Opportunity Title: Heliophysics Science: Heliophysics: Solar Wind Connections with Magnetized Plasmas and Gases
Opportunity Reference Code: 0029-