

Opportunity Title: Lunar and Planetary Science: Geophysics and Interiors

Opportunity Reference Code: 0015-NPP-NOV23-MSFC-PlanetSci

Organization National Aeronautics and Space Administration (NASA)

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

Description In order to advance our knowledge on the formation and evolution of planetary bodies, a detailed picture of their interiors is required. While a variety of geophysical data have been collected for many terrestrial bodies in our solar system, seismic recordings offer the most detailed information on their interior structure. Up until InSight landed and deployed its instruments on Mars in 2018, the Moon was the only body besides the Earth for which we had seismic recordings. Magnetometer data at the surface or from orbit can also be used to learn about conducting layers within the interior. Analysis of seismic and electromagnetic data from both Apollo and InSight continues to reveal new information on the interiors of the Moon and Mars, including the structure of the crust, the state of the mantle, and the presence of a core. However, considerable uncertainties remain as to their overall internal structure. With the goal of supporting next-generation geophysical investigations to the Moon, Mars, and the icy satellites of the outer Solar System in mind, we welcome solicitations of original research in the fields of planetary geophysics, including (but not limited to): Apollo and InSight seismic or electromagnetic data analyses, theoretical waveform modeling, equations of state modeling, shallow and deep structure determination, surface image analysis as it relates to seismology and tectonism, and modeling in support of site selection and science return for future planetary geophysical missions.

Location:

Marshall Space Flight Center
Huntsville, Alabama

Field of Science: Planetary Science

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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>.



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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.