Opportunity Title: The EXoplanet Climate Infrared TElescope (EXCITE)
Experiment: Exoplanet atmospheric characterization from a high altitude balloon
Opportunity Reference Code: 0304-NPP-MAR26-GSFC-Astrophys

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0304-NPP-MAR26-GSFC-Astrophys

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 EXoplanet Climate Infrared TElescope (EXCITE) experiment is a 0.5m infrared spectrograph that flies from a high-altitude balloon. EXCITE's primary science mission is to perform phase-resolved spectroscopy of hot Jupiter-type exoplanets in the near-infrared. EXCITE is a moderate-sized international collaboration that partners governmental, academic, and private sector institutions in the United States, Canada, United Kingdom, and Italy. EXCITE flew its North American engineering flight in August 2024, and is next preparing for a science flight from the Antarctic. This opportunity will provide hands-on research experience in the preparation and deployment of the EXCITE payload, with topic areas including: infrared detectors and readout, cryogenics and cryocoolers, optics, data acquisition, balloon attitude control, science modeling, and science data analysis.

Field of Science: Astrophsyics

Advisors:

Peter Nagler
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(301) 286-2054

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

Qualifications The ideal candidate shall have a doctorate in physics/astrophysics, with specific experience in developing instrumentation for stratospheric balloon and/or space applications. The candidate shall have specialized experimental experience in at least one of the following topic areas: infrared detectors and readout, cryogenics and cryocoolers, infrared optics, balloon attitude control systems, exoplanet observational modeling, exoplanet observational data analysis. The candidate shall also have significant programming experience in a language such as Python, Matlab, or IDL. The ideal candidate will also be experienced in mechanical design, with proficiency in SolidWorks or equivalent.

Point of Contact Mikeala

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree.