

Opportunity Title: Planetary Mapping and Robotic Exploration of Mars

Opportunity Reference Code: 0041-NPP-NOV23-JPL-PlanetSci

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0041-NPP-NOV23-JPL-PlanetSci

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

Description An opportunity exists for research in one of two general areas: 1) Planetary mapping and tectonic evolution of Mars. The tectonic history of a planet is recorded in the distribution and relative age of extensional and compressional features on its surface. We have compiled a paleotectonic map of Mars to determine centers of tectonic activity. Research in this area can be regionally focused with the existing data, or could extend the technique with further comprehensive mapping.

References: Anderson, R. C. et al., Tectonic Histories between Alba Patera and Syria Planum, Mars, Icarus, 171, 31-38, 2004. Anderson, R.C. et al., Significant Centers of Tectonic Activity through Time for the Western Hemisphere of Mars, JGR, 106(E6), 12301-12314, 2001.

2) Planetary robotic geology and the search for habitable environments and water on planetary surfaces. We develop new instrument techniques for planetary exploration, and in particular for in-situ measurements of hydration, geochemical, and petrologic indicators. This research is both science-driven and technology focused.

References: Paul B. Willis, et al., Miniaturized In-Situ Petrograph for Mineralogical Analysis, 2004 IEEE Aerospace Conference Proceedings, 8-pages. Buehler, M. G., et al., Prospecting for In-Situ Resources on the Moon and Mars Using Wheel-Based Sensors, 2004 IEEE Aerospace Conference Proceedings, #5123, 10-pages.

Location:

Jet Propulsion Laboratory
Pasadena, California

Field of Science: Planetary Science

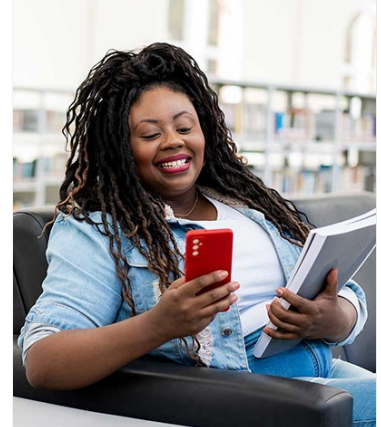
Advisors:

Robert Anderson
Robert.C.Anderson@jpl.nasa.gov
818 393-1253

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,



Whether you are just starting your career or already at a senior level, ORAU offers internships, fellowships, research opportunities, and contract positions that can provide you with invaluable experience. Download the ORAU Pathfinder mobile app and find the right opportunity to propel you along your career path!

Visit ORAU Pathfinder [↗](#)



Opportunity Title: Planetary Mapping and Robotic Exploration of Mars

Opportunity Reference Code: 0041-NPP-NOV23-JPL-PlanetSci

- 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.