

**Opportunity Title:** Science of Water in the Universe

**Opportunity Reference Code:** 0217-NPP-NOV23-JPL-Astrophys

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

**Reference Code** 0217-NPP-NOV23-JPL-Astrophys

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

**Description** The Jet Propulsion Laboratory has undertaken a multi-year study of water in the Solar System (focusing on physical and chemical processes in cometary atmospheres) and in astrophysical environments (galaxies, molecular clouds, disks, and exoplanet atmospheres). This undertaking involves observations, data analysis, laboratory experiments, and modeling (chemistry and transport) of water molecules, and measurements of isotopic ratios (in particular D/H in water). These studies are especially relevant to the delivery of water to form Earth's oceans, the origin of the Solar System and of disks and extrasolar planets, as well as the evolution of water distributions in molecular clouds and galaxies. Relevant observations include ground-based spectroscopy, observations using SOFIA and JWST, and will lead to possible JPL proposals for space-based missions. The successful applicant will work at the forefront of observational, theoretical, or laboratory astrophysics, including observations and their interpretation, chemical modeling of the early Solar System and other solar systems and disks, as well as other astrophysical environments. The successful applicant is expected to lead the publication of results and to develop science cases for proposing observations or modeling efforts and will be encouraged and facilitated to engage with relevant mission formulation and mission concept studies.

The postdoctoral researcher will benefit from a multi-disciplinary and collegiate environment offered by JPL, with its vigorous science community (Earth, Planetary, Astrophysics) and mission and technology activities.

Applicants with observational, laboratory astrophysics, modeling, theoretical and computational expertise in any areas of investigation within the topics described above are encouraged to apply.

**Location:**

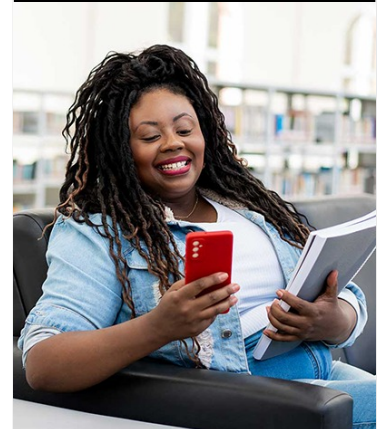
Jet Propulsion Laboratory  
Pasadena, California

**Field of Science:** Astrophysics

**Advisors:**

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**Applications with citizens from Designated Countries will not be**



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**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.