

Opportunity Title: Icy Moon Interiors and Geophysical Signatures

Opportunity Reference Code: 0256-NPP-NOV23-JPL-PlanetSci

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0256-NPP-NOV23-JPL-PlanetSci

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

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

Description Description:

Icy moons and dwarf planets in our solar systems are of significant scientific importance because they could host liquid environments that may be habitable for life. Several missions in development (NASA's Europa Clipper, ESA's JUperiter ICy moons Explorer) and prioritized in the Origins, World, and Life (OWL) decadal report target these bodies (Uranus Orbiter and Probe, Ceres Sample Return, Titan Orbiter, Triton Ocean World Explorer, Enceladus flyby and in situ). In order to support the interpretation of future datasets returned by these missions, it is necessary to develop more refined models of their interior structure. Compositional and thermomechanical profiles may be derived from geophysical parameters such as the body's static gravity field, tidal response, induced magnetic field, surface composition, topography, and geology. The combination of several datasets would increase the robustness of the inversion.

This project is open to proposals that introduce innovative techniques to predict the geophysical expressions of icy moon and dwarf planet interior properties with application to targets highlighted in the OWL decadal report, as well as the Galilean satellites in the context of Europa Clipper and JUICE.

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



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