Opportunity Title: Mars Atmospheric Data Analysis and Modelling
Opportunity Reference Code: 0008-NPP-NOV23-JPL-PlanetSci

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0008-NPP-NOV23-JPL-PlanetSci

Application Deadline 11/1/2023 6:00:59 PM Eastern Time Zone

Description The successful post-doc will participate in a program which focuses on understanding the Martian atmosphere, its variability, and its interaction with the surface through observing and/or modeling its primary traceable constituents, water vapor, water-ice and dust, and observing or modeling related surface features. The post-doc will be expected to analyze and synthesize data from Mars orbiters and landers and/or conduct relevant modeling studies. The primary goals of this program include gaining insight into (1) the character of and changes in the atmosphere on diurnal, seasonal, interannual, and longer timescales, (2) the current climate regime, its history and evolution, and (3) the nature of the water cycle and its relationship to long term sources and sinks. Thus, the post-doc would likely conduct a combination of modeling studies and data analyses, possibly including modeling climate evolution. Any modeling studies would be constrained by and validated against appropriate existing data that the post-doc would analyze. Data analysis projects would be used to examine and compare data sets to search for trends and differences spatially and temporally.

Examples of recent work:

Tamppari, L. K., and M. T. Lemmon, 2020. Near-Surface atmospheric water vapor enhancement at Phoenix, Icarus, 343, 113624, https://doi.org/10.1016/j.icarus.2020.113624

Savijärvi, H. I., G. M. Martinez, E. Fischer, N. O. Renno, L. K. Tamppari, A. Zent, and A.-M. Harri, 2020. Humidity observations and column simulations for a warm period at the Mars Phoenix lander site: constraining the adsorptive properties of regolith, Icarus,343, 113688, DOI: https://doi.org/10.1016/j.icarus.2020.113688

Location:
Jet Propulsion Laboratory
Pasadena, California

Field of Science: Planetary Science

Advisors:
Leslie Tamppari
Leslie.K.Tamppari@jpl.nasa.gov
818-393-1226

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Applications with citizens from Designated Countries will not be accepted at this time, unless they are Legal Permanent Residents of the United States. A complete list of Designated Countries can be found at: https://www.nasa.gov/oiir/export-control.

Eligibility is currently open to:

- U.S. Citizens;
- U.S. Lawful Permanent Residents (LPR);
- Foreign Nationals eligible for an Exchange Visitor J-1 visa status; and,
- Applicants for LPR, asylees, or refugees in the U.S. at the time of application with 1) a valid EAD card and 2) I-485 or I-589 forms in pending status

Eligibility Requirements

- **Degree:** Doctoral Degree.