

Thursday, March 22, 2018
GROOVY GALILEAN SATELLITES
8:30 a.m. Montgomery Ballroom

[R505]

Chairs: Michael Malaska
Morgan Cable

- 8:30 a.m. Senske D. A. * Leonard E. J. Patthoff D. A. Collins G. C.
[The Europa Global Geologic Map](#) [#1340]
A global geologic map of Europa has been produced. The relationship between plains, cryovolcanic, and tectonic terrains are assessed.
- 8:45 a.m. Collins G. C. * Patterson G. W. Prockter L. M. Kattenhorn S. A. Cooper C. M. et al.
[Reconstruction of Plate-Like Motions Provide Clues to the Behavior of Europa's Ice Shell](#) [#2493]
The icy crust moves / Then it all grinds to a halt / Not so much like Earth.
- 9:00 a.m. Walker C. C. * Schmidt B. E.
[Investigating Active Chaos Formation as the Source of Europa's Water Vapor Plumes](#) [#1302]
We investigate the likelihood that Europa's putative plumes could be produced through active chaos formation, rather than by tidally-controlled large rifts.
- 9:15 a.m. Rathbun J. A. * Howell R. R. Spencer J. R.
[Active Volcanoes on Io: Putting Ground-Based Observations of Jupiter Occultations into the PDS](#) [#2208]
Loki returns to / Periodic eruptions / Io data yours.
- 9:30 a.m. Nunez K. A. * Martin E. S.
[Do Chaos, Domes, Pits, and Spots Contribute to Changing Morphology of Europa's Ridges?](#) [#2473]
We hypothesize that near surface heat as manifested by PSD and chaos influence the local environment sufficiently to affect morphology of ridges across Europa.
- 9:45 a.m. Vance S. D. * Glein C. R. Bouquet A. Cammarano F. McKinnon W. B. et al.
[Exploring the Parameter Space of Europa's Ocean Salinity Through Time](#) [#1707]
We consider the formation of Europa and the resulting composition of its ocean, assuming pure chondritic inputs. CM or CV fit, and match Jupiter's formation.
- 10:00 a.m. Dombard A. J. * Sessa A. M.
[Gravity is a Key Experiment to Address the Habitability of a Subsurface Ocean in Jupiter's Moon Europa](#) [#1593]
Gravity anomaly magnitudes can reveal the existence of volcanism on the rock-water interface, which would enhance the potential of the ocean as a habitat.
- 10:15 a.m. Noviello J. L. * Rhoden A. R.
[Identification of Microfeatures on Europa in Low-Resolution Galileo Images: Successes, Limits, and Implications for Europa's Exploration](#) [#2707]
Europa's surface / Long hid by poor imaging / Now yields its secrets.
- 10:30 a.m. Costello E. S. * Ghent R. R. Lucey P. G.
[Impact Gardening on Cryospheres: The Depth to Ice and Organics on Europa and Ceres](#) [#1300]
Impacts into ice / On Ceres and Europa / Garden ice at depth.
- 10:45 a.m. de Kleer K. * Butler B. de Pater I. Gurwell M. Moreno R. et al.
[Thermal Properties of the Icy Galilean Satellites from Millimeter ALMA Observations](#) [#2567]
We present spatially-resolved maps of the leading and trailing hemispheres of Europa, Ganymede, and Callisto from ALMA millimeter wavelength observations.

- 11:00 a.m. Henderson B. L. * Gudipati M. S. Bateman F. B.
[*Preliminary Hardness Measurements of Europa Ice Analogs Under MeV Radiation*](#) [#2618]
Europa's surface: / Hard to drill. But salvation / In radiation?
- 11:15 a.m. Poston M. J. * Carlson R. W. Hand K. P.
[*Spectral Behavior of Irradiated Sodium Chloride Crystals Under Europa-Like Conditions*](#) [#1206]
Salt on Europa / Could reveal ocean matter / Color may be key.
- 11:30 a.m. Ligier N. * Carter J. Poulet F. Snodgrass C.
[*New Insights into Surface Properties of Ganymede and Callisto Using Ground-Based Measurements from SINFONI/VLT*](#) [#2128]
This abstract deals with near-infrared ground-based data of Ganymede and Callisto. New insights into surface properties of the two satellites will be presented.