zintellect
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Opportunity Title: Understanding the Connections between Large and Small Scale Structures in the Solar Wind
Opportunity Reference Code: 0316-NPP-MAR25-GSFC-Heliophys

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0316-NPP-MAR25-GSFC-Heliophys

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 3/1/2025 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 U.S. and non-U.S. 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:

There are various structures ranging from large-scale (such as coronal mass ejections and stream interaction regions) to small-scale (such as magnetic reconnections, ion beams, and ion-scale waves) in the solar wind. Large-scale structures can provide sufficient energy to drive small-scale changes in the solar wind. Although many studies are done for large-scale structures and small-scale structures individually, the connection between them remains a mystery and is not well investigated. Examining their relationship can offer critical insights into energy cascade processes cross scales.

Parker Solar Probe mission launched in 2018 has reached regions as close as about 10 solar radii from the Sun and crossed the Alfven surface. It offers a unique opportunity to explore very young solar wind. Therefore, the utilizing of PSP data for this science topic is highly recommended.

Field of Science: Heliophysics Science

Advisors:

Lan Jian
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(301) 286-3309

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

Qualifications

PhD degree in space physics, astrophysics, or related fields.

Experience of analyzing spacecraft data.

Point of Contact

Mikeala Lambertucci

Eligibility Requirements

- **Degree:** Doctoral Degree.