

**Opportunity Title:** Illumination Conditions and Thermal Environment across the Solar System

**Opportunity Reference Code:** 0250-NPP-NOV23-GSFC-PlanetSci

### Organization

National Aeronautics and Space Administration (NASA)

### Reference Code

0250-NPP-NOV23-GSFC-PlanetSci

### How to Apply

All applications must be submitted in [Zintellect](#)

### Application Deadline

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

### Description

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This opportunity is to conduct research on a variety of planetary science topics, with the central theme of illumination conditions and thermal environment. With a raytracing software, the illumination conditions on various targets can be computed and used for example to determine areas of permanent shadow. With more complex simulation capabilities, other possible research topics include the modeling of exact observation geometry to improve instrument calibration and data analysis (e.g., Mercury ground-based radar, MESSENGER/MLA, LRO/LOLA, LRO/LEND, LRO/LAMP), the study of the thermal environment on the Moon, Mercury, and Ceres. Projects related to the study of volatiles cold-trapped in polar craters are encouraged. Also of interest are small bodies such as 67P/Churyumov-Gerasimenko and Bennu.

Candidates should have an engineering or science Ph.D. in a relevant field and have experience with instrument data analysis and modeling. The selected candidate will be fully integrated into the planetary geodesy group of the Solar System Exploration Division at NASA GSFC. Please contact advisor for further information.

**Field of Science:** Planetary Science

### Advisors:

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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/oiiir/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.

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# NPP

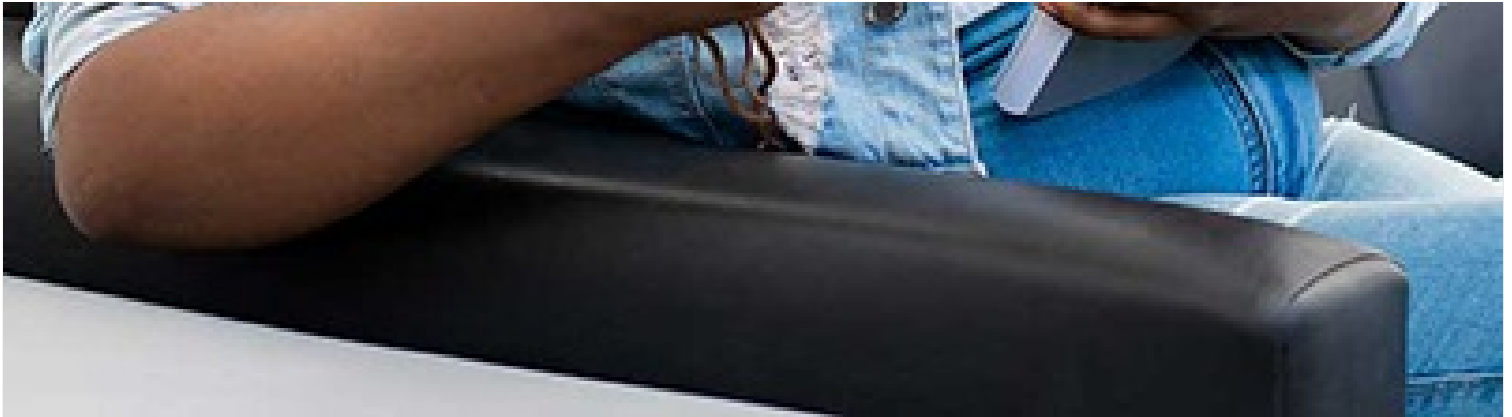
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