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Opportunity Title: Ocean Biogeochemical Modeling
Opportunity Reference Code: 0006-NPP-MAR26-GISS-EarthSci

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0006-NPP-MAR26-GISS-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 3/1/2026 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).

NASA's ocean carbon cycle and ecosystems research seeks to study the interactions of global biogeochemical cycles and aquatic ecosystems, assess global environmental change and describe the implications for Earth's climate, productivity, and natural resources. A research objective is to quantify global productivity, biomass, carbon fluxes and provide information about future changes in global carbon cycling in the aquatic ecosystems for use in ecological forecasting and as inputs for improved climate change projections. Research at the Goddard Institute for Space Studies (GISS) focuses on biogeochemical modeling of the oceanic component of the carbon cycle and uses satellite data both for model assessment and improvement. The NASA Ocean Biogeochemical model (NOBM) was developed at GSFC and is coupled with the GISS climate model. It simulates the ocean carbon cycle using phytoplankton groups differentiation.

Research proposals are encouraged in the areas of:

1) Physical-biogeochemical interactions and their impact on the ocean solubility and biological pump, and the global carbon cycle.

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2) Modeling phytoplankton size distribution and interfacing with taxonomic groups existing in NOBM to better estimate biomass regionally and project changes of biodiversity with climate change.

3) Modeling interactive dust-iron deposition in NOBM using prognostic fluxes predicted by the GISS climate model in order to characterize the dust pathways, the timing and magnitude of dust-iron deposition events, the regional and temporal variations of the biological pump stimulation and linking those to carbon export at the bottom of the euphotic zone.

Applicants should have experience in mathematical biology modeling, data analysis software and fortran. Preference will be given to candidates already familiar with NOBM.

Location:
Goddard Institute for Space Studies
New York City, New York

Field of Science: Earth Science

Advisors:

Anastasia Romanou
anastasia.romanou@nasa.gov
212-678-5520

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

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

Point of Contact Mikeala

Eligibility Requirements

- **Degree:** Doctoral Degree.