**Thursday, March 22, 2018 [R622]**
**POSTER SESSION II: INSTRUMENT AND PAYLOAD CONCEPTS III: RADAR, SEISMOLOGY, GRAVIMETRY, AND XRD**
**6:00 p.m. Town Center Exhibit Area**

Xiao Y. Su Y. Feng J. Q. Dai S. Xing S. G. et al. ***POSTER LOCATION #361***
*Performance Evaluation of Lunar Regolith Penetrating Radar Onboard the Lander of Chang'e-5 Based on Results of Ground Experiments and Simulations* **[#1778]**
This study focuses on performance evaluation of the Lunar Regolith Penetrating Radar onboard Chang'e-5 lander, based on ground experiments and simulations.

Feng J. Su Y. Dai S. Xing S. Xiao Y. et al. ***POSTER LOCATION #362***
*New Imaging Algorithms Developed for Chang'e-4 Lunar Penetrating Radar* **[#2180]**
A introduction to the proposed imaging algorithms for the second channel of Chang'e-4 lunar penetrating radar.

Su Y. Li C. L. Feng J. Q. Dai S. Xiao Y. et al. ***POSTER LOCATION #363***
*Radar Payloads Onboard Chinese Lunar and Martian Probes* **[#1984]**
This abstract introduces the radar payloads onboard Chinese lunar and martian probes.

Xing S. G. Su Y. Dai S. Feng J. Q. Xiao Y. et al. ***POSTER LOCATION #364***
*Key Issues in China 2020 Mars Orbital Subsurface Sounding Radar Scheme* **[#1881]**
This article discusses China 2020 Mars Orbital Subsurface Sounding Radar scheme and presents three key issues facing the radar.

Osinski G. R. Baylis A. Barnard I. Allen P. Caves R. et al. ***POSTER LOCATION #365***
*Rationale and Concept for a Synthetic Aperture Radar and Sub-Surface Ice Sounder for Mars* **[#1961]**
In this contribution we report on a Canadian Space Agency-funded study for a Synthetic Aperture Radar and sub-surface ice sounder for a future Mars orbiter.

Feng L. Deng C. Li Y. Li M. Muller J.-P. ***POSTER LOCATION #366***
*Radar Polar Region Research on Earth, Venus, Saturn, Jupiter, and Their Moons* **[#1715]**
This study focuses on DTMs generation, DTM co-registration for rover landing, ionospheric tomography, 3D tomographic SAR imaging in polar ICE region of planets.

Christoph J. M. Williams D. A. ***POSTER LOCATION #367***
*The Science Case for Spaceborne Radar Observations at Io* **[#2868]**
Subsurface features / May be revealed by future / Radar at Io.

Kedar S. Chui T. C. P. Paik H. J. Stone K. J. Moody M. V. et al. ***POSTER LOCATION #368***
*A Planetary Broad Band Seismometer (PBBS) for the Lunar Geophysical Network and Ocean Worlds* **[#1485]**
Report on the technology advancement of an ultra-sensitive Planetary Broad Band Seismometer for the Lunar Geophysical Network concept and for Ocean Worlds.

Palomba E. Dirri F. Longobardo A. Biondi D. Boccaccini A. et al. ***POSTER LOCATION #369***
*VISTA Instrument: A Miniaturized Thermogravimeter Concept for Volatiles and Dust Characterization in Planetary Environments* **[#2835]**
This work is based on VISTA, a μ-Thermogravimeter device based on PCM technology. VISTA concept, applications, and measurements are explained in detail.

Sarrazin P. C. Blake D. F. Gailhanou M. Chen J. Dera P. et al. ***POSTER LOCATION #370***
*New Development in X-Ray Diffraction for Planetary Exploration* **[#2554]**
This presentation covers the main R&D efforts at NASA ARC toward future planetary X-ray diffraction instruments.