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學歷

博士：台灣中央大學天文研究所（2003-2008）

碩士：台灣中央大學天文研究所（2001-2003）

學士：台灣中央大學數學系（1995-2000）

教學領域

碩士/博士班：現代天文學（必修）

大學部：天文科學、科技大師講座（選修）

研究領域

行星狀星雲、原行星狀星雲、主序帶後恆星
原恆星及恆星形成、彗星及太陽系小天體
多波段天體/太陽系小天體的觀測及測量
天體/太陽系小天體有機化學及其豐度與演化
天體大數據處理分析與應用

工作經歷

2017.12 - 現在 助理教授（澳門科技大學太空所）
2016.10 - 2017.11 研究人員（澳門科技大學太空所）
2015.12 - 2016.09 客座助理教授（澳門科技大學太空所）
2014.03 - 2016.10 助理研究員（香港大學深圳研究院）
2008.10 - 2016.10 博士後研究員（香港大學物理系）

學術成果

期刊文章：

1. Hsia, C.-H., Ip, W.-H., & Li, J.-Z., "Evidence for a Binary Origin of the Young Planetary Nebula Hubble 12", 2006, *Astronomical Journal*, vol. 131, pp. 3040 - 3046
2. Kwok, S. & Hsia, C.-H., "Multiple Coaxial Rings in the Bipolar Nebula Hubble 12", 2007, *Astrophysical Journal*, vol. 660, pp. 341 - 345

3. **Hsia, C.-H.**, & Li, J.-Z., "The H-alpha Halo Distribution of 10 Nearby Planetary Nebulae based on SHASSA Imaging Data", 2009, Journal of Taipei Astronomical Museum, vol. 7, pp. 9 - 23
4. Lin, Z.-Y., Lin, H.-C., Ye, Q.-Z., Lin, C.-S., Lara, L. M., Ip, W.-H., **Hsia, C.-H.**, Hsiao, H.-Y., & Lin, C.-H., "The Observation of Comet C/2007 N3 (Lulin) from SLT at Lulin Observatory", 2009, Journal of Taipei Astronomical Museum, vol. 7, pp. 1 - 8
5. **Hsia, C.-H.**, Kwok, S., Zhang, Y., Koning, N., & Volk, K., "An Optical-Infrared Study of the Young Multipolar Planetary Nebula NGC 6644", 2010, Astrophysical Journal, vol. 725, pp. 173 - 183
6. Kwok, S., Chong, S.-N., **Hsia, C.-H.**, Zhong, Y., & Koning, N. "Discovery of a Multipolar Structure with an Equatorial Disk in NGC 6072", 2010, Astrophysical Journal, vol. 708, pp. 93 - 100
7. Zhang, Y., **Hsia, C.-H.**, & Kwok, S. "Planetary nebulae detected in the Spitzer Space telescope GLIMPSE 3D Legacy Survey", 2012, Astrophysical Journal, vol. 745, pp. 59
8. Zhang, Y., **Hsia, C.-H.**, & Kwok, S. "Discovery of a Halo around the Helix nebula NGC 7293 in the WISE All-sky Survey", 2012, Astrophysical Journal, vol. 755, pp. 53
9. Zhang, Y., Fang, X., Chau, W., **Hsia, C.-H.**, Liu, X.-W., Kwok, S., & Koning, N., "[Fe III] Emission Lines in the Planetary Nebula NGC 2392", 2012, Astrophysical Journal, vol. 754, pp. 28
10. Yuan, J.-H., Li, J.-Z., Huang, Y.-F., **Hsia, C.-H.**, & Miao, J., "The Discovery of a Protostar Driving a Bipolar outflow based on the GLIMPSE Data", 2012, Astronomy & Astrophysics, vol. 540, pp. 95
11. Imai, H., Chong, S.-N., He, J.-H., Nakashima, J.-I., **Hsia, C.-H.**, Sakai, T., Deguchi, S., & Koning, N., "Extremely Strong CO13 J=3-2 Line in the "Water Fountain" IRAS 16342-3814: Evidence for the Hot-Bottom Burning", 2012, Publications of the Astronomical Society of Japan, vol. 64, pp. 98
12. Fok, T. K. T., Nakashima, J.-I., Yung, B. H. K., **Hsia, C.-H.**, & Deguchi, S., "Maser Observations of Westerlund 1 and Comprehensive Considerations on Maser Properties of Red Supergiants Associated with Massive Clusters", 2012, Astrophysical Journal, vol. 760, pp. 65
13. **Hsia, C.-H.**, Chau, W., Zhang, Y., & Kwok, S., "Hubble Space Telescope Observations and Geometric Models of Compact Multipolar Planetary Nebulae", 2014, Astrophysical Journal, vol. 787, pp. 25
14. **Hsia, C.-H.**, & Zhang, Y., "Discovery of New Low-Excitation Planetary Nebulae", 2014, Astronomy & Astrophysics, vol. 563, pp. 63
15. Nakashima, J.-I., Ladeyschikov, D. A., Sobolev, A. M., Zhang, Y., **Hsia, C.-H.**, & Yung, B. H. K., "Wide Field CO Mapping in the Region of IRAS 19312+1950", 2016, Astrophysical Journal, vol. 825, pp. 16

