Opportunity Title: Thermophysical properties of lunar landforms and candidate landing sites
Opportunity Reference Code: 0351-NPP-NOV26-JPL-PlanetSci

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0351-NPP-NOV26-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 11/1/2026 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:

The research is anticipated to involve using thermal modeling and infrared observations from the Diviner Lunar Radiometer Experiment to investigate the physical properties of geologic landforms and potential landing sites on the Moon. Coherent rock has a higher thermal inertia than fine-grained regolith, meaning it cools more slowly during the lunar night. Observing infrared radiance at multiple wavelengths enables the derivation of the fractional surface coverage of coherent rock. Thermal modeling can also reveal spatial variability in the density of the fine-grained regolith. These physical properties can be used to constrain the origin and evolution of a variety of geologic landforms across the Moon including volcanic domes, scarps and ridges, and impact craters. These same properties (rock abundance and regolith density) along with surface temperature can be used to characterize and assess the safety of potential landing sites with relevance to future lunar missions and programs such as Artemis, PRISM/CLPS, MoonFall, and Moon Base. This research opportunity is open to proposals that use Diviner observations to advance our understanding of lunar geology and assess landing sites for future missions.

Field of Science: Planetary Science

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NPP NASA Postdoctoral Program
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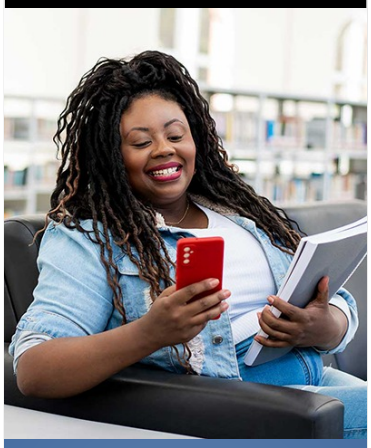

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Applications with citizens from Designated Countries will not be accepted at this time, unless they are Legal Permanent Residents of the United States. A complete list of Designated Countries can be found at: https://www.nasa.gov/oiir/export-control.

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

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

Eligibility Requirements

- **Degree:** Doctoral Degree.