Opportunity Title: Astrophysics with the Neutron Star Interior Composition Explorer (NICER)
Opportunity Reference Code: 0162-NPP-MAR26-GSFC-Astrophys

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0162-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:

?Neutron stars provide natural laboratories for the study of a number of important questions in fundamental physics, including the equation of state (EOS) and composition of ultra-dense matter. NASA's Neutron Star Interior Composition ExploreR (NICER) mission, operating on the International Space Station (ISS) since Summer 2017, is providing breakthrough capabilities for high throughput, fast X-ray timing and spectroscopy to probe the mysteries of neutron stars. NICER's key goals are to measure the mass and radius of neutron stars by pulse profile modeling of the soft X-ray emission from millisecond pulsars, and precision timing of accreting millisecond pulsars.
NICER will also enable mass - radius constraints from spectral modeling of the thermal emission from X-ray bursts, and make definitive measurements of the stability of rotating neutron stars as clocks. NICER's capabilities will also enable a rich observing program of many classes of X-ray sources in addition to neutron stars, including accreting black holes and cataclysmic variables. Opportunities exist for research, both observational and theoretical, in areas of relevance to NICER that will support, enable and enhance the science return from NICER observations as well as existing archival X-ray timing data.

Location:
Goddard Space Flight Center
Greenbelt, Maryland

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Field of Science: Astrophysics

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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.