Astronomy & Planetary Science Graduate Student 7th Semester Talks

Anna Baker

“In the sandbox: Testing the effects of aeolian transport on Martian sands and applications for identifying dune sand sources”

For 3.6 billion years, aeolian (windblown) processes have been essential on the surface of Mars, from its widespread sand dunes to its global dust storms. I have developed a device for simulating the effects of aeolian transport on sand grains in a controlled laboratory setting. I am using the device to test the mineralogical and morphological evolution of Mars analog sand as it undergoes aeolian transport. I will use my findings to help interpret remote sensing data from Mars to identify sand sources and sediment transport pathways.

Cece Thieberger

“Cloudy with a chance of methane:
An Exploration of Titan's Chemical Systems”

Titan is the only extraterrestrial environment known to support bodies of standing liquid on its surface. These lakes, seas, and rivers of liquid methane serve as a sink for Titan's methane-based weather cycle, which promotes interactions between the surface material and the nitrogen-rich atmosphere. In this talk, we will explore Titan’s atmospheric chemistry with telescope observations and modeling, as well as the chemical systems at depth in its lakes and seas through lab experiments.

Monday, December 2nd, 2024
3:30 PM MST
Room 103 in the Physical Sciences building 19

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