

Opportunity Title: Advanced Radar Technologies for Earth and Planetary Science

Opportunity Reference Code: 0299-NPP-NOV24-JPL-TechDev

Organization National Aeronautics and Space Administration (NASA)

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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 11/1/2024 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:

This research focuses on the development of advanced radar instruments for a variety of science applications in Earth and planetary science, with strong emphasizes on laboratory technology demonstrations aimed at integration into ongoing or upcoming NASA missions and proposal opportunities.

The specific research topics include RF component-level development, light-weight, high-gain antenna systems, high-efficiency transmitters, low-phase noise RF sources, and other critical radar components. Topics also cover radar signal processing and machine learning, applying advanced techniques to enhance radar data interpretation and sensitivity, and the demonstration of new millimeter-wave radar applications.

The proposed research aligns with NASA's Earth and Planetary Science goals, contributing significantly to our understanding of clouds, precipitation, climate, weather, and the dynamics and compositions of planetary bodies. The postdoctoral fellow will engage in hands-on hardware design, assembly, testing, and data analysis, working in both laboratory and field settings, including ground and airborne campaigns.

We are seeking candidates with a strong background in laboratory instrumentation, radar systems, RF engineering, signal processing, or



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related fields, and who are eager to contribute to cutting-edge research with science applications.

Field of Science: Technology Development

Advisors:

Raquel Rodriguez Monje

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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/oior/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

Eligibility Requirements

- **Degree:** Doctoral Degree.