

**Opportunity Title:** Research and Development on Atmospheric Aerosols Datasets  
in support of AERONET program

**Opportunity Reference Code:** 0268-NPP-NOV23-GSFC-EarthSci

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

**Reference Code** 0268-NPP-NOV23-GSFC-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:**

The AERONET ([AErosol RObotic NETwork](#)) program is a federation of ground-based remote sensing aerosol networks established by [NASA](#) and [PHOTONS](#) (PHOtométrie pour le Traitement Opérationnel de Normalisation Satellitaire; [Univ. of Lille 1](#), [CNES](#), and [CNRS-INSU](#)) and is greatly expanded by networks (e.g., [RIMA](#), [AeroSpan](#), [AEROCAN](#), [NEON](#), and [CARSNET](#)) and [collaborators](#) from national agencies, institutes, universities, individual scientists, and partners. For almost 30 years, the project has provided long-term, continuous, and readily accessible public domain database of aerosol optical, microphysical and radiative properties for aerosol research and characterization, validation of satellite retrievals, and synergism with other databases. The network imposes standardization of [instruments](#), [calibration](#), [processing](#), and [distribution](#).

AERONET data have been extensively used in atmospheric aerosol research, air quality, and climate applications and required continuous innovation in improving the accuracies of existing datasets and developing new datasets. This opportunity is for candidates interested in performing research using AERONET measurements, developing cloud mask algorithms, evaluating and comparing AERONET products with other ground measurements, standardizing data formats, and developing new data applications. The use of modern technologies such as machine and deep learning methods, data fusion approaches, and cloud computing is highly encouraged in research and development.

A successful candidate should have a degree in one of the following STEM fields Earth or/and Atmospheric sciences, Computer Science, Mathematics, Physics, or Meteorology, and have advanced programming skills working with big data (e.g. Python, C, etc.).

**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/oair/export-control>.



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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

**Eligibility Requirements** • **Degree:** Doctoral Degree.