ROBERTO BUGIOLACCHI

SPACE SCIENCE INSTITUTE (SSI) – STATE KEY LABORATORY (SKL) OF LUNAR AND PLANETARY SCIENCES
MACAU UNIVERSITY OF SCIENCE AND TECHNOLOGY – AVENIDA WAI LONG - MACAU
Email: rbugiolacchi@must.edu.mo – roberto.bugiolacchi@ucl.ac.uk
ORCID: 0000-0002-1748-6372 Tel. +853 8897 1915; +44 7506 881055

PROFESSIONAL EXPERIENCE

Ongoing – **2024** **Macau University of Science and Technology,** Space Science Institute **(SSI),** State Key Laboratory (SKLPlanets), Macau

Associate Professor. Working on several projects including data analysis from the Chinese Moon and Mars missions, crater statistics analysis, and lunar igneous processes. Teaching undergraduate courses including Astronomy, Earth Sciences, and Comparative Planetology to post-graduates. Supervision of master's and PhD students.

2024 – **2016** **Macau University of Science and Technology,** Space Science Institute **(SSI),** Macau

Research-Assistant Professor. Working on several projects including data analysis from the Chinese lunar missions, crater statistics analysis, and lunar igneous processes.

2015 – **2012** **Birkbeck, University of London (BBK),** Centre for Planetary Sciences **(CPS),** London, UK

He joined the MoonZoo citizen science team as a Leverhulme-funded *post-doc researcher*. Leading the data analysis and the project's publishing output. Head of outreach and educational activities. Supervisor of two PhD candidates. Based at the Centre for Planetary Sciences at UCL (**CPS**) and Oxford University.

2012 – **2008** **Max Planck Institute for Solar System Research (MPS),** Göttingen, Germany

Post-doctoral position within the SIR-2 team (Spectrometer InfraRed) working on data analysis and geological interpretation. Developed a new spectral analysis technique (*CNA*). Other tasks include developing content and artwork for the mission's website, delivery of intradepartmental geological seminars, PR, outreach, etc.

2008 – **2003** **Sound Base Studios Trust**, Hitchin (Herts), UK

Head Tutor, organising and coordinating teaching staff and resources, teaching Multimedia, Music Technology, and English. Also setting up, running, and engineering Sound Base's professional recording studio.

Earlier employment records available on request

EDUCATION (HIGHER)

2006 – 2001 **PhD in Geology (Planetary Science)**
University College London (UCL), London, UK

"The Nubium and Imbrium Regions on the Moon: A History of Mare Flows".
Prof. John Guest (UCL) and Dr Paul Spudis (LPI) supervisors. The Lunar and Planetary Institute (LPI), USA, provided the necessary hardware and software required for analysing Clementine's multispectral image data.

2000 – 1999 **Post Graduate Certificate of Education (PGCE)**
Institute of Education (IE), London, UK

Qualified as a science Secondary School teacher. Apprenticeship and teaching at the IE, Farnham College, and Dulwich College (UK).

1999 – 1996 **B.Sc. (Hon) degree in Planetary Science**
University College London (UCL), London, UK

Earlier educational records available on request

PUBLICATIONS (PEER-REVIEWED ONLY, abstracts not included)

Liu, Z., Xu, Y., **Bugiolacchi, R. 2025.** Provenance of Ejecta and Regolith Thickness in the Vicinity of the Chang'e-6 Landing Site. *Journal of Earth Science.* **Q1** - doi: 10.1007/s12583-025-0311-5

Chang, W., etc. **Bugiolacchi, R**., et al. **2025**. Microwave thermophysical properties of surface deposits in CE-6 landing region and its potential implications for analyzing the return samples. Vol., 658., *Earth and Plant. Sci. Letts*., **Q1** - doi: 10.1016/j.epsl.2025.119326

✉**Bugiolacchi, R.,** Meng, Z., Hu, G.-P., & Mall, U. **2025**. Oceanus Procellarum and Mare Imbrium lava flows: A new comparative look using microwave radiometer data. *Journal of Geophysical Research: Planets*, 130, **Q1** – doi: 10.1029/2024JE008827

Gou, S., etc. **Bugiolacchi, R**., et al. **2025**. The basaltic regolith at the Chang'e-6 landing site. Vol., 655., *Earth and Plant. Sci. Letts*., **Q1** - doi: 10.1016/j.epsl.2025.119266

