

Opportunity Title: Solar System Exploration: Tidal Dynamics

Opportunity Reference Code: 0112-NPP-NOV23-GSFC-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 The objective of this position is to conduct research on tidally driven processes operating on solar system bodies. Tides influence the orbital evolutions, thermal evolutions, rotation dynamics and surface geology on many bodies, especially icy satellites in the outer solar system. Two bodies of special interest are the icy satellites, Europa and Enceladus. On Enceladus for example, diurnal tidal shear stress may drive heating along fractures on Enceladus while tides may also open and close these cracks, allowing observed eruptions to occur. In the case of Europa, many fractures on its surface have been linked to diurnal tensile stress. Identification of tidally controlled geology also provides constraints on the internal structure of these bodies, specifically the likelihood of subsurface oceans.

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/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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