Opportunity Title: Laser Interferometer Space Antenna: Sources and Data Analysis Tools

Opportunity Reference Code: 0003-NPP-MAR26-JPL-Astrophys

Organization	National Aeronautics and Space Administration (NASA)
Reference Code	0003-NPP-MAR26-JPL-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

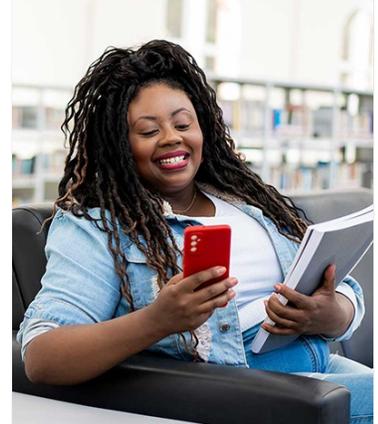|	
Application Deadline	4/2/2026 6:00:59 PM Eastern Time Zone
Description	**About the [NASA Postdoctoral Program](#)**

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:

LISA is a planned joint NASA/ESA mission to measure gravitational waves from space. Astrophysical sources for LISA include: compact binaries (e.g., white dwarf –white dwarf binaries), mergers of supermassive black holes, and inspirals of compact stellar-mass objects into supermassive black holes. Dr. Cutler does research on LISA sources and is developing methods and tools to be used in LISA data analysis. In particular, he is currently doing studies on how accurately physical source parameters (such as the source's location on the sky, or the masses of both objects in a binary) could be extracted from the noisy LISA data set. He is also developing computationally efficient strategies for digging weak signals out of the data, and he is participating in the Mock LISA Data Challenges, wherein synthetic source signals are added, in a blind way, to synthetic LISA noise, and participants are challenged to extract the signals and recover the correct parameter values. The goal of the Mock LISA Data Challenges is to develop the data analysis tools that will be needed for LISA, and to demonstrate readiness in this area.

References:

[1] Barack, L. and Cutler, C., 2004, "LISA Capture Sources: Approximate Waveforms, Signal-to-Noise Ratios, and Parameter Estimation Accuracy", PRD 69, 082005.

[2] Cutler, C., and Harms, J., 2006, "Big Bang Observer and the neutron-star-binary subtraction problem", PRD 73, 042001.

Location:
Jet Propulsion Laboratory
Pasadena, California

Field of Science: Astrophysics

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.