要素生產率有顯著負向作用，進而提出了提高澳門商業銀行效率水準和競爭力的相關建議。

關鍵詞：

商業銀行、效率、DEA、Malmquist 全要素生產率指數、面板數據

28.The Determinant's Study of Efficiency of Macau's Commercial Banks

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Master of Management Studies

Abstract:

This paper provides an empirical analysis on the efficiency performance of 18 commercial banks in Macau during the period of 2005~2009 by using Date Envelopment Analysis (DEA) technique. Technical efficiency and its two subcomponents are evaluated from horizontal and vertical perspectives. Moreover, the Malmquist Total Factor Productivity Index is measured to illustrate productivity dynamics. This index can be further decomposed into technical change and technical efficiency change to identify the source of productivity change. And then microscopic and macroscopic model are used to test the determinant s of bank's TFP in Macau. The results show that GDP rate, M2 rate and innovation rate have remarkable positive influence on commercial banks' TFP. Equity asset rate and deposits rate have a remarkable negative influence on commercial banks' TFP. Then it puts forward several proposals to improve Macau's commercial banks' efficiency.

Keywords:

Commercial banks, Efficiency, DEA, Malmquist TFP Index, Panel data

29. 社會資本對組織公民行爲，對員工學習行爲，以及機構創新能力影響之研究——以澳門博彩業員工爲例

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論文摘要：

自二零零二年起，澳門博彩業開放後，六大博彩業營運機構正式進入競爭年代，賭彩收益以年激增，澳門現已轉型爲最新的『亞洲拉斯維加斯』娛樂城市。當面對娛樂場愈建愈大型，員工數目愈來愈多時，眾多現代化之管理理論應運而生，以投入由從前專營制度進化成現今的西式管理模式。此研究課題集中於社會資本、組織公民行爲、員工學習行爲、資源整合理論對於博彩機構創新能力的表現作何影響力。

爲此，選取澳門其中之一間大型博彩營運機構爲研究主體，此集團於短短幾年內由非博彩業經營者迅速地發展成澳門最大娛樂渡假中心，並業績彪炳。按賭業根深柢固的想法：『最主要的不是你所認識的，而主要於你所認識的人。』這句話，去集中研究博彩業員工的社會資本、組織公民行爲及學習理論，對於此機構的創新能力及表現有任何直接及間接之影響力。根據市場觀察所見，具高能力表現之博彩營運機構並非代表員工擁有高度和諧之工作環境，反之亦然，故欲從此研究結果可觀察到端倪。

此項研究運用結構方程模型去驗證各項假設，一手資料來源爲，於二零一一年六月份以收集此集團旗下四間娛樂場員工，來自各九個不同部門，共 306 份的有效問卷調查。

研究所得，博彩機構員工之間的社會資本、組織公民行爲及組織學習各項，對於此機構的創新能力及表現確具影響力，本文亦有提出相應之建議及解釋。

關鍵詞：

社會資本、組織學習、組織公民行爲、博彩業

29.Bonding Social Capital, Organizational Citizenship Behavior, Learning and Firm Performance——An Empirical Investigation on Macau Gaming Firm

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2011

Type of Degree:

Master

Abstract:

Macau has been transforming to the newest "Asian Las Vegas" gambling city after the monopoly of Sociedade de Turismo e Diversões de Macao (S.T.D.M) ended at 2002, the gaming gross income grows tremendously year by year since six gambling license holders started the new "casino war" now. It was also observed the change of people management from previous monopoly age to existing western-style management of employees, more and more modern managerial theories applied to the casino's management, following the size of the casinos built larger and larger, the number of employees grew bigger and bigger. The research interested in studying the organizational performance in a gaming firm by employing the concept of Social Capital, which theory was sparsely employed in this industry in the research, while social capital and organizational performance is respectably set as the independent and dependent variable, and other theories of organizational citizenship behaviors, organizational learning and resource combination/ combination are set as the mediator to clarify the cause and effect.

As a result, taking one of the biggest gaming companies who develops from non-gaming and Asian culture-oriented background and recently grows into one of the big gambling empires as the typical study target, the target gaming firm recently opened a new entertainment resort in Cotai strip in May 2011 and jumped to be second largest casino operators in the market share in Macau immediately, it aims to be competing with all other experience gaming corporate and Western style or so-called Las Vegas Style gaming operators. Based on the observation deeply into the behaviors of the employees in the gaming industrial companies, inside the casino world, it always said, "It's not what you know, but it's about who you know." Thus, based on the social theory– social capital and organizational citizenship behavior and organizational learning– are employed to investigate an individual's behaviors with coworkers within an organization, and the direct and indirect impact to the performance of the organization. Because it was observed that some of gaming organization created a harmony working environment for the employees, but not necessarily created a higher performance in the ranking in the gaming industry. On the other hand, some of gaming organization was obviously lack of trust or

information sharing culture, in the reverse, achieved much higher performance in the ranking in the gaming industry. These interesting observations were worth of deeply investigation on the relationship between the theories of Social Capital and Organizational Performance, through some of other variable theories, such as Organizational Citizenship Behaviors, Organizational Learning and Resource exchange/ combination theories in the hypotheses proposed. The study employs structural equation modeling method to examine the hypotheses. Collected data through a questionnaire design and analyses were based on data collected from 306 respondents participating in 9 departments across 4 casinos in the gaming organization. Therefore, there were 306 effective questionnaire received at June 2011.

