Opportunity Title: Climate studies through analyzing satellite observations and climate model simulations
Opportunity Reference Code: 0173-NPP-MAR26-JPL-EarthSci

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0173-NPP-MAR26-JPL-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:

The NPP scholar will perform climate studies through analyzing observations from the state-of-the-art satellite and reanalysis datasets (e.g., AIRS, CERES, GPM, ERA5, and MERRA-2) as well as climate model simulations from the latest phases of the Coupled Model Intercomparison Project (e.g., CMIP6). The scholar can pursue a wide range of research topics depending on his/her research interests. However, several possible research topics are listed below. How well do CMIP6 models simulate the historical climate in comparison to observations? Has the double-ITCZ bias been reduced in CMIP6 models in comparison to CMIP3 or CMIP5 models? Why does the double-ITCZ bias persist in CMIP models and how to reduce or remove it from the models? Why is there a spread of model climate sensitivity in CMIP6 models and how to constrain the model climate sensitivity using observations? How does the double-ITCZ bias influence model cloud feedback and climate sensitivity?

References:

Tian, B. (2015), Spread of model climate sensitivity linked to double-Intertropical Convergence Zone bias, Geophysical Research Letters, 42(10), 4133-4141, doi:10.1002/2015gl064119

Tian, B., & Dong, X. (2020), The double-ITCZ bias in CMIP3, CMIP5, and CMIP6 models based on annual mean precipitation, Geophys. Res. Lett.,

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Location:
Jet Propulsion Laboratory
Pasadena, California

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.