Xu, X., Xu, Y., etc. **Bugiolacchi, R**., et al. **2025**. Shallow water ice detection from SHARAD data in central Utopia Planitia, Mars. *Journal of Geophysical Research: Planets*, 130, **Q1** - doi: 10.1029/2023JE008145

Gou, S., Yue, Z., Lin, Y., Di, K., Pinet, P.C., **Bugiolacchi, R**., et al., **2024**. Complex basalt evolution in the Chang'e-6 landing area. Vol., 648., *Earth and Plant. Sci. Letts*., **Q1** - doi: 10.1016/j.epsl.2024.119091

Xie, Y., Meisel, J.D.; Meisel, C.A.; Betancourt, J.J.; Yan, J.; **Bugiolacchi, R. 2024**. Spotting Leaders in Organizations with Graph Convolutional Networks, Explainable Artificial Intelligence, and Automated Machine Learning. *Appl. Sci.* 14, 9461, **Q2 -** doi: 10.3390/app14209461

Lao, C-X., Tsoi, A.C., **Bugiolacchi, R. 2024**. ConvNext-ECA: An effective encoder network for Few-Shot learning. *IEEE ACCESS*, Vol. 12, 2169-3536, **Q2** doi: 10.1109/ACCESS.2024.3462295

Yu, C., Wang, W., **Bugiolacchi, R. 2024**. Improving generative adversarial network inversion via fine-tuning GAN encoders. *Applied Soft Computing*. Vol. 166, 112201, **Q1** doi: 10.1016/j.asoc.2024.112201

Zhang, F., Head, J. W., Wilson, L., Meng, Y., Wöhler, C., Guo, D., Niu, S., **Bugiolacchi, R**. et al. **2024**. Insights into lunar basaltic volcanism from mare domes superposed by ring-moat dome structures (RMDSs) in Mare Tranquillitatis. *Journal of Geophysical Research: Planets*, 129 **Q1**, doi: 10.1029/2023JE007969

Gou, S., Yue, Z., Di, K., Pinet, P., **Bugiolacchi, R**., & 4 co-authors. **2024**. Subsurface stratigraphy suggested by the layered ejecta craters in the Martian northern planitiae. Icarus, **Q2** doi: 10.1016/j.icarus.2024.116100

Gou, S., Yue, Z., Di, K., **Bugiolacchi, R**., & 4 co-authors. **2024**. Paleoenvironment implications of layered ejecta craters in the Chryse Planitia, Mars. Icarus, **Q2** doi: 10.1016/j.icarus.2023.115918

Luo, P., Zhang, X., Liu, R., Zhang, M., Li, C., Xu, Y., **Bugiolacchi, R**. & 17 co-authors. **2023**. Plume effects on martian surface: Revealing evolution characteristics of plume-surface interaction at Tianwen-1 landing site. *Engineering Geology*, 107278, **Q1** doi: 10.1016/j.enggeo.2023.107278

Zhang, L., Xu, Y., Liu, R., Chen, R., **Bugiolacchi, R.**, & Gao, R., **2023**. The dielectric properties of martian regolith at the Tianwen-1 landing site. *Geophysical Research Letters*, 50, **Q1**, doi: 10.1029/2022GL102207

Qiao, L., Hess, M., Xu, L., Wöhler, C., Head, J. W., Chen, J., Wang, Y., **Bugiolacchi, R**. et al., **2023**. Extensive Lunar Surface Disturbance at the Chang'e-5 Mission Landing Site: Implications for Future Lunar Base Design and Construction. *Journal of Geophysical Research: Planets*, 128, **Q1**, doi: 10.1029/2022JE007730

You, J., Zhang, X., Yu, H., Zhang, H., Li, C., **Bugiolacchi, R.**, et al., **2023**. Unveiling the mechanics of lunar regolith erosion through analysis of CE-4 and CE-5 landing images and fluid simulation. *Acta Astronautica*, Vol. 208, pp. 343-354, **Q1** doi: 10.1016/j.actaastro.2023.04.024

Zhang, M., Zhao, J., Xiao, L., Xu, Y., **Bugiolacchi, R.**, et al., **2023**. Fan-shaped deposits in the Northern Hellas Region, Mars: Implications for the evolution of water reservoir climate. *Icarus*, Vol. 395, **Q2** doi: 10.1016/j.icarus.2023.115470