After examination of the relationships among Social Capital and organizational Performance, and also the relationships between each of them with Resource Exchange, Organizational Learning, Organizational Citizenship Behavior respectively, to see if the social capital, organizational citizen behavior and organizational learning in a gaming corporate cause impact on Performance within the organization, most importantly, empirical results reveal a positive relationship between Social Capital and Organizational Performance, and some other interesting behaviors in this gaming industry:

At the end of the research, some suggestions and recommendation were given and for explaining the causal relationship in organizational behavior.

Keywords:

Social Capital, Learning, Organizational citizenship behavior, Gaming Industry

30.絕對無效合同制度探究#

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論文摘要：

合同法律關系在民法領域乃至整個私法領域都占有很大的比重。作爲一個社會人，其含有的社會性要求他與其他人交往，而這其中最多的便是合同法律關系，像買賣合同、贈與合同等，可以說合同法律關系將整個民法體系串聯了起來。合同的重要性不言而喻，國家對於合同法律關系的重視從立法上就可以看出，例如我國曾對“中外合資”與“中外合作”等涉外合同做出了專門的規制。無效合同在很大程度上影響了合同法律關系的穩定性，隨著社會關系與社會經濟的日益複雜，無效合同類型增多、情況更爲複雜，必須對其性質進行認定，從而保證民事交往中合同法律關系的順利進行。本文就是圍繞這一問題展開論述的。

本文正文分爲以下四部分：

第一章是關於大陸法系無效合同的概述。先說明了幾個主要的大陸法系國家在立法等方面，對無效合同制度作出的相關規定；再探討我國民法領域對於無效合同概念的爭議，以及不同學者的觀點，分析引入無效合同對目前中國的民法領域會產生的影響；最後通過對我國絕對無效合同現狀進行分析，提出確定絕對無效合同範圍有著重要意義。

第二章是關於絕對無效合同的判定問題。先列舉出判定絕對無效合同的價值標準，分析不同價值標準的意義，並說明我國使用的“正義”價值標準的意義；隨後對絕對無效合同判定標準進行分析；最後探討對絕對無效合同的處理。

第三章探討了絕對無效合同的法律後果。在對大陸法系主要國家絕對無效合同的結果，合同自始無約束力、返還財產、損害賠償進行分析的基礎上，對我國絕對無效合同的法律後果，返還財產、折價補償、賠償損失、追繳財產逐一進行評析。

第四章從案例入手，指出了目前司法實踐在絕對無效合同把握和定性方面存在的問題，針對絕對無效合同制度存在的不足提出了建議。

關鍵詞：

絕對無效合同、判定標準、法律後果、制度建議

30.Exploration the absolute invalid contract system

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Graduated Year:

2011

Type of Degree:

Master of Laws

Abstract:

The contractual legal relation possesses a lot of weight in fields of civil law and private law. The social characteristics of a person force him to contact with others during daily life and therefore such person is frequently involved in the contractual relation including purchase and sales contract, and donation contract. It is observed that contractual relationship clues up the whole civil law system. Importance of contract has gone without saying. We could see that every country is attaching importance to contractual relation by studying on the legislation of such country, for example, China made special regulations of contracts which were relating to foreign-related business including "Sino-foreign joint venture contract" and "Sino-foreign cooperation contract". Invalid contract influences the stability of contractual relation to a great extent. Along with the increasing complexity of social relationship and economy, the type of invalid contract is accordingly increasing, and the fact is becoming varied. So it is necessary to define the nature of invalid contract in order to assure contractual relation can go on wheels. This paper is based on the above argument.

This paper consists of four parts:

The first chapter is a summary the invalid contract in the civil law system. In the beginning of this chapter the legislation, by some of the main countries that follow the civil law system, on invalid contract systems are introduced. Then the concept of invalid contract in civil law is discussed pertaining to China. After that, the author analyses the impact on the field of civil law of China by introducing the invalid contract system. In the end, through analysis of the current situation of an absolute invalid contract in China, the author emphasizes the importance of defining the range of an absolute invalid contract.

The second chapter is about the determination of an absolute invalid contract. It concludes: the value criterion on the recognition of an absolute invalid contract, analyzes the different conceptions of different criteria, and explains the significance of "justice" as the value criterion of China, and then analyzes the criterion on the recognition of an absolute invalid contract. At last, the legal consequence of an absolute invalid contract is discussed.

In the third chapter, the author discusses the legal consequence of an absolute invalid contract. The consequences of the absolute invalid contract in the main civil law countries are the following: the

contract is void from date of induction, restitution of property, and compensation for damages. The author analyzes the consequences of the absolute invalid contract, and based on the analysis the author then valued the consequences of the absolute invalid contract in China including: restitution of property, cash compensation, compensation for damages and forfeiture of properties.