16. **Hsia, C.-H.**, Sadjadi, S., Zhang, Y., & Kwok, S., "The 6um feature as A Tracer of Aliphatic Components of Interstellar carbonaceous Grains", 2016, *Astrophysical Journal*, vol. 832, pp. 213
17. Yung, B. H. K., Nakashima, J.-I., **Hsia, C.-H.**, & Imai, H., "Do Water Fountain Jets really Indicate the Onset of the Morphological Metamorphosis of Circumstellar Envelopes?", 2017, *Monthly Notices of the Royal Astronomical Society*, vol. 465, pp. 4482
18. Zhang, Y., Sadjadi, S., **Hsia, C.-H.**, & Kwok, S., "Search for Hydrogenated C60 (fulleranes) in Circumstellar Envelopes", 2017, *Astrophysical Journal*, vol. 845, pp. 76
19. Huang, X. -J, Lu, Z. -P., Li, J. -Y., Mei, B., **Hsia, C.-H.**, & Zhao, H. -B., "Scattering Law Analysis Based on Hapke and Lommel-Seeliger Models for Asteroidal Taxonomy", 2017, *Research in Astronomy and Astrophysics*, vol. 17, No. 10, pp. 106
20. Yu, P. -C., Yu, C. -H., Lee, C. -D., Lin, C. -C., **Hsia, C.-H.**, Chang, C. -K., Chen, I. -C., Ngeow, C. -C., Ip, W. -H., Chen, W. -P., Laher, R., Surace, J. & Kulkarni, S. R. "Searching for Be Stars in the Open Clusters with PTF/iPTF. I. Cluster Sample and Be Star Candidates", 2018, *Astronomical Journal*, vol. 155, Issue2, article 91, pp. 17
21. Lu, X. -P., Huang, X. -J., Ip, W. -H., & **Hsia, C. -H.** "Lebedev Acceleration and Comparison of Different Photometric Models in the Inversion of Lightcurves for Asteroids", 2018, *Planetary and Space Science*, vol. 153, pp. 1
22. Fang, X., Zhang, Y., Kwok, S., **Hsia, C. -H.**, Chau, W., Ramos-Larios, G., & Guerrero, M. A. "Extended Structures of Planetary Nebulae detected in H2 Emission ", 2018, *Astrophysics Journal*, 859, 92
23. **Hsia, C. -H.**, Zhang, Y., Kwok, S., & Chau, W. "A Young Multipolar Planetary Nebula in the Making - IRAS 21282+5050", 2019, *Astrophysics and Space Science*, 364, 32
24. Wang, J, Li, H. L., Xin, L. P., Han, X. H., Meng, X. M., Brink, T. G., Cai, H. B., Dai, Z. G., Filippenko, A. V., **Hsia, C. -H.**, Hunag, L., Jia, L., Li, G. W., Li, Y. B., Liang, E. W., Lu, X. M., Mao, J., Qiu, P., Qiu, Y. L., Ren, J. J., Turpin, D., Wang, H. J., Wang, X. G., Wang, X. Y., Wu, C., Xu, Y., Yan, J. Z., Zhang, J. B., Zheng, W., & Wei, J. Y. "Photometric and Spectroscopic Studies of Superoutbursts of Three Dwarf Novae Independently Identified by the SVOM/GWAC System in 2018", 2020, *The Astronomical Journal*, 159, 35.
25. Yu, L. -L., **Hsia, C. -H.**, & Ip, W. -H. "Low-activity Main-belt Comet 133P/Elst-Pizarro: New Constraints on Its Albedo, Temperature and Activity Mechanism from a Thermophysical Perspective", 2020, *The Astronomical Journal*, 159, 66

26. Wu, C. -J., Wu, H., **Hsia, C. -H.**, Zhang, W., Ren, J. -J., Li, G. -W., Chen, J. -J., Yang, F., Shi, J. -R., Hou, Y. -H., & Liu, J. -F. "Irregular changes in H α emission line of V423 Aur observed by LAMOST Medium-Resolution Spectrographs", 2020, Research in Astronomy and Astrophysics, 20, 33
27. Zhang, Y., Sadjadi, S., & **Hsia, C. -H.** "Hydrogenated fullerenes (fulleranes) in space", 2020, Astrophysics and Space Science, 365, 67
28. **Hsia, C. -H.**, Zhang, Y., Zhang, X. -L. & Luo, T. "Discovery of extended structures around two evolved planetary nebulae M 2-55 and Abell 2", 2020, Research in Astronomy and Astrophysics, 20, 107
29. Ren, J. -J., Wu, H., Wu, C. -J., Zhang, W., Chen, J. -J., **Hsia, C. -H.**, Yang, F., Liu, C., Shi, J. -R., Wu, Y. -Z., Zhu, H., Li, B., Tian, H., & Hou, Y. -H. "On the radial velocity calibrations in the LAMOST Medium-Resolution Spectroscopic Survey of Nebulae", 2020, accepted by Research in Astronomy and Astrophysics
30. Zhang, W., Todt, H., Wu, H., Shi, J. R., **Hsia, C. -H.**, Wu, Y. Z., Wu, C. J., Zhao, Y. H., Zhang, T. M., & Hou, Y. -H., "A New Transition Wolf-Rayet WN/C Star in the Milky Way", 2020, accepted by Astrophysics Journal