Chen, R., Zhang, L., Xu, Y., Liu, R., **Bugiolacchi, R.**, et al., **2023**. Martian soil as revealed by ground-penetrating radar at the Tianwen-1 landing site. *Geology*, 51 (3): 315–319, **Q1** doi: 10.1130/G50632.1

Wang, P., ✉**Bugiolacchi, R.** & Su, Y. **2023**. A new compositional, mineralogical and chronological study of the Leibnitz crater within the SPA basin. *Planetary and Space Science*, Vol. 227, 105640, **Q3** doi: 10.1016/j.pss.2023.105640

Cao, H., Xu, Y., Xu, L., Zhang, L., **Bugiolacchi, R.**, & Zhang, F., **2023**. From Schrödinger to Von Kármán: An intriguing new geological structure revealed by the Chang'e-4 Lunar Penetrating Radar. *Geophysical Research Letters,* 50, e2022GL101413, **Q1** doi: 10.1029/2022GL101413

Luo, S. Luo, J. Chen, J., Kim, S., Hui, D., Zhang, J., Leung, A. **Bugiolacchi, R. 2022**. Bayesian Neural Networks with Covariate Shift Correction For Classification in γ-ray Astrophysics. In: Pattern Recognition and Computer Vision. PRCV 2022. *Lecture Notes in Computer Science*, vol 13535. Springer, Cham., doi: 10.1007/978-3-031-18910-4_56

Gou, S, Yue, Z, Di, K, Zhao C, **Bugiolacchi, R**. et al., **2022**. Transverse aeolian ridges in the landing area of the Tianwen-1 Zhurong rover on Utopia Planitia, Mars. *Earth and Planetary Science Letters*. Vol. 595, Oct, 117764, **Q1** doi: 10.1016/j.epsl.2022.117764

Chen, R., Xu, Y, Xie, M., Zhang, L., Niu, S. and **Bugiolacchi, R. 2022**. Sub-surface stratification and dielectric permittivity distribution at the Chang'E-4 landing site revealed by the lunar penetrating radar *Astronomy & Astrophysics*, 664 A35, **Q1** doi: 10.1051/0004-6361/202142677

Yu, C., Wang, W., Lei, H-L., ✉**Bugiolacchi, R. 2022**. 2-Step Regularization on Style Optimization for Real Face Morphing. *Neural Networks.* Vol. 155, pp 28-38, **Q1** doi: 10.1016/j.neunet.2022.08.007

✉**Bugiolacchi, R.**, Hu, G.-P., & Zheng, Y. C., **2022.** The Moon in the microwave: Shedding new light on the lunar farside. *Journal of Geophysical Research: Planets*, 127, e2021JE007039, **Q1** doi: 10.1029/2021JE007039

Qian, Y., Xiao, L., Head, J. W., Wöhler, C., **Bugiolacchi, R.,** Wilhelm, T., et al. **2021**. Copernican-aged (<200 Ma) Impact Ejecta at the Chang'e-5 Landing Site: Statistical Evidence from Crater Morphology, Morphometry and Degradation Models. *Geophysical Research Letters*, 48, e2021GL095341, **Q1** doi: 10.1029/2021GL095341

Lai, J., Xu, Y., **Bugiolacchi, R.,** Wong, H. K., Xu, L., Zhang, X., et al. **2021**. A Complex Paleo-Surface revealed by the Yutu-2 Rover at the Lunar Farside. *Geophysical Research Letters*, 48, e2021GL095133, **Q1** doi: 10.1029/2021GL095133

Zhang, F., Head, J. W., Wöhler, C., Basilevsky, A.T., L., Xie, **Bugiolacchi, R.** et al. **2021**. The Lunar Mare Ring-Moat Dome Structure (RMDS) Age Conundrum: Contemporaneous with Imbrian-Aged Host Lava Flows or Emplaced in the Copernican? *JGR-Planets*, 126, **Q1** doi: 10.1029/2021JE006880

Zhang, L.,Xu, Y., X., **Bugiolacchi, R.,** et al. **2021**. Rock Abundance and Evolution of the Shallow Stratum on Chang'e-4 landing site unveiled by Lunar Penetrating Radar Data. *Earth and Planetary Sci. Letters*, Volume 564, **Q1** doi: 10.1016/j.epsl.2021.116912

