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Opportunity Title: Tectonics and Evolution of the Terrestrial Planets
Opportunity Reference Code: 0039-NPP-MAR26-JPL-PlanetSci

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0039-NPP-MAR26-JPL-PlanetSci

How to Apply All applications must be submitted in Zintellect

Please visit the NASA Postdoctoral Program website for application instructions and requirements: How to Apply | NASA Postdoctoral Program (orau.org)

A complete application to the NASA Postdoctoral Program includes:

1. Research proposal
2. Three letters of recommendation
3. Official doctoral transcript documents

Application Deadline 3/1/2026 6:00:59 PM Eastern Time Zone

Description **About the NASA Postdoctoral Program**

The NASA Postdoctoral Program (NPP) offers unique research opportunities to highly-talented scientists to engage in ongoing NASA research projects at a NASA Center, NASA Headquarters, or at a NASA-affiliated research institute. These one- to three-year fellowships are competitive and are designed to advance NASA's missions in space science, Earth science, aeronautics, space operations, exploration systems, and astrobiology.

Description:

Earth-like planets, including exoplanets. This research will contribute to understanding planetary evolution and habitability by examining the links between interior, surface, and atmospheric evolution. Specific topics include modeling of the following processes:
> factors that influence heat flow such as crustal and elastic thickness, volcanic history, and near surface thermal properties.
> Interior thermal evolution and the role of mantle plumes on affecting surface geology and volatile evolution.
> Tectonic processes that provides constraints on thermal evolution, such as rifting
> Surface processes that provide constraints on the history of resurfacing on Venus, including possible signatures of climate change.
Modeling approaches include analytic and numerical methods. Model constraints come from data analysis of gravity, topography, radar, imaging, and surface temperature data.

Smrekar, S.E. and Sotin, C., Constraints on mantle plumes on Venus: Implications for volcanism and volatile history, Icarus, doi:10.1016/j.icarus.2011.09.011, 2012. Smrekar, S.E., E.R. Stofan, N. Mueller, A. Treiman, L. Elkins-Tanton, J. Helbert, G. Piccioni, and P. Drossart

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Location:
Jet Propulsion Laboratory
Pasadena, California

Field of Science: Planetary Science

Advisors:
Sue Smrekar
suzanne.e.smrekar@jpl.nasa.gov
818-354-4192

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

Questions about this opportunity? Please email npp@orau.org

Point of Contact Mikeala

Eligibility Requirements

- **Degree:** Doctoral Degree.