

Thursday, March 22, 2018
INCREDIBLE ICY SATELLITES
3:15 p.m. Montgomery Ballroom

[R557]

Chairs: Katherine de Kleer
Donald Patthoff

- 3:15 p.m. Ferrari C. * Lucas A.
[Thermophysics of Airless Icy Surfaces: Clues to Their Structure](#) [#1417]
The low thermal inertias of icy regoliths and their decrease with solar distance are analyzed with a thermophysical model to provide hints on their structure.
- 3:30 p.m. Molaro J. L. * Meirion-Griffith G. Phillips C. B. Mitchell K. L. Hodyss R. et al.
[Microstructural Evolution of Solar System Ices Through Sintering](#) [#2977]
We investigate the microstructural evolution of solar system ices through sintering.
- 3:45 p.m. Hammond N. P. * Caswell T. E.
[Ductile Shear Zones on Icy Satellites Enabled by Grain Size Evolution](#) [#2373]
We model grain size evolution beneath strike-slip faults on icy satellites. We predict strain localization and the potential formation of “ice mylonites.”
- 4:00 p.m. Howell S. M. * Pappalardo R. T.
[Can Earth-Like Plate Tectonics Occur in the Outer Ice Shells of Icy Satellites?](#) [#1132]
Pulled inside the shell, / Heavy ice drives renewal. / Not so for ice moons.
- 4:15 p.m. Leonard E. J. * Morales K. M. Yin A. Pappalardo R. T.
[Ridges, Ridges Everywhere: A Physical Analogue Modeling Approach to Analyzing Ridge Formation on Icy Satellites](#) [#1553]
Icy satellites / Many have ridged surfaces / Ductile ice is key.
- 4:30 p.m. Schultz P. H. *
[Relating Crater Peaks, Pits, and Peak Rings on Icy and Silicate Bodies](#) [#2748]
Relative diameters of central structures are reconciled using different scaling relations between initial stages of cratering and gravity-controlled growth.