

Opportunity Title: Stellar and Exoplanet science with the Star-Planet Activity Research CubeSat (SPARCS)

Opportunity Reference Code: 0322-NPP-NOV25-JPL-Astrophys

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0322-NPP-NOV25-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 11/1/2025 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 SPARCS (Star-Planet Activity Research CubeSat) team invites applications for a postdoctoral researcher to join an innovative and interdisciplinary mission at the forefront of ultraviolet (UV) astrophysics, exoplanet habitability studies, and small satellite technology and operations.

SPARCS is a NASA-funded 6U CubeSat designed to monitor UV variability from low-mass stars (K and M dwarfs) with the goal of understanding how stellar activity—particularly in the form of flares—shapes the atmospheres and habitability of orbiting exoplanets. Launching in late 2025 SPARCS will advance our understanding of the high-energy radiation environments of stars that host the majority of known planets in the habitable zone. Over its one-year primary mission, SPARCS will perform long-duration stares (5–40 days) of ~20 stars in two UV bands: 153 – 171 nm and 260 – 300 nm. More information about the mission can be found at Shkolnik et al. 2025 "Building SPARCS, an Ultraviolet Science CubeSat for Exoplanet Habitability Studies, Technology Advancements, and Mission Training" (<https://arxiv.org/abs/2507.03102>).

We seek a motivated and collaborative researcher that will join the SPARCS science and engineering team. The analysis of flare data and its



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contextualization to planet habitability is the primary science goal for SPARCS. However, as this is a small team, the researcher will have the opportunity to tailor the research to their interests, and can contribute to all aspects of the mission, including other aspects of science analysis, improvement of engineering processes, and data processing. SPARCS emphasizes mentorship and leadership development—prior team members have transitioned to leadership roles in NASA MIDEX, SMEX, and flagship mission development.

Field of Science: Astrophysics

Advisors:

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

- Qualifications**
- Ph.D. in astrophysics, planetary science, or a related discipline, by the beginning of the postdoctoral appointment.
 - Experience with time-domain astrophysics, UV or multi-wavelength photometry, stellar astrophysics, or planetary atmospheric modeling.
 - Expertise in astronomical data reduction pipelines, high-reliability software systems, and detector calibration is strongly valued.
 - Excellent written and oral communication skills and the ability to work in a diverse, collaborative environment.

Point of Contact [Mikeala](#)

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| Eligibility | • Citizenship: LPR or U.S. Citizen |
| Requirements | • Degree: Doctoral Degree. |