

Thursday, March 24, 2016
TITAN: REAL COOL WORLD
8:30 a.m. Waterway Ballroom 4

[R502]

Chairs: **Karl Mitchell**
Alexander Hayes

- 8:30 a.m. Singh S. * McCord T. B. Combe J.-Ph. Rodriguez S. Cornet T. et al.
[Acetylene on Titan's Surface](#) [#2823]
 Identification of acetylene on the surface of Titan using laboratory and Cassini VIMS data.
- 8:45 a.m. Hodyss R. * Cable M. Vu T. H. Malaska M. J.
[Carbon Dioxide Chemistry on Titan's Surface](#) [#2089]
 Carbon dioxide reacts with primary amines under Titan surface conditions, constraining the lifetime of free carbon dioxide on the surface and in the atmosphere.
- 9:00 a.m. Malaska M. J. * Hodyss R. Lunine J. I. Hayes A. G. Hofgartner J. et al.
[The Dissolved Nitrogen Fluffiness of Titan Lakes](#) [#1729]
 Drip-drop, fizz-fizz, oh what a nitrogen release it is!
- 9:15 a.m. Hayes A. G. * Mastrogiuseppe M. Lunine J. I. Poggiali V. Lorenz R. D. et al.
[The Bathymetry and Composition of Titan's Lakes and Seas](#) [#1904]
 The Cassini RADAR has recently been used as a sounder to probe the depth and composition of Titan's seas. We will present new results in the ongoing campaign.
- 9:30 a.m. Mitchell K. L. * Lunine J. I. Barmatz M. B. Jamieson C. S. Malaska M. J. et al.
[Towards an End-to-End Model Relating Microwave Observations to Bulk Chemistry of Titan's Lakes and Seas](#) [#2544]
 Titan's obscured seas / Peer inside with microwave / Dielectric soup.
- 9:45 a.m. Grima C. * Mastrogiuseppe M. Hayes A. Wall S. Stiles B. et al.
[Radar Statistical Reconnaissance with the Cassini RADAR: Roughness of Titan's Seas](#) [#1660]
 We apply the Radar Statistical Reconnaissance (RSR) technique to the Cassini radar data set over Titan's seas in order to constrain their surface properties.
- 10:00 a.m. Neighbour D. G. * Singh S. S. Chevrier V. F.
[Cryogenic Viscous Liquids on Icy Moons](#) [#1483]
 The analysis of cryogenically viscous liquids offers critical insight into the effect of sediments upon icy moons' fluid dynamics.
- 10:15 a.m. Farnsworth K. * McMahon Z. Laxton D. Chevrier V. Soderblom J.
[Experimental Study of the Effects of Freezing on Liquid Hydrocarbons on the Surface of Titan](#) [#2485]
 An experimental analysis of the freezing processes of ethane and methane/ethane mixtures under Titan surface conditions.
- 10:30 a.m. Hofgartner J. D. * Buratti B. J. Brown R. H. Barnes J. W. Sotin C. et al.
[Erosion of Titan's Craters from Cassini RADAR and VIMS Imagery](#) [#2591]
 Craters on Titan / Aeolian and fluvial erosion / Cassini RADAR and VIMS reveal.
- 10:45 a.m. Kinser R. M. * Neish C. D. Howard A. D. Schenk P. Bray V. J.
[Geological Conditions Required for the Fluvial Erosion of Titan's Impact Craters](#) [#2627]
 Crater holding strong / Exposed on a diverse world / Can it endure time?

- 11:00 a.m. Schurmeier L. R. * Dombard A. J. Radebaugh J.
[*Titan's Isolated Mountain Plateaus: Investigating Possible Support Mechanisms and Cryovolcanic Origins*](#) [#2197]
Mountains on Titan / Not Airy isostatic / Cryovolcanic?
- 11:15 a.m. Lorenz R. D. * Le Gall A. Turtle E. P. Mastrogiuseppe M. Poggiali V. et al.
[*The Edge of Xanadu: Investigation with Altimetry and Nadir Emissivity*](#) [#1910]
Bright and Dark Lands Meet / Titan's Mystery Contrast / New data look down.
- 11:30 a.m. Cartwright R. J. * Burr D. M. Nagle N. N.
[*Using Terrestrial Analogs to Test Alluvial Fan Formation Mechanisms on Titan*](#) [#1362]
We are analyzing the radar signatures of debris flow and sheetflood fans in Death Valley, CA and comparing them to hypothesized fans on Titan.