Assuming that we Return some samples from Mars/What will we do then?

Siegler M. A., Smrekar S. E., Piqueux S., Muller N., Grott M., et al.

Three-Dimensional Thermal Modeling for the 2016 InSight Mission

In anticipation of the InSight HP³ measurements, we are developing a series of 3-D thermal models to aid in interpretation of this unique dataset.


Application of the Fleet of Micro Sized Space-Motherships (MSSM) with Nano, Pico Space Devices and Robots (NPSDR) for Life Signal Search on DDS Sites Using Global Digital Dune Database of Mars

Using the Mars Digital Dune Database we propose application of nano/micro devices equipped with biosignal sensors to search on DDS sites of southern polar Mars.

Jain N. S., Singh R., Kaur P., Chauhan P., Kiran Kumar A. S.

Morphometry of Arsia Mons by Mars Orbiter Mission-Mars Color Camera (MOM-MCC) Data

Morphometry and geomorphology of Arsia Mons by Mars Orbiter Mission-Mars Color Camera (MOM-MCC) data.

Ramsley K. R., Head J. W.

Exploring Mars with Micro-UAV Squadrons and High Data Rate Communications

24 UAVs are inserted to sites on Mars. A laser link satellite, plus radio data relay stations, establish a global 120 megabits/s Mars-to-Earth data-relay system.


MOMA Gas Chromatograph-Mass Spectrometer Onboard the 2018 ExoMars Mission: Prototype Results and Performances

MOMA instrumentation is a GCMS that enables characterization of a broad range of compounds allowing chemical analyses of volatile and non-volatile species.

Hays L. E., Beaty D. W., Shotwell R., Mattingly R.

Potential Strategies for Making Organic Measurements in Returned Martian Samples of Relevance to Science and Planetary Protection

Mars returned samples/What and how to measure them/And what could it mean?

Beaty D. W., Hays L. E., Parrish J., Whetsel C.

Caching Scenarios for the Mars 2020 Rover, and Possible Implications for the Science of Potential Mars Sample Return

Implications of alternative caching options on sample quality — both individually and as a collection — and restrictions on rover operations.

Bergman D., Zacny K., Davé A., Paulsen G., Glass B. J.

Icebreaker Drill Cuttings Size Analysis from Mars Analog Icy-Soils

This paper studies the filtering necessary for the Icebreaker mission using sieves to characterize Mars analog soils. Tests are performed at Mars conditions.
Murchie S. L.  Chabot N. L.  Castillo-Rogez J. C.
Arvidson R. E.  Buczkowski D. L.  et al.

POSTER LOCATION #602

*The Mars-Moons Exploration, Reconnaissance and Landed Investigation* [#2047]
Mars-Moons Exploration, Reconnaissance and Landed Investigation (MERLIN) is a proposal for a Discovery mission to explore Mars’ moons and land on Phobos.

Raymond C. A.  Prettyman T. H.  DIniega S.

POSTER LOCATION #603

*PANDORA — Unlocking the Mysteries of the Moons of Mars* [#2792]
A mission to Phobos and Deimos can reveal their origin and constrain Mars’ accretionary environment.

Lee P.  Benna M.  Britt D.  Colaprete A.  Davis W.  et al.

POSTER LOCATION #604

*PADME (Phobos and Deimos and Mars Environment): A Proposed NASA Discovery Mission to Investigate the Two Moons of Mars* [#2856]
PADME is a proposed NASA Discovery mission to investigate the origin of two remarkable and enigmatic small bodies, Phobos and Deimos, the two moons of Mars.