Opportunity Title: Direct Imaging of Circumstellar Disks & Exoplanets
Opportunity Reference Code: 0149-NPP-MAR26-JPL-Astrophys

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0149-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:

Circumstellar disks are an integral component of planetary systems. They provide the raw material and host environment for planet formation, and persist into mature planetary systems as debris from ongoing collisions of remnant planetesimals. Their internal structure can show the dynamic imprint of any planets within. We are conducting observational research on circumstellar disks with the goals of imaging new systems; understanding their structure, dust properties, and evolution via multiwavelength observations; and searching for associated planets. Recent imaging data from the Hubble Space Telescope, James Webb Space Telescope, and the Atacama Large Millimeter Array, combined with infrared spectral energy distributions from the Spitzer Space Telescope and Herschel Space Observatory, are compared with numerical models to derive disk properties. Supporting data is obtained with large groundbased telescopes such as Keck and Palomar.

Related research includes preparatory work for disk imaging with the coronagraph instrument on the Roman Space Telescope, scheduled for launch by spring 2027. Working with the Roman Coronagraph Community Participation team, we are modeling the likely size and brightness of never-before-imaged debris disks around bright stars. The goal of this work is to support target selection for community surveys of warm debris disks and exozodical dust with the Roman Coronagraph, followed by development of observing sequences for execution during the first few years of

Opportunity Title: Direct Imaging of Circumstellar Disks & Exoplanets
Opportunity Reference Code: 0149-NPP-MAR26-JPL-Astrophys

the mission. Additional related research is being conducted on performance goals and technology issues for the future Habitable Worlds Observatory, and updates & improvements to the website https://circumstellardisks.org.

JPL has a dynamic environment for exoplanet research with NASA's Exoplanet Exploration Program Office, JPL's Exoplanet Discovery and Science research group, the Roman Coronagraph Instrument team, access to the Palomar 5m telescope, and collaborations with local exoplanet researchers at the Caltech Astronomy Department and the NASA Exoplanet Science Institute. Candidates with interests in protoplanetary and debris disks, exoplanet direct imaging, or high contrast observation techniques are encouraged to apply.

Location:
Jet Propulsion Laboratory
Pasadena, California

Field of Science: Astrophysics

Advisors:
Karl R. Stapelfeldt
karl.r.stapelfeldt@jpl.nasa.gov
818.354.9608

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

Opportunity Title: Direct Imaging of Circumstellar Disks & Exoplanets
Opportunity Reference Code: 0149-NPP-MAR26-JPL-Astrophys

Eligibility Requirements	• **Degree:** Doctoral Degree.