

**Opportunity Title:** Solar System Exploration: Planetary Physics, Comets, and Solar Wind

**Opportunity Reference Code:** 0064-NPP-NOV23-GSFC-PlanetSci

**Organization** National Aeronautics and Space Administration (NASA)

**Reference Code** 0064-NPP-NOV23-GSFC-PlanetSci

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

**Description** Research includes ongoing studies of Io and Io Torus, particularly time-variable phenomena. These programs also focus on aurorae on gas giants. Searches are underway for planetary bodies the orbit of Pluto.

Cometary research emphasizes the interaction of bright comets (such as Halley) with the solar wind and interplanetary magnetic field, interpreting ion structures in the comet seen in wide-angle images of the tail, and narrow-field images of the ion coma and spectra. We are also interested in what solar-wind/IMF conditions initiate the formation of transient structures in the cometary tails, where in the comet the seat of the initial disturbance resides (e.g., sunward comma, inner ion tail), and what specific instability mechanism is involved. Structures important to probe in this manner are disconnection events, folding ion tail rays, and propagating helical waves.

**Location:**

Goddard Space Flight Center  
Greenbelt, Maryland

**Field of Science:** Planetary Science

**Advisors:**

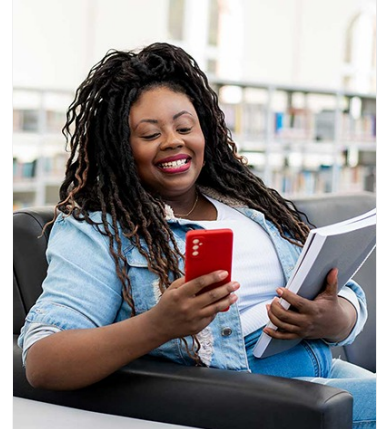
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**Applications with citizens from Designated Countries will not be accepted at this time, unless they are Legal Permanent Residents of the United States.** A complete list of Designated Countries can be found at: <https://www.nasa.gov/oiir/export-control>.

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

**Eligibility Requirements** • **Degree:** Doctoral Degree.



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