Tuesday, March 20, 2018 [T337]
POSTER SESSION I: PLANETARY SCIENCE DEEP SPACE STUDIES (PSDS3) SMALLSAT CONCEPTS
6:00 p.m. Town Center Exhibit Area

Komjathy A. Didion A. Sutin B. Nakazono B. Karp A. et al. ***POSTER LOCATION #567***
Remote Sensing of Seismic Activity on Venus Using a Small Spacecraft: Initial Modeling Results **[#1731]**
VAMOS mission concept will measure atmospheric perturbations from an orbiting platform that could provide a breakthrough in detecting seismicity on Venus.

Cottini V. Aslam S. Gorius N. Hewagama T. Glaze L. et al. ***POSTER LOCATION #568***
CUVE — CubeSat UV Experiment: Unveil Venus' UV absorber with CubeSat UV Mapping Spectrometer **[#1261]**
The mission concept Cubesat UV Experiment (CUVE) is to insert a CubeSat spacecraft into a Venusian orbit to study absorbers present in the UV region.

Kremic T. Ghail R. Gilmore M. Kiefer W. Limaye S. et al. ***POSTER LOCATION #569***
SAEVe: A Concept Study for a Long Duration Small Sat Class Venus Lander **[#2744]**
SAEVe is an innovative long duration Venus mission concept selected under the PSDS3 call. It will obtain key seismic and atmospheric data over a Venus day.

Sotin C. Avice G. Baker J. Freeman A. Madzunkov S. et al. ***POSTER LOCATION #570***
Cupid's Arrow: A Small Satellite Concept to Measure Noble Gases in Venus' Atmosphere **[#1763]**
Cupid's Arrow is a small probe that would measure the amount of noble gases in Venus' atmosphere below the homopause, providing information on Venus' evolution.

Draper D. S. Stopar J. D. Lawrence S. J. Denevi B. John K. et al. ***POSTER LOCATION #571***
The Irregular Mare Patch Exploration Lander (IMPEL) SmallSat Mission Concept **[#1617]**
Could it be that this / Irregular mare patch / Is really quite young?

Hibbitts C. A. Clyde B. Blewett D. Brandt P. Burke L. et al. ***POSTER LOCATION #572***
The Lunar WATER Mission: A PSDS3 Feasibility Study of a Solar-Electric Propulsion Small Sat Mission to Characterize the Water on the Moon **[#1748]**
We have studied under PSDS3 funding the feasibility of an 18 to 24 month SEP small sat mission to characterize the water on the surface of the Moon.

Petro N. E. Mazarico E. Sun X. Abshire J. Neumann G. et al. ***POSTER LOCATION #573***
MiLuV Does It Good — The Mini Lunar Volatiles Mission: A Planetary Science Deep Space Smallsat Study of a Lunar Orbiting Mission **[#2655]**
Lunar volatiles are an important, and complex, topic of planetary science. We propose a mission, MiLuV, to measure lunar water with active laser spectroscopy.

Hong J. Romaine S. Nittler L. Kring D. Petro N. et al. ***POSTER LOCATION #574***
CubeSat X-Ray Telescope (CubeX) for Lunar Elemental Abundance Mapping and Millisecond X-Ray Pulsar Navigation **[#2793]**
CubeSat X-ray telescope maps elemental abundance of lunar crust and mantle materials excavated by impact craters, and conducts autonomous navigation using X-ray pulsars.

Stubbs T. J. Malphrus B. K. Hoyt R. Mesarch M. A. Tsay M. et al. ***POSTER LOCATION #575***
Bi-Sat Observations of the Lunar Atmosphere Above Swirls (BOLAS): Tethered SmallSat Investigation of Hydration and Space Weathering Processes at the Moon **[#2394]**
A tethered SmallSat mission to investigate the lunar hydrogen cycle by making repeated low altitude measurements above the Gerasimovich magnetic anomaly.

Hewagama T. Aslam S. Clark P. Daly M. Feaga L. et al. ***POSTER LOCATION #576***
Primitive Object Volatile Explorer (PrOVE) — Waypoints and Opportunistic Deep Space Missions to Comets **[#2800]**
PrOVE is a CubeSat mission concept to study surface structure and volatile inventory of dynamically new and Jupiter family comets in perihelion passage.

Plescia J. B. Barnouin O. Paul M. Schmerr N. Richardson D. C. et al. ***POSTER LOCATION #577***
APEX: Asteroid Probe Experiment Mission **[#1999]**
APEX will rendezvous with the Apophis to determine size, shape, and rotation; map the surface; and examine the tidal effect of close encounter with the Earth.

Schmerr N. C. Lekic V. Mautino A. Plescia J. B. Paul M. et al. ***POSTER LOCATION #578***
The Asteroid Probe Experiment (APEX): Seismology at 99942 Apophis **[#2467]**
Waves bouncing around / Apophis passing by Earth / How does it deform?

Cook A. M. Colaprete A. Mauro D. Dono-Perez A. Mayer D. J. et al. ***POSTER LOCATION #579***
Aeolus: A Mission to Study the Winds and Climate of Mars **[#2634]**
Aeolus is a mission to measure the winds and climate of Mars, by measuring surface and atmospheric temps, aerosol abundances, and shifts in atmospheric lines.

Lillis R. J. Curry S. M. Larson D. E. Russell C. T. Brain D. A. et al. ***POSTER LOCATION #580***
Mars Ion and Sputtering Escape Network (MISEN) **[#1133]**
MISEN is a three-satellite constellation to map the real-time response of both sputtering and ion escape from Mars to changes in solar wind conditions.

Minton D. A. Spencer D. Horgan B. Putnam Z. Puig-Suari J. et al. ***POSTER LOCATION #581***
Chariot to the Moons of Mars **[#2358]**
Fear and terror wait / A tiny chariot flies / To see their secrets.

Montabone L. VanWoerkom M. Cantor B. Wolff M. J.
Capderou M. et al. ***POSTER LOCATION #582***
Mars Aerosol Tracker (MAT): An Areostationary CubeSat to Monitor Dust Storms and Water Ice Clouds **[#2597]**
We have elaborated a mission concept to put a 12U CubeSat in an areostationary orbit around Mars, to monitor the dynamics of dust storms and water ice clouds.

Ebert R. W. Allegrini F. Bagenal F. Beebe C. Dayeh M. A. et al. ***POSTER LOCATION #583***
JUpiter MagnetosPheric boundary ExploreR (JUMPER) **[#1284]**
JUMPER is a SmallSat mission focused on the solar wind's interaction with, and the contribution of neutral atoms to mass loss from, Jupiter's space environment.

Sayanagi K. M. Dillman R. A. Atkinson D. H. Li J. Saikia S. et al. ***POSTER LOCATION #584***
Small Next-Generation Atmospheric Probe (SNAP) Concept for Ice Giant Missions **[#2262]**
We present a mission concept design for a small atmospheric entry probe to be added to a future flagship mission to Uranus. The NASA PSDS3 Program funded the study.