Monday, October 24, 2016
INSTRUMENTS FOR ORBITER AND FLYBY MISSIONS
1:30 p.m. Pasadena

Chair: Leslie Tamppari

1:30 p.m. Brageot E. * Lindeman M. Orton G.
Instrument Trade Study and Design for Mid to Far-IR Atmospheric Remote Sensing of an Outer Solar System Planet Based on High Temperature Bolometers **[#4115]**
I will present the design trade study that led us to the concept of an on-orbit or fly-by mid- to far-Infra-Red Fourier Trans-form Imaging spectrometer design for outer planets of the solar system.

1:45 p.m. Kleinboehl A. * Schofield J. T. Kass D. M. McCleese D. J.
The Advanced Mars Climate Sounder (AMCS) — A Proven Atmospheric Profiler for Future Mars Orbiters **[#4066]**
We describe a mature, low-cost, and low-risk infrared atmospheric profiler based on MRO/MCS heritage for measuring atmospheric temperature, dust, water ice, carbon dioxide ice, and water vapor on a future Mars orbiter mission.

2:00 p.m. Burks M. T. * Heffern L. E. Lawrence D. J. Goldsten J. O. Peplowski P. N.
GeMini Plus: A Versatile Gamma-Ray Spectrometer for Planetary Composition Measurements **[#4087]**
GeMini Plus is a high-resolution, low-resource, gamma-ray spectrometer for planetary composition measurements. The core of the instrument has a mass of ~3 kg and requires ~10 watts power, making it well suited for both landed and orbital missions.

2:15 p.m. Clark G. * Westlake J. H. Mitchell D. G. Hoffer E. Brandt P. C.
The Low Energy Neutral Imager (LENI) **[#4042]**
New neutral atom imager that utilizes a novel electro-optical approach to measure low-energy ENAs with high-sensitivity and angular resolution.

2:30 p.m. Panini S. Narendranath S. * Sreekumar P. Athiray P. S. Nayak M.
Soft X-Ray Imager Using Multilayer Mirror Optics for Martian Exospheric Studies **[#4054]**
We will present the conceptual design and developmental status of a X-ray imager for measuring solar wind charge exchange X-ray emission from the martian exosphere from an orbiter around the planet.

2:45 p.m. Davis M. W. * Gladstone G. R. Retherford K. D.
Improving Performance in Planetary Ultraviolet Spectrographs **[#4077]**
Four planetary ultraviolet spectrographs by SwRI have successfully operated on different planetary missions. Two more will operate aboard the JUICE and Europa missions with advancements to allow operations in the Jovian environment.

3:00 p.m. Blaney D. L. * Green R. O. Mouroulis P. Ehlmann B. L. Van Gorp B. McKinnley I. Rodriguez J. M. Lamborn A. Haag J. Cable M.
Ultra Compact Imaging Spectrometer **[#4067]**
The Ultra Compact Imaging Spectrometer (UCIS) is a visible to short wavelength infrared imaging spectrometer with a modular architecture. It is possible to adapt to the instrument details to a variety of mission concepts requiring low mass and low power.

3:15 p.m. Abshire J. B. * Guzewich S. D. Smith M. D. Riris H. Sun X. Gentry B. M. Yu A. Allan G. R.
MARLI: MARs LIdar for Global Wind Profiles and Aerosol Profiles from Orbit **[#4034]**
Winds are the key variable to understand atmospheric transport and to answer fundamental questions about the three primary cycles of the Mars climate. We are developing a new orbital lidar to directly measure both wind profiles and aerosol profiles.

3:30 p.m. *Coffee Break*