Gou, S., Yue, Z., Di, K., **Bugiolacchi, R.,** et al. **2021**. Mare basalt flooding events surrounding Chang'e-4 landing site as revealed by Zhinyu crater ejecta. *Icarus*, Volume 360, **Q2** doi: 10.1016/j.icarus.2021.114370

Gou, S., Yue, Z., Di, K., **Bugiolacchi, R.,** et al. **2021**. Geologically old but freshly exposed rock fragments encountered by Yutu-2 rover. *Journal of Geophysical Research: Planet*, Volume 126, **Q1** doi: 10.1029/2020JE006565

✉**Bugiolacchi, R.**, and Wöhler, C. **2020**. Small craters population as a useful geological investigative tool: Apollo 17 region as a case study. *Icarus*, Volume **350**, November, **Q2** doi: 10.1016/j.icarus.2020.113927

-Lai, J., Xu, Y., **Bugiolacchi, R**. et al. **2020**. First look by the Yutu-2 rover at the deep subsurface structure at the lunar farside. *Nature Commun.* 11, 3426, **Q1** doi: 10.1038/s41467-020-17262-w

Zhang, F., Head, J. W., Wöhler, C., **Bugiolacchi, R.**, Wilson, L., Basilevsky, A. T., et al. **2020**. Ring-moat dome structures (RMDSs) in the lunar Maria: Statistical, compositional, and morphological characterization and assessment of theories of origin. *Journal of Geophysical Research: Planets*, 125, e2019JE005967, **Q1** doi: 10.1029/2019JE005967

Zhang, X., Zhu, M.-H., & **Bugiolacchi**, R. **2019**. Mafic minerals in the South Pole-Aitken Basin. *J. Geophys. Res. Planets,* 124, 1581– 1591, **Q1** doi: 10.1029/2018JE005870

✉**Bugiolacchi** R. **2018**. Small Craters and their Diagnostic Potential. Planetary Remote Sensing and Mapping, Section IV: Feature Information Extraction from Planetary Remote Sensing Data. ISPRS Book Series, Taylor & Francis/CRC Press, London, 191-204, ISBN: 978-1-138-58415-0

Zhang, F., M.-H. Zhu, **R. Bugiolacchi**, Q. Huang, G.R. Osinski, L. Xiao, Y.L. Zou. **2018**. Diversity of basaltic lunar volcanism associated with buried impact structures: Implications for intrusive and extrusive events. *Icarus*, Volume **307**, pp. 216-234, **Q2** doi: 10.1016/j.icarus.2017.10.039

Zhang, F., Head, J. W., Basilevsky, A. T., **Bugiolacchi**, R., Komatsu, G., Wilson, L., Zhu, M.-H. **2017**. Newly discovered ring-moat dome structures in the Lunar Maria: Possible origins and implications. *Geophysical Research Letter*, 44, 9216-9224, **Q1** doi: 10.1002/2017GL074416

✉**Bugiolacchi** R. **2017**. Small Craters and their Diagnostic Potential. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences,* Volume XLII-3/W1, doi: 10.5194/isprs-archives-XLII-3-W1-23-2017

Zhang, X., Y. Wu, Z. Ouyang, R. **Bugiolacchi**, Y. Chen, X. Zhang, W. Cai, A. Xu, and Z. Tang, **2016**. Mineralogical variation of the late stage mare basalts, *J. Geophys. Res. Planets*, 121, 2063-2080, ***Q1*** doi: 10.1002/2016JE005051.

Tar, P.D., **Bugiolacchi, R**., Thacker, N.A., Gilmour, J.D., and the MoonZoo Team. **2016**. Estimating false positive contamination in crater annotations from citizen science data. *Earth Moon Planets*, 119:47. ***Q4*** doi: 10.1007/s11038-016-9499-9

+✉ **Bugiolacchi** R., Bamford S., Tar P., Thacker N., Crawford I., Joy K., Grindrod P., Lintott C. **2016**. The MoonZoo citizen science project: Preliminary results for the Apollo 17 landing site. *Icarus*, Volume **271**, pp. 30-48, **Q2** doi: 10.1016/j.icarus.2016.01.021

Bhatt M., Mall U., Wolhler C, Grumpe A., and **Bugiolacchi** R. **2015**. A comparative study of iron abundance estimation methods: Application to the western nearside of the Moon. *Icarus*, Volume **248**, pp. 72-88, **Q2** doi: 10.1016/j.icarus.2014.10.023

