

## Academic Staff Resume

Name: GuoPing Hu

Title: Assistant Professor (Research)

Space Science Institute

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## Academic Qualification:

Ph.D. in in electromagnetic field and microwave technology, Huazhong University of Science and Technology, Wuhan, China, 2013

Master in Master in electromagnetic field and microwave technology, Huazhong University of Science and Technology, Wuhan, China, 2008

Bachelor in Communication Engineering, Nan Chang University, Nan Chang, China, 2006

## Research Area

Modelling, data processing and retrieval technology of physical properties from microwave data of the Moon and planetary

## Working Experience

2017.1-now: Assistant Professor (Research), Space Science Institute, MUST

2016.9-2016.12: Department of earth and planetary, UCLA, USA, scholar visitor

2014.7-2017.6: PostDoctor, Space Science Institute, MUST

## Research Projects

2016.12-now Research on the properties of lunar subsurface based on the multi-source radar observations

2015.12-2017.12 Analysis and application of the Chang'E microwave data based on the

2015.5-2017.6 Brightness temperature models of the Chang'E microwave datasets and it's

2014.7-2017.6 Integrated and comprehensive study of Multi-band lunar exploration datasets

2012.9-2014.3 Microwave Imaging Technology of Aperture Synthesis Radiometer

2012.9-2014.3 Research on microwave radiometry of typical targets at THz

2009.1-2012.7 Take charge of the modeling of microwave radiation from lunar regolith

2006.9-2008.7 Take charge of Control System for Microwave radiometer at 3mm channel with single chip C8051f

## Professional Certification and Awards

2009-2011 RIM research scholarship of RIM in Canada

## Academic Publication

Journal Articles:

1. Guo- Ping Hu, Yong-Chun Zheng , Kwing L Chan, Ao-Ao Xu, " A Rock Model for the Cold and Hot Spots in the Chang'E Microwave Brightness Temperature Map", IEEE Transactions on Geoscience and Remote Sensing, vol.99, 2018.

2. Guo-Ping Hu, Kwing L. Chan, Yong-Chun Zheng, Kang T. Tsang, Ao-Ao Xu, " Comparison and evaluation of the Chang'E microwave radiometer data based on theoretical computation of brightness temperatures at the Apollo 15 and 17 sites" *Icarus*, Volume 294,
3. Guo-Ping Hu, Yong-Chun Zheng, Ao-Ao Xu, Ze-Sheng Tang, " Microwave Brightness Temperature of the Moon: the Possibility of Setting a Calibration Source of the Lunar Surface" *IEEE Geoscience and Remote Sensing Letters*, Volume 13, Issue 2, 2016.
4. Guo-Ping Hu, Yong-Chun Zheng, Ao-Ao Xu, Ze-Sheng Tang, " Qualitative Verification of CE-2's Microwave Measurement: Relative Calibration based on Brightness Temperature Model and data Fusion" *IEEE Transactions on Geoscience and Remote Sensing*, Volume 54
5. Guo-Ping Hu, Yong-Chun Zheng, Ao-Ao Xu, Ze-Sheng Tang, " Lunar Surface Temperature of Global Moon: Preparation of Database with Topographic and Albedo Effects" *IEEE Geoscience and Remote Sensing Letters*, Volume 13, Issue 1, 2016.
6. Guoping Hu, Ke Chen, Quanliang Huang. Et Al. Brightness Temperature Calculation of Lunar Crater: Interpretation of Topographic Effect on Microwave Data from Chang'E. *IEEE Transactions on Geoscience and Remote Sensing* Vol.52. Issue 8, 2014, pp:4499 - 4510
7. Guo-Ping Hu, Wei Guo, Qing-Xia Li, Ke Chen. Microwave Brightness Temperature Features of Lunar Crater :Observation from Chang'E-1 Mission. *Journal of Applied Remote Sensing*, 7(1), 2013, doi:10.1117/1.JRS.7.073469.
8. Guo-ping Hu, Ke Chen, Qingxia Li. Et Al. Diurnal Variation of Microwave Brightness Temperature of the Moon. *J. Huazhong Univ. of Sci. & Tech. (Natural Science Edition)*, vol.41(5), 2013. (Chinese)

#### Conference Papers:

1. G. P. Hu, Q. X. Li, Y. C. Zheng Et Al. Brightness temperature of the global moon: Comparison between theoretical simulation and observation by Chang'E-1 lunar orbiter. *ICMMT 2010*: 1735-1738, 2010.
2. G. P. Hu, Y. C. Zheng, A.A.Xu, Z.S.Tang. "Calculation and Interpretation of undulated lunar surface" 11th Lunar and Planetary Science and Exploration Conference, Guiyang, 2014.11
3. G. P. Hu, Y. C. Zheng, A.A.Xu, Z.S.Tang " BRIGHTNESS TEMPERATURE OVER CRATER TYCHO : OBSERVATION AND SIMULATION" 46th LPSC, Houston, 2015.3
4. G. P. Hu, Y. C. Zheng, A.A.Xu, Z.S.Tang " Temperature profile Simulation based on the Apollo Era in-suit measurements" 2th LDSE, BeiJing, 2015.9
5. Tsang Kang Too, Hu, Guo Ping, Zheng, Yong Chun, Chang'E Microwave Radiometer Data Re-Calibration by Data Mining , International Symposium on Lunar and Planetary
6. Tsang Kang Too, Hu Guo Ping, Chan, Kwing Lam, Chang'E Microwave Radiometer Data Calibration with LRO Diviner Data and Machine Learning , Division for Planetary Sciences and the European Planetary Science Congress [DPS 48 /EPSC 11], Pasadena, 2016.10.16-
7. Zheng, Yong Chun, Chan, Kwing Lam, Zhu, Yong Chao, Hu, Guo Ping, Tsang ,Kang Too, Zou, Yong Liao, Ouyang, Zhi Yuan, Catalogue of Lunar thermal anomalies, 45th Lunar and Planetary Science Conference, Houston, 2014.3.17-2014.3.21
8. Zheng, Yong Chun, Zhu, Yong Chao, Hu, Guo Ping, Tsang Kang Too, Chan, Kwing Lam, Global Titanium Abundance of the Moon: Result from CE-2 Microwave Data Analysis, the 2nd International Forum on Lunar and Deep Space Exploration, BeiJing, 2015.9.7-2015.9.10

9. Guo-Ping Hu, Yong-Chun Zheng, Kwing L Chan, Ao-Ao Xu, "The potential constraints for the vertical variation in rock abundance of the moon by Chang'E microwave radiometer
10. Guo-ping Hu, R. Bugiolacchi, Kwing Lam Chan, Yong-chun Zheng, K. T. Tsang, "A NEW MAP OF THERMAL VARIATIONS with depth WITHIN OCEANUS PROCELLARUM and mare imbrium USING Chang'E-2 (CE-2) Microwave radiometers (MRMs) data", 2018 ILSPS, Macau, 2018.6.12-6.14