In the last chapter the author, based on past cases, points out the current problem in the definition and recognition of absolute invalid contract. Also the author gives some suggestions on the imperfection of the legal system of an absolute invalid contract.

Keywords:

Absolute invalid contract, Determination criterion, Legal consequence, System perfection suggestion

31.共同侵權的性質與責任分擔

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論文摘要：

共同侵權理論是在一般侵權的理論上發展起來的，是針對一類行爲主體具有複合型、行爲結果具有同一性並以法定權益爲損害對象的侵權行爲進行研究。共同侵權制度最早可溯源於羅馬法。此後，各國立法雖然對此均有規定，但卻各不相同。其原因在於對共同侵權的性質及責任承擔方式的認識各異。因此，研究共同侵權的本質與責任承擔方式，對研究共同侵權制度有著重要的理論意義。

本文擬分四個部分進行研究:

第一，對共同侵權行爲的本質特徵進行探究。不同的歷史發展階段，法律追求的價值不同，反映在共同侵權制度上，表現爲古代立法主要體現侵權法的懲罰價值，近代立法體現了侵權法的預防價值，現代立法則體現了侵權法的補償價值。從這些不同的法律價值取向出發，學界對共同侵權的理解大體分爲四種學說，即主觀說、客觀說、折中說和兼指說。

第二，研究共同侵權的責任承擔方式。在共同侵權責任形式中，存在按份責任、連帶責任、補充責任、補償性責任和懲罰性責任幾種責任形式，分別詳細進行闡釋。

第三，研究共同侵權與無意思聯絡數人侵權的關聯性。首先對共同侵權與無意思聯絡數人侵權進行比較的必要性予以說明，然後嘗試分析無意思聯絡數人侵權與共同侵權的關係。最後結合我國相關的立法進行分析評析。應該指出的是，《侵權責任法》的一些規定，實際是有新突破的，儘管還存在不完善之處。尤其是，它對責任承擔方式的規定也更具合理性，這都是值得肯定的。因爲無意思聯絡數人侵權行爲在道路交通事故中體現的尤爲突出，所以本文在此結合道路交通事故中的實際案例進一步加深對無意思聯絡數人侵權制度的理解。

第四，對典型共同侵權行爲的歸責提出概括性的理論構想和立法建議。通過對共同侵權制度的歷史沿革、概念演變以及責任形態的分析。筆者認爲共同侵權責任形式應包括各自獨立侵權的按份責任、客觀共同侵權的連帶責任、間接共同侵權的補充責任以及共同過錯侵權的懲罰責任。同時，筆者指出了《侵權責任法》存在的一些缺陷，由此對共同侵權行爲理論提出了些立法上的淺見。

關鍵詞：

共同侵權、無意思聯絡數人侵權、責任形式

31.The Nature and Responsibility of Joint Tort

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Abstract:

Theory of joint tort is developed from the general theory, which is for a class of behavior actors has a compound, behavior results has the identity and the object for the damage to statutory rights violations for the study.

Joint tort system began from committed in the private and simple system of joint and several liabilities in Roman law. Since then, though this is stipulated in legislation of many countries, but it varies. The reason is that understanding of the nature and responsibility form of joint tort is different. Therefore, the study on the nature and responsibility form of the joint tort has important theoretical significance for the study of joint tort system.

This paper intends to study in four parts:

Firstly, the study of nature of joint tort. Different historical stages of development, the value of the law to pursue different, reflected in the joint tort system that the composition is different. Ancient legislation is mainly reflected the punitive and revengeful value of tort law; the modern legislation reflects the preventive value of tort law; At one time, today, the legislation is reflected the compensative value of tort law. According to this different tropism of value of law, there are four parts of theory of joint tort, including theory of subjection, theory of objection, theory of middle and theory of compatibility.

Secondly, the study of liability forms of joint tort. There are proportional liability, joint and several liability, supplementary liability, compensation liability and punishment liability in tort of Plural subjects. There is a particular explanation about these forms in the paper.

Thirdly, the study of relation between joint tort and multiple person torts without contributory intention. First of all, the component elements of multiple person torts without contributory intention are defined and the issues between these elements are analyzed. Then relation between joint tort and multiple person torts without contributory intention is also defined, on the base of which, I analyses correlative law of China. It need to notice that it's not perfect that provisions of tort law, but there are some new progresses, especially more rational on defining liability form, which are worthful. In conjunction with cases of traffic accident, there is a better understanding on multiple person torts without contributory intention.

Fourthly, the study of topical general theory and legislative suggestion of joint tort and its liability

form. Through the study on the history, concept and the liability form of joint tort, I believe that liability form of joint tort includes the proportional liability of personal tort, the joint and several liability of objective joint tort and the compensation liability of indirect joint tort, the punishment liability of subjective joint tort. At the same time, I point out some disfigurement of tort law of China and give some legislative suggestions about theory of joint tort.

Keywords:

Joint tort, Multiple person torts without contributory intention, Liability form