Monday, March 20, 2017 **[M103]**
TITAN: A MOON THAT RESEMBLES A PLANET
8:30 a.m. Waterway Ballroom 5

Chairs: **Michael Malaska**
Jennifer Hanley

8:30 a.m. Chakraborty S. * Immekus C. Thiemens M. H.
Investigating Formation and Evolution of Titan's Atmosphere Through Its Isotopic Inventory and New Photochemical Studies **[#2032]**
Convoluting the new isotopic results of NH_3 photodissociation, past results, and isotopic inventory of Titan, a mechanism for Titan's atmosphere will be made.

8:45 a.m. Miller K. E. * Glein C. R. Waite J. H. Jr.
A New Source for Titan's N_2 Atmosphere: Outgassing from Accreted Organic-Rich Dust in Titan's Interior **[#2072]**
Isotopes, argon / Total abundance agree / Organics matter.

9:00 a.m. Brossier J. F. * Rodriguez S. Maltagliati L. Cornet T. Lucas A. et al.
Equatorial Belt of Titan Revisited Using a Comprehensive Radiative Transfer Model **[#1399]**
Constrain the surface composition in Titan's equatorial belt by using an heuristic correction and applying a radiative transfer model on VIMS IR observations.

9:15 a.m. Dhingra R. * Barnes J. W. Brown R. H. Buratti B. J. Sotin C. et al.
Transient Broad Specular Reflections from Titan's North Pole **[#1519]**
We test the possibility of observed broad specular reflection from Titan's north pole in T120 being recently wetted surface, also called "wet-sidewalk effect."

9:30 a.m. Hayes A. G. * Soderblom J. M. Donelan M. A. Lorenz R. D.
Modeling and Observing the Role of Wind-Waves on Titan's Hydrocarbon Seas: Adding Anemometry to Cassini's Repertoire **[#2065]**
We couple a wave generation model to Cassini observations of roughness on Titan's lakes/sea to constrain surface winds and use Cassini as an anemometer.

9:45 a.m. Corlies P. * Birch S. P. D. Hayes A. G. Lorenz R. Stiles B. et al.
An Updated Approximation of Titan's Global Topography **[#2703]**
We have developed an updated global topographic model of Titan using the full ~6% areal coverage of elevation data from the Cassini mission.

10:00 a.m. Malaska M. J. * Lopes R. M. C. Mitchell K. L. Radebaugh J. Verlander T. et al.
Classification of Labyrinth Terrains on Titan **[#2406]**
Lost hidden valleys / Labyrinths of mystery / Measured on Titan.

10:15 a.m. Cornet T. * Fleurant C. Seignovert B. Cordier D. Bourgeois O. et al.
Landscape Evolution Through Dissolution on Titan: A 3D Landscape Evolution Model **[#1835]**
We are using a Landscape Evolution Model adapted to Titan's chemistry and climate to study the landscape evolution by dissolution through time at high latitudes.

10:30 a.m. Hanley J. * Pearce L. Thompson G. Grundy W. Roe H. et al.
Methane, Ethane, and Nitrogen Stability on Titan **[#1686]**
Will Titan's lakes freeze? / Not when mixed with nitrogen / Might form two liquids!

10:45 a.m. Heslar M. * Farnsworth K. Chevrier V. Czaplinski E. Laxton D.
Simulations of Titan Lakes: Potential Methane-Ethylene Evaporitic Deposits **[#2657]**
Simulations of Titan surface processes provide spectral evidence for the possibility of methane-ethylene evaporites existing in dry lake beds on Titan.

11:00 a.m. Cable M. L. * Vu T. H. Maynard-Casely H. E. Hodyss R.
Laboratory Investigations of Titan Evaporite Materials **[#2197]**
On Titan's surface / Like hydrated minerals / Co-crystals abound.

11:15 a.m. Farnsworth K. * McMahon Z. Laxton D. Chevrier V. Soderblom J. M.
Experimental Study of the Effects of Freezing on Liquid Hydrocarbons on the Surface of Titan **[#1974]**
An experimental study under Titan surface conditions of hydrocarbon ice and the presence of nitrogen bubbles.

11:30 a.m. Czaplinski E. * Farnsworth K. Laxton D. Chevrier V. Heslar M. et al.
Experimental Results of Evaporite Deposits on Titan Using a Surface Simulation Chamber **[#1537]**
In Titan's cold lakes / Lies a shallow mystery / Evaporating…