

Opportunity Title: Laser Remote Sensing of the Earth Atmosphere **Opportunity Reference Code:** 0052-NPP-NOV23-JPL-EarthSci

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0052-NPP-NOV23-JPL-EarthSci

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

Description The JPL atmospheric lidar group led by Dr. Thierry Leblanc at the JPL Table Mountain Facility (TMF) has been performing long-term measurements of stratospheric ozone, temperature, and aerosols since 1988. These measurements are complemented by tropospheric ozone measurements obtained since 1999 and water vapor since 2005. Another stratospheric ozone/aerosol/temperature lidar system has operated since 1993 at the Mauna Loa Observatory, HI.

The results from the above lidars contribute to validating satellite measurements [1], and understanding variability and changes in atmospheric composition at mid- and subtropical latitudes at time scales ranging from synoptic to multi-decadal [2]. Postdoctoral fellows' tasks in our group are centered on two aspects: instrumental and scientific.

One aspect is to help in the design, implementation and optimization of current and future lidar systems. The second aspect is to use our lidar data to perform long-term variability studies of atmospheric ozone, temperature, aerosols, and water vapor. Atmospheric composition studies using co-located instrumentation at TMF, and studies of atmospheric composition in the Upper Tropopshere Lower Stratosphere (UTLS) are the TMF lidar group's other priorities, in line with NASA's current science goals. They will likely be the primary research topics targeted by our group when recruiting future postdoctoral fellows.

Location:

Jet Propulsion Laboratory Pasadena, California

Field of Science: Earth Science

Advisors: Thierry Leblanc Thierry.Leblanc@jpl.nasa.gov (760) 249-1070

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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>.



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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

This opportunity may require the following: 1- Mandatory drug testing; 2-Random drug testing; 3- Testing prior to initiation of fellowship appointment.

Eligibility • Degree: Doctoral Degree. Requirements