

**Opportunity Title:** Space Science: Exoplanet Science and Technology  
Development

**Opportunity Reference Code:** 0034-NPP-NOV23-ARC-PlanetSci

**Organization** National Aeronautics and Space Administration (NASA)

**Reference Code** 0034-NPP-NOV23-ARC-PlanetSci

**Application Deadline** 11/1/2023 6:00:59 PM Eastern Time Zone

**Description** Ames scientists are actively involved in theoretical computation of extrasolar planet atmospheres, predicting exoplanet spectra, conducting and interpreting exoplanet observations, planning future observations, and developing technology for future exoplanet missions.

Atmospheric models and spectra are being developed for giant planets, terrestrial planets, and brown dwarfs. These are being applied to interpret spectroscopic observations made by the Spitzer Space Telescope and to plan future observatories.

Theoretical models of multi-planet solar systems are being used to interpret ground-based radial velocity observations. This work has resulted in the discovery of new planets and some of the least massive known exoplanets.

Ames is also planning and studying exoplanet observations with future NASA missions, including data from NASA's Kepler mission, the James Webb Space Telescope, and future coronagraphic and transiting exoplanet missions.

Finally, Ames is putting significant effort into developing a high contrast imaging testbed for an eventual mission to image exoplanets with a coronagraphic space telescope. This testbed includes a high performance Phase-Induced Amplitude Apodization (PIAA) coronagraph and a wavefront control system utilizing MEMS deformable mirrors. There are opportunities for participating in this effort in a variety of areas, including optical analysis and alignment, wavefront control, and coronagraph system modeling.

**Location:**

Ames Research Center  
Moffet Field, California

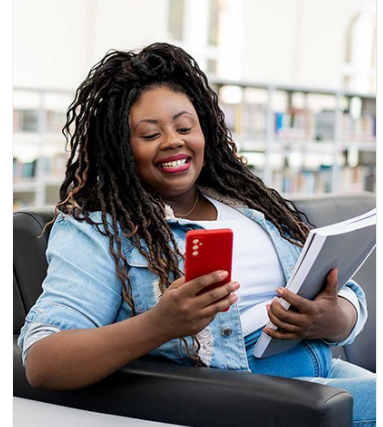
**Field of Science:** Planetary Science

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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/oiiir/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

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