Opportunity Title: Assimilation of Satellite Radiance Observations
Opportunity Reference Code: 0273-NPP-MAR26-GSFC-EarthSci

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0273-NPP-MAR26-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 4/2/2026 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 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 opportunity is closed to applicants who are Senior Fellows (5-years or more past PhD).

The Goddard Earth Observing System (GEOS) global 4D hybrid Ensemble-Variational (EnVar) data assimilation system at Global Modeling and Data Assimilation Office (GMAO) has been supporting NASA research and Earth Science missions. Among the millions of observations assimilated at each analysis cycle in the GEOS system, satellite radiances play an important role in constraining atmospheric states and reducing model forecast errors. Traditionally only clear-sky radiances had been used in data assimilation systems due to limitations of model and radiative transfer models (RTM). However, the importance of including radiance data with fields of view (FOVs) affected by clouds and precipitation in a data assimilation system is obvious, as these data are usually associated with meteorologically important areas. With the advances of model microphysics and RTM, all-sky microwave radiance assimilation has been realized operationally in major NWP centers and GMAO, but all-sky infrared radiance assimilation is still in research stage. This NPP opportunity invites proposals that are focused on the usages of radiance observations to improve atmospheric states and model forecasts, especially, proposals with the following foci

- Exploration of methodology for all-sky geostationary or hyperspectral

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infrared radiance assimilation
- Enhancement of all-sky microwave radiance assimilation algorithm

are highly encouraged.

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/oiir/export-control. ?

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

Questions about this opportunity? Please email npp@orau.org

Point of Contact Mikeala

Eligibility Requirements
- **Degree:** Doctoral Degree.