

**Opportunity Title:** Optical Remote Sensing Observation of Aerosol and Clouds from Ground-based, Airborne, and Space-borne Passive and Active instruments

**Opportunity Reference Code:** 0292-NPP-NOV24-GSFC-EarthSci

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

**Reference Code** 0292-NPP-NOV24-GSFC-EarthSci

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

Please visit the NASA Postdoctoral Program website for application instructions and requirements: [How to Apply | NASA Postdoctoral Program \(orau.org\)](#).

A complete application to the NASA Postdoctoral Program includes:

1. Research proposal
2. Three letters of recommendation
3. Official doctoral transcript documents

**Application Deadline** 11/1/2024 6:00:59 PM Eastern Time Zone

**Description** About the [NASA Postdoctoral Program](#)

The [NASA Postdoctoral Program \(NPP\)](#) offers unique research opportunities to highly-talented U.S. and non-U.S. scientists to engage in ongoing NASA research projects at a NASA Center, NASA Headquarters, or at a NASA-affiliated research institute. These one- to three-year fellowships are competitive and are designed to advance NASA's missions in space science, Earth science, aeronautics, space operations, exploration systems, and astrobiology.

**Description:**

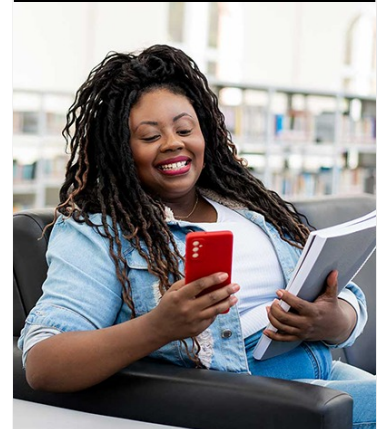
This research topic focuses on better understanding how atmospheric constituents such as aerosols, clouds, and trace gases affect the Earth's atmospheric composition, radiation balance, and climate change. Specific topics include: (1) studying the effects of aerosol and cloud variability on satellite-derived all-sky direct aerosol radiative effects, (2) combining different space-based sensors to perform profiling of the Earth's planetary boundary layer, (3) characterizing gas, chemical and optical characteristics of different aerosol types to improve model predictions. The investigations can be based on recent (e.g., CALIOP/CALIPSO), current (e.g., MODIS/AQUA) or upcoming (e.g., EarthCARE) satellite measurements, airborne measurements from field campaigns (e.g., NASA CAMP2EX, ARCSIX) or surface observations. Research involving machine learning techniques will be strongly encouraged.

**Field of Science:** Earth Science

**Advisors:**

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Kerry Meyer



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**Questions about this opportunity?** Please email [npp@oraui.org](mailto:npp@oraui.org)

**Qualifications** Preferred educational background is a completed PhD in Earth Sciences and more specifically in the Earth's atmosphere (e.g., aerosol, cloud, precipitation, boundary layer thermodynamics, traces gases).

Programming, independent analysis, writing, organizational and people skills are all considered favorable.

Machine learning experience would be a plus.

- Eligibility Requirements**
- **Citizenship:** LPR or U.S. Citizen
  - **Degree:** Doctoral Degree.