會議論文：

1. Kwok, S., & **Hsia, C.-H.**, "Discovery of Multiple Coaxial Rings in the Bipolar Nebula Hb12", 2007, in Proceedings of the AAS/AAPT Joint Meeting, American Astronomical Society Meeting, 209, 156
2. **Hsia, C.-H.**, & Kwok, S., "A Sample of New Planetary Nebulae in the IPHAS and DSH Catalogue", 2012, in Proceedings of the International Astronomical Union (IAU) Symposium. No. 283: an Eye to the Future, 283, pp. 388 - 389
3. **Hsia, C.-H.**, & Kwok, S., "A Systematic Study of Young Multipolar Planetary Nebulae", 2012, in Proceedings of the International Astronomical Union (IAU) Symposium. No. 283: an Eye to the Future, 283, pp. 390 - 391
4. Zhang, Y., Kwok, S., **Hsia, C.-H.**, Nakasima, J., & Koning, N., "Planetary Nebulae Detected in the Spitzer Space Telescope GLIMPSE 3D Legacy", 2012, in Proceedings of the International Astronomical Union (IAU) Symposium. No. 283: an Eye to the Future, 283, pp. 528 - 529
5. Zhang, Y., Fang, X., Chau, W., Liu, X.-W., **Hsia, C.-H.**, & Kwok, S., "[Fe III] lines in the planetary nebula NGC 2392", 2012, in Proceedings of the International Astronomical Union (IAU) Symposium. No. 283: an Eye to the Future, 283, pp . 532 -533

6. **Hsia, C.-H.**, Chau, W., & Kwok, S., "The Optical-Infrared Study and Geometric Model of Young Multipolar Planetary nebula -- IRAS 21282+5050", 2015, in Proceedings of the 29th International Astronomical Union (IAU) Assembly Meeting, 2250740
7. **Hsia, C.-H.**, Chau, W., Zhang, Y., & Kwok, S., "The Multiple Lobes and Geometric Model of Hubble 12: A Young Planetary Nebula with two pairs of H₂ Knots", 2015, in Proceedings of the 29th International Astronomical Union (IAU) Assembly Meeting, 2254433
8. **Hsia, C.-H.**, Kwok, S., Chau, W., & Zhang, Y., "Coaxial Rings and H₂ Knots in Hubble 12", 2016, in Proceedings of Journal of Physics Conference Series, vol 728, 072009
9. Yung, B. H. K., Nakashima, J.-I., Henkel, C. & **Hsia, C.-H.** "Identification of oxygen-rich late/post-asymptotic giant branch stars and water fountains via maser and infrared criteria", 2016, in Proceedings of Journal of Physics Conference Series, vol 728, 072005
10. **Hsia, C.-H.** "The New Challenge of Planetary Nebula Research", 2018, in Proceedings of Serendipities in the Solar System and Beyond. ASP Conference, 513, 249
11. Zhang, H., Li, B. -C., Yin, J. -J., Wang, W. G., Huang, J. C., & **Hsia, C.-H.** "Scientific Objectives and Design Concept of the Spectrometers for Proposed Flyby Mission to Main Belt Comet 133P/Elst-Pizarro", 2019, in Proceedings of 50th Lunar and Planetary Science Conference, 50, 2462

研究專案

1. 2010 - 2012, 獲得香港大學小型科學研究基金, project no. 201007176028
2. 2019 -2020, 獲得澳門科技大學研究基金 , project no. FRG-19-004-SSI
3. 2019 -2021, 獲得澳門科技發展基金, project no. 0007/2019/A

專業資格認證及獎項

1. 2010 - 2012, 榮獲香港大學小型科學研究基金, project no. 201007176028
2. 榮獲2008年中國天文學會(台灣)最佳壁報論文獎

3. 1998, 榮獲尊親天文獎二等獎
4. 1997, 榮獲尊親天文獎三等獎
5. 1996, 榮獲尊親天文獎五等獎

學術機構及社會任職

1. 2008 - 目前, 國際合作計畫 ” PLANetary Nebula Binaries (PLAN-B) ” 成員
2. 數種期刊審稿人, 包括天文物理期刊 (ApJ), 天文學與天文物理研究 (RAA), 天文學進展 (AdAst), 中國化學物理期刊 (ChJCP) and 天文學期刊 (AJ)
3. 大學生與研究助理的導師
4. 兩位碩士班導師
5. 三所高中的指導老師