

**Opportunity Title:** Linking Aerosol Measurements to Modeling Efforts

**Opportunity Reference Code:** 0041-NPP-NOV23-LRC-EarthSci

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

**Reference Code** 0041-NPP-NOV23-LRC-EarthSci

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

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

**Description Description:**

This research opportunity focuses on linking aerosol measurements to modeling efforts. The Models, In situ, and Remote sensing of Aerosols (MIRA) is an international working group of 200+ members in 22 countries that brings worldwide expertise from all of these elements together and facilitates collaborative work within the atmospheric aerosol specialty (<https://science.larc.nasa.gov/mira-wg/>). One NASA project within the MIRA working group is the Table of Aerosol Optics (TAO; <https://science.larc.nasa.gov/mira-wg/projects/tao/>). TAO is a new community effort that links all of the aerosol specialties together by applying single-scatter computations to representative measurements for climate model and remote sensing applications. TAO updates the aerosol tables in [Shettle and Fenn \(1979\)](#) and [Hess et al. \(1998\)](#) with computations that are based upon recent measurements, and TAO will use an open data repository to allow community contributions and the dynamic evolution of contents. The TAO team at NASA Langley Research Center is seeking post-doctoral candidates interested in science research topics that leverage MIRA and TAO efforts and advance the linking of aerosol measurements and modeling capabilities.

**References**

Hess, M., P. Koepke, and I. Schult (1998), Optical Properties of Aerosols and Clouds: The Software Package OPAC, *Bull. Am. Meteorol. Soc.*, 79 (5), 831–844.

Shettle, E., and R. Fenn (1979), Models for the aerosols of the lower atmosphere and the effects of humidity on their optical properties, *Tech. Rep. AFGL-TR-790214*, Air Force Geophysics Laboratory.

**Field of Science:** Earth Science

**Advisors:**

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Eligibility is currently open to:

- U.S. Citizens;



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- 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.