

**Opportunity Title:** Aerosol and Cloud Variabilities and their Impacts on Climate and Air Quality

Opportunity Reference Code: 0075-NPP-NOV23-JPL-EarthSci

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0075-NPP-NOV23-JPL-EarthSci

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

**Description** Clouds play critical roles in Earth's climate and weather systems. Understanding interactions among clouds, aerosols and dynamics in the systems has been an active research area, requiring some well-thought observational and modeling strategies to disentangle all coupled processes In our research at JPL we apply satellite remote sensing techniques to making global observations of cloud and aerosol properties, and investigate morphology and variability of these measurements in relation to other atmospheric variables. In particular, we study aerosol-cloud-precipitation problems by analyzing the multi-year observations from the instruments such as Muti-angle Imaging SpectroRadiometer (MISR), Microwave Limb Sounder (MLS), Atmosphere Infrared Sounder (AIRS), CloudSat, and Moderate Resolution Imaging Spectroradiometer (MODIS). At global scales we are interested primarily in impacts of aerosol-cloud variabilities on climate and climate change. At regional scales our research focuses on air quality issues associated with pollution aerosols and cloud/dynamical processes in the atmospheric boundary layer.

## 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: <u>https://www.nasa.gov/oiir/export-control</u>.

Eligibility is currently open to:

- U.S. Citizens;
- U.S. Lawful Permanent Residents (LPR);

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- 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 • Degree: Doctoral Degree. Requirements