

**Opportunity Title:** Understanding Climate Processes from Observations with JPL Instruments

**Opportunity Reference Code:** 0034-NPP-NOV23-JPL-EarthSci

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

**Reference Code** 0034-NPP-NOV23-JPL-EarthSci

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

**Description** JPL has developed several instruments which are collecting data to improve our current understanding of the Earth's climate processes. Some examples are Global Positioning System (GPS) radio-occultations (COSMIC), AIRS, or CLOUDSAT which are expected to shed new light on major questions about the Earth's climate dynamics. The purpose of this opportunity is to exploit the data types provided, not only but mainly, by any combination of JPL instruments to address any of the major open questions in climate processes identified by the IPCC and the WMO . Encouraged research areas stress the spatio-temporal dynamics of the fine-scale vertical structure of the atmosphere. Specific examples are the analysis of observed tropopause processes and their connection to troposphere-stratosphere exchange, boundary layer dynamics and its relation to convective phenomena, gravity wave dynamics and their relation to sudden stratospheric warmings at the poles, the vertical structure of planetary waves, and their role in climate processes. We are also interested in connections between the stratosphere, troposphere, and the hydrological cycle.

**Location:**

Jet Propulsion Laboratory  
Pasadena, California

**Field of Science:**Earth 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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