

**Tuesday, May 16, 2017**  
**DUNE MORPHOLOGY AND RESPONSE TO WIND REGIME**  
**3:00 p.m. Zion Room**

**Chairs:** Claire Newman  
 Simone Silvestro

- 3:00 p.m. Narteau C. \* Gao X. Rozier O.  
[Morphodynamics of Dome Dunes Under Unimodal Wind Regimes](#) [#3032]  
 Dome dunes are individual sand piles with a rounded shape and no slip face. Using numerical simulations and satellite imagery, we show how dome dunes can be used to provide a reliable source of information about local wind regimes.
- 3:20 p.m. Tsoar H. \* Parteli E. J. R.  
[The Implications of Symmetric and Asymmetric Barchans on Mars](#) [#3003]  
 Barchan dunes may undergo a transition to a seif dune under a bimodal wind regime. Understanding the barchan-seif dune transition is important for the research of dune field evolution and for the investigation of planetary climate and wind regimes.
- 3:40 p.m. Jackson D. W. T. \* Cooper J. A. G. Green A. Beyers M. Wiles E. Benallack K.  
[CFD Airflow Modelling Over Reversing Transverse Ridges, Mpekwini Beach, South Africa](#) [#3025]  
 Reversing dunes are relatively rare aeolian landforms on Earth with low net migration rates. Usually locked within a defined spatial area under bi-directional wind regimes, how and why these dunes move is examined using 3D CFD airflow modelling.
- 4:00 p.m. Fernandez-Cascales L. Lucas A. \* Rodriguez S. Narteau C. Spiga A.  
[From Martian Dunes to Martian Winds](#) [#3026]  
 We've studied two dunefields on Mars near the north pole. From the dune orientations, which depend on the local coverage in dune material, we were able to estimate the direction and strength ratio of the two main winds blowing in the two sites.
- 4:20 p.m. Lian Y. \* Newman C. E. McDonald G. D. Richardson M. I. Malaska M. J.  
[The Impact of Surface Properties and Dune Formation Hypothesis on Predicted Dune Transport and Orientations in the Aeolis Research Titan GCMs](#) [#3045]  
 We use Aeolis Research Titan GCMs to investigate the effect of wind stresses and topography on Titan's dune transport and orientations at low latitudes, where the observations suggest the net transport of dune materials is predominantly westward.
- 4:40 p.m. PANEL DISCUSSION