



# Research Field: Solar System Small Bodies

## Focused Field: Infrared Radiometry and Thermal Modelling

### SHORT BIO

Following a Bachelor degree of Materials Physics at Nanjing University China (2010), I was admitted to Purple Mountain Observatory (PMO) and got a Master degree of astrometry in 2013. Then I worked as a research assistant at PMO for two years in the field of infrared radiometry of small bodies until 2015, when I went to Macau University of Science and Technology (MUST) for Phd study, doing research on thermophysical modeling of small bodies under the guidance of Prof. Wing-Huen Ip. During Phd period, Prof. Ip provided me a chance to study with Prof. Tilman Spohn at DLR, Berlin in October 2017.

In 2018, I got the Phd degree. And subsequently, I continued researching on main belt comets in MUST as a postdoctoral researcher for two years.

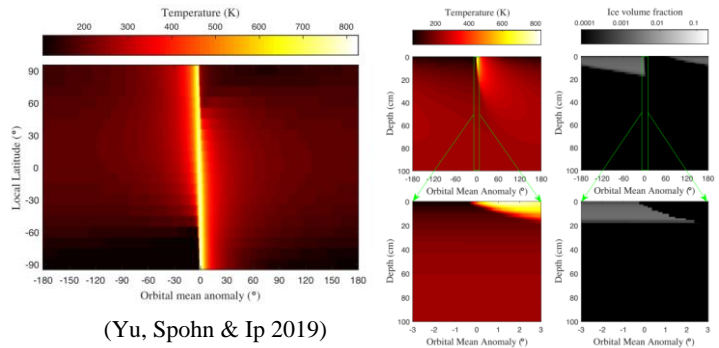
In 2020, I was offered a position as an assistant professor at the State Key Laboratory of Lunar and Planetary Science, MUST in Macau (China), affiliated with the Chinese Space Admin. I have been researching multiple aspects of solar-system small bodies. I am also teaching a number of both undergraduate and post-graduate courses.

Asst. Prof.

**Liang-Liang Yu**  
(余亮亮)



PhD: Astronomy – Macau University of Science and Technology  
Master: Astronomy – Purple Mountain Observatory (PMO)  
Bachelor : Materials Physics – Nanjing University (NJU)



Seasonal thermal, sublimation/condensation cycle of (3200) Phaethon

### KEY PUBLICATIONS (first author)

- Yu L.L., Ip Wing-Huen, 2021. *Thermophysical Model for Realistic Surface Layers on Airless Small Bodies: Applied to Study the Spin Orientation and Surface Dust Properties of (24) Themis from WISE/NEOWISE Multiepoch Thermal Light Curves*, *ApJ*, 913, 96
- Yu L.L., Hsia Chih Hao, Ip Wing-Huen, 2020. *Low-activity main belt comet 133P/Elst-Pizarro: New constraints on its Albedo, Temperature and Active Mechanism from a thermophysical perspective*, *AJ*, 159, 66
- Yu L.L., Ip Wing-Huen, Spohn Tilmn, 2019. *What mechanisms dominate the activity of Geminid Parent (3200) Phaethon?*, *MNRAS*, 482, 4233

### PROFESSIONAL EXPERIENCE

- On going 2020.12 – Macau University of Science and Technology (Macau) – Assistant Professor
- 2018.12– 2020.11 – Macau University of Science and Technology (Macau) – Postdoctoral Researcher
- 2019.03 – Department of Earth, Planetary & Space Sciences, UCLA (USA) – visitor
- 2017.10 – Institute of Planetary Research, German Aerospace Center (DLR, Berlin) – visitor
- 2017.03– Institute of Astronomy, National Central University (Taiwan) – visitor
- 2013.07 – 2015.11 – Purple Mountain Observatory (China) – Research assistant

### GRANTS

- FDTC (No. 0051/2021/A1), 2021.09-2024.12, Principal Investigator: *Multi-angle research on the physical properties of main belt comet 133P and its family as scientific references for China's "Zheng He" space mission*
- NFSC (No. 11403105), 2015.01-2017.12, Principal Investigator : *Surface thermophysical properties investigation of asteroids*