Thursday, March 10, 2011
POSTER SESSION II: VOLCANISM IN THE OUTER SOLAR SYSTEM
6:00 p.m. Town Center Exhibit Area

Williams D. A. Keszthelyi L. P. Crown D. A. Geissler P. E. Schenk P. M. Yff J. Jaeger W. L.
Volcanism on Io: Final Results from Global Geologic Mapping **[#1066]**
This abstract discusses the results from global geologic mapping of Jupiter's moon Io, including the geographical distribution of 19 types of material units and diffuse deposits.

White O. L. Schenk P. M.
Derivation and Refinement of Topographic Maps of Io Using Voyager and Galileo Stereo Images **[#2315]**
Customized ISIS software developed at LPI has been used to create topographic maps of different sites on Io using Galileo stereo images. Input parameters of the software have been refined in an attempt to achieve maps of the best quality.

Davies A. G. Keszthelyi L. P. McEwen A. S.
Erta'Ale (Ethiopia) Lava Lake Thermal Emission Variability — What We Need to Measure to Answer the Biggest Open Question About Io's Lavas **[#2023]**
In order to determine the eruption temperature of Io's lavas, imagers need to obtain multispectral data very quickly in order to overcome wild variations in derived temperatures caused by rapid cooling and variation in volcanic activity.

Rathbun J. A. Kamp L. W. Lopes R. M. Spencer J. R.
Tvashtar and Other Active Ionian Volcanoes from New Horizons MVIC and LORRI Data **[#2207]**
Measurements of power output and derived temperatures. Neither the Tvashtar nor East Girru eruptions varied dramatically in the two days of observations. The emitting surface at Tvashtar appears to be horizontal.

Hamilton C. W. Beggan C. D. Lopes R. Williams D. A. Radebaugh J.
Spatial Distribution of Volcanic Hotspots and Paterae on Io: Implications for Tidal Heating Models and Magmatic Pathways **[#1025]**
Global and hemispheric distributions of volcanic hotspots and paterae on Io are examined using a new nearest neighbor analysis technique to test tidal dissipation models and explore possible implications for magma ascent.

Bramson A. M. Phillips C. B. Emery J. P.
A Search for Ongoing Geologic Activity on Jupiter's Satellites **[#1606]**
We have compared images of Jupiter's satellites from the Galileo flybys of the late 1990's with images from the New Horizons spacecraft in 2007 to look for changes in surface features as an indication of ongoing geologic activity.

Quick L. C. Barnouin O. S. Patterson G. W. Prockter L. M.
The Feasibility of Detecting Eruptive Venting on Europa **[#1609]**
We present a model for the detection of cryovolcanic venting on Europa, based on optical depths of potential cryoplumes and constrained by the timescale of eruptive venting.

Thompson D. R. Bunte M. Castaño R. Chien S. Greeley R.
Onboard Image Processing for Autonomous Spacecraft Detection of Volcanic Plumes **[#2433]**
Onboard spacecraft image processing could enable long-term monitoring for volcanic plume activity in the outer planets. A new plume detection technique shows strong performance on images of Enceladus and Io taken by Cassini, Voyager, and Galileo.

Furfaro R. Kargel J. S. Wibben D. Lopes R. M. Kirk R. L. Mitchell K. L.
Geological Processes on Titan Driven by Low Thermal Conductivity Volatile-Rich Deposits: Implications for Ammonia-Water Cryovolcanism **[#2329]**
A model of the subsurface thermal environment beneath Titan's Sotra Faculacryovolcanic construct is presented and implications for ammonia-water cryovolcanism are discussed.

Wood C. A.
Bipolar Volcanism on Titan? **[#1313]**
Many circular and irregular depressions in Titan's polar areas have morphologies consistent with caldera or maar volcanism. If so, concentration of volcanism at Titan's poles suggests that the low elevations there coincide with thin crusts.