

Opportunity Title: Computational design for spacecraft applications

Opportunity Reference Code: 0319-NPP-JUL25-JPL-Eng

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0319-NPP-JUL25-JPL-Eng

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 7/1/2025 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.

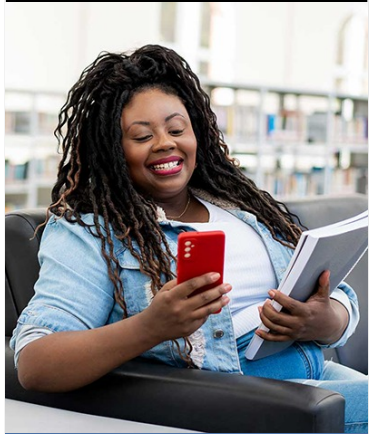
Description:

The Materials Development & Additive Manufacturing group at JPL seeks a highly motivated Postdoctoral Scholar to conduct basic science research focused on the development of computational design tools for spacecraft applications, specifically leveraging topology optimization and lattice structures. Building upon prior work at JPL, including the open-source lattice design tool UnitcellHub and an internal topology optimization framework, the successful candidate will lead independent scientific research to develop new and innovative approaches to spacecraft design. Candidates should possess a recent PhD in a relevant field such as structural mechanics, heat transfer, numerical optimization, topology optimization, or lattice design. The postdoctoral scholar will be responsible for vigorously performing and publishing peer-reviewed research, as well as filing relevant intellectual property. This position offers the opportunity for independent scientific research with access to advanced manufacturing capabilities, such as plastic and metal 3D printers, and high-performance computing environments.

Field of Science: Engineering

Advisors:

Ryan Watkins



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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.