Mall, U., Wohler, C., Grumpe, A., **Bugiolacchi** R., Bhatt M., **2014**. Characterization of lunar soils through spectral features extraction in the NIR. *Adv. in Space Res.* Volume 54, Issue 10, p. 2029-2040, **Q2** doi: 10.1016/j.asr.2013.07.030

^✉ **Bugiolacchi** R., Mall U., Bhatt M., McKenna-Lawlor S., Brønstad K., and Ullaland K. **2013**. From the Imbrium Basin to crater Tycho: The first regional spectral distribution map derived from SIR-2 near infrared data. *Icarus,* Volume **233**, pp. 804-818, **Q2** doi: 10.1016/j.icarus.2013.01.018

Bhatt M., Mall U., **Bugiolacchi R**. et al., 2012. Lunar iron abundance determination using the 2-μm absorption band parameters, Icarus, Volume 220, Issue 1. pp. 51-64, **Q2** doi: 10.1016/j.icarus.2012.04.010

*✉ **Bugiolacchi** R., Mall U., Bhatt M., McKenna-Lawlor S., Banaszkiewicz M., Brønstad K., Nathues A., Søraas F., and Ullaland K. **2011**. An In-Depth Look at Copernicus Crater: Exposed Mineralogy by High-Resolution Near-Infrared Spectroscopy. *Icarus,* Volume **213**, pp. 43-63, **Q2** doi: 10.1016/j.icarus.2011.02.023

^✉ **Bugiolacchi** R., and Guest J. E. **2008**. Compositional and temporal investigation of exposed lunar basalts in the Mare Imbrium region. *Icarus,* Volume **197**, Issue 1. pp. 1-18, ***Q2*** doi: 10.1016/j.icarus.2008.04.001

✉ **Bugiolacchi** R., Spudis P. D., and Guest J. E. **2006**. Stratigraphy and composition of lava flows in Mare Nubium and Mare Cognitum. *Meteoritics & Planetary Science* 41, **Nr2**, pp. 285-304(20), ***Q2*** doi: 10.1111/j.1945-5100.2006.tb00210.x

✉ Corresponding author.
-Highlight of 2020 Nature Comms.
+ Mention in SCIENCE journal as Editors' Choice (Vol. 352, Issue 6289, pp. 1072-1073, doi: 10.1126/science.2016.352.6289.twil
^One or more figures are used as the cover image of the journal issue.
*Selected as one of the 14 papers "best representing the advances in scientific insight and understanding…" in "*Virtual Issue on the Surface Composition of the Moon*", Icarus, 2014.

GRANTS

2022 – 2027 **National Key Research and Development Program of China** – Distribution, abundance, and formation environment and sedimentary sequence construction of Martian hydrous minerals. Co–Principal Investigator – 1,200,000 RMB (~$ 180,000). It includes funding for a PhD candidate. 2021YFA0716100; OSO-22-010-SSI

2019 – 2022 **FDCT –** Small Craters as a New Investigative Planetary Tool: A Multidisciplinary Approach – Principal Investigator – MOP 1,663,200 (~$ 206,000). It includes funding for a PhD candidate and a post-doc. 0079/2019/A2.

2022 – 2024 **Open Project** Outside PI: ***Le Qiao***, Shandong Uni., PRC – Re-calibration of the Lunar Crater Chronology Using Chang'e-5 Mission Data: Revisiting the Chronology of Global Lunar Volcanism – MOP 100,000 (~ $ 12,500).

2017 – 2019 **Open Project** Outside PI: ***Jim Head III***, Brown Uni., US – Mare Imbrium Basin Evolution: Changes in style and flux with time and implications for lunar thermal evolution – MOP 80,000 (~ $ 10,000).

2018 – 2020 **Open Project** Outside PI: ***Christian Wöhler***, TU Dortmund Uni., De – Artificial Intelligence applied to crater detection and measurements: the dawn of a new era in geochronology and impact morphology – MOP 100,000 (~$ 12,500).

INVITED TALKS (SELECTED)

7/07/2025 **Meeting** – Project Group talk – Jilin University, Changchun, ***China***

18/06/2024	**European Lunar Symposium** – Dumfries and Galloway, Scotland, ***UK***
15-27/01/2024	**Int. Training Workshop on Space Science and Utilization** – Tech. and Engin. Center for Space Util. (CSU) – Beijing, **China**
04/08/2023	**AOGS** – Asia Oceania Geosciences Society – (Chair) - ***Singapore***
27/06/2023	**European Lunar Symposium** – Padua, ***Italy***
06/12/2022	**Max Planck Institute** – Planetary Science Seminar Talk (2) - Göttingen, ***Germany***
29/11/2022	**Max Planck Institute** – Planetary Science Seminar Talk (1) - Göttingen, ***Germany***
22/10/2021	**Khalifa University** – (virtual) Planetary Science Seminar – Abu Dhabi, ***UAE***
2020-2021	*online conferences only*
18/09/2019	**EPSC-DPS Joint Meeting** – Geneva, ***Switzerland***
23/07/2019	**Lunar and Deep Space Exploration** (Chair) – Zhuhai, ***China***
22/05/2019	**European Lunar Symposium** – Departmental Seminar – Manchester, ***United Kingdom***
01/10/2018	**Max Planck Institute for Solar System Research** – Göttingen, ***Germany***
26/09/2018	**Tu-Technische universität Dortmund** – Departmental Seminar – Dortmund, ***Germany***
19/09/2018	**European Planetary Science Congress** (EPSC2018) – Museum of Natural Sciences – Berlin, ***Germany***
14/06/2018	**International Symposium of Lunar and Planetary Science** – M.U.S.T. – Macau, ***China***
13/02/2018	**Università degli Studi Gabriele d'Annunzio** – Department of Geology – Pescara, ***Italy***
01/11/2017	**Georg-August-Universität** – Inst. Astrophy. - **Planetary** Seminar – Göttingen, ***Germany***
21/09/2017	**3rd International Forum on Lunar and Deep Space Exploration** - Chinese Academy of Science, Beijing, ***China***
14/07/2017	**2017 International Symposium on Planetary Remote Sensing and Mapping** – HK Pol. Uni., ***Hong Kong***
08/06/2016	**International Symposium on Lunar and Planetary Science** – (Chair) (ISLPS), Wuhan, ***China***
10/09/2015	**2nd International Forum on Lunar and Deep Space Exploration** - Chinese Academy of Science, Beijing, ***China***
21/05/2015	**Workshop on iss. in Crater Studies and Dating of Planet. Surfaces** - John Hopkins University, APL, Laurel, ***US***
14/05/2015	**European Lunar Symposium -** (ELS), Frascati, ***Italy***
05/02/2015	**APEX** talks - UCL, London, ***United Kingdom***
25/06/2014	**National Astronomy Meeting** - (NAM), Portsmouth, ***United Kingdom***
15/05/2014	**European Lunar Symposium** - (NHM), London, ***United Kingdom***
09/10/2013	**British Machine Vision Association** - (BMVA), London, ***United Kingdom***
12/09/2013	**European Planetary Science Congress -** (EPSC), London, ***United Kingdom***
22/05/2013	**Planetary Seminars** – (5 sessions) Max Planck Institute for Solar System Research - (MPS), ***Germany***
21/03/2013	**APEX** talks - UCL, London, ***United Kingdom***
21/11/2011	**LPI Seminar Series** – (USRA), Houston, TX, ***US***
09/03/2011	**LPSC** - Houston, TX, ***US***

TEACHING (ACADEMIC)

2023 – Ongoing	**Earth Science** (Undergraduates) – MUST – Macao
2022 – Ongoing	**Advanced Topics in Comparative Planetology** (PhD Candidates) – MUST – Macao
2020 – Ongoing	**Introduction to Astronomy** (Undergraduates) – MUST – Macao
2021	**Image Processing** (Postgraduates) – MUST - Macao
2015 – 2014	**Lunar Geology Module** (Undergraduates) – UCL – UK
2009	**Planetary Science Module** (Postgraduates) – MPS - De
2009 – 2008	**Planetary Geology Weekly Seminars** (Academic staff) – MPS – De

---

- Supervisor of several master's and PhD students.
- International Training Workshop on Space Science and Utilization – Chinese Academy of Science – Beijing 2024
- Regular reviewer for SCIENCE, Icarus, JGR, JGR-Planets, America Astronomical Soc., HK Granting body, and EM&P.
- The organiser of the "2019 Macau Forum for Planetary Sciences: The Interiors of Jupiter & Saturn"
- *Outstanding* Online Teaching Award – **2020** Macau University of Science and Technology