

Opportunity Title: Earth Science: Data Assimilation for Earth Science

Opportunity Reference Code: 0019-NPP-JUL23-GSFC-EarthSci

Organization National Aeronautics and Space Administration (NASA)

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Application Deadline 7/1/2023 6:00:00 PM Eastern Time Zone

Description The Global Modeling and Assimilation Office (GMAO) supports the modeling and data assimilation needs of NASA's Earth science mission, to characterize, understand, and predict how the Earth as a system is changing on both weather and climate time scales. The GMAO develops the Goddard Earth Observing System (GEOS) model and data assimilation system, including comprehensive atmosphere, ocean, ice, and land surface components. Along with the analysis and prediction of weather and seasonal climate states, GMAO's efforts encompass atmospheric air quality, ocean biogeochemistry, and the carbon cycle. Potential research activities include:

- developing the underlying model components to improve the representations of processes and the coupling among different processes in the Earth system
- development of advanced modeling techniques based on Artificial Intelligence/Machine Learning
- developing and applying new techniques to assimilate NASA's Earth observations and assessing their impacts on prediction on timescales that span weather to seasons
- focused model experimentation to identify the mechanisms of change in the Earth system.

Location:

Goddard Space Flight Center
Greenbelt, Maryland

Field of Science: Earth Science

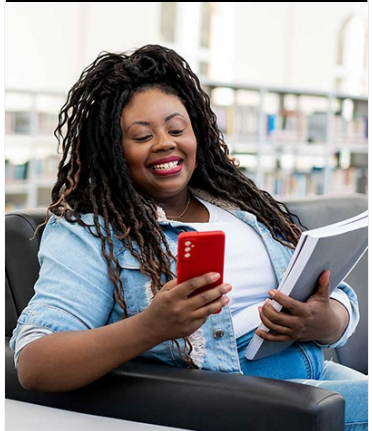
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Applications with citizens from Designated Countries will not be accepted at this time, unless they are Legal Permanent Residents of the United States. A complete list of Designated Countries can be found at: <https://www.nasa.gov/oiir/export-control>.

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

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