

Tuesday, May 16, 2017
**IT FLOWS, NOT BLOWS — WATER ANALOGS AND INSIGHT
 FOR VENUS, TITAN, AND MAYBE EVEN MARS**
 8:50 a.m. Zion Room

Chairs: Lynn Neakrase
 Jacob Nienhuis

- 8:50 a.m. Rubin D. M. *
[*Comparison of Morphology, Dynamics, and Stratification of Eolian and Subaqueous Dunes*](#) [#3009]
 This work is a review of similarities and differences of eolian and subaqueous dunes. It compares morphology, dynamics, and stratification of dunes in these two fluids.
- 9:20 a.m. Nienhuis J. H. * Perron J. T. Traykovski P. A.
[*Mechanics of Marine Ripples and Implications for Planetary Analogs*](#) [#3005]
 We report on recent developments towards a firm mechanistic understanding of subaqueous ripple spacing that is essential for accurate ripple-derived (paleo) flow reconstructions of distant environments.
- 9:50 a.m. Neakrase L. D. V. Klose M.
[*Comparing Terrestrial Seafloor Dunes to Venusian Dunes*](#) [#3049]
 Comparison of terrestrial subaqueous seafloor dunes morphology to Venusian dunes. We look at similarities in flow environment and how they relate to morphological similarities observed between the two environments.
- 10:10 a.m. Sutton S. L. F. * Nield E. V. Burr D. M. Bridges N. T. Smith J. K. Kok J. F.
 Turney F. A. Marshall J. R.
[*Towards a Classification Scheme for Aeolian Fluid Ejection: Observations During High-Pressure Wind Tunnel Experiments*](#) [#3040]
 We present a classification of aeolian fluid ejections and transport based on observations from high atmospheric density wind tunnel experiments in the Titan Wind Tunnel. Implications for transport on Venus and Titan are discussed.
- 10:30 a.m. Wang C. * Bristow N. Blois G. Christensen K. T. Anderson W.
[*Large-Eddy Simulation and Experimental Research of Proximal Deformed Barchan Dunes*](#) [#3013]
 Large-eddy simulation and experimental measurements have been used on four different stages of two proximal deformed barchan dunes in high Reynolds number. Special fluid structure and sediment migration have been found in the flow channel area.
- 10:50 a.m. Sakimoto S. E. H. * Neakrase L. D. V. Klose M. Zimbelman J. R.
[*Computational Modeling of Terrestrial Sub-Aqueous and Venusian Near-Surface Particle Trajectories and Transport*](#) [#3051]
 This study uses a Computational Fluid Dynamics (CFD) approach with commercial software to model particle trajectories within Venusian and sub-aqueous environments as a function of particle size, density, flow field velocity, and ambient conditions.
- 11:10 a.m. PANEL DISCUSSION
- 11:30 a.m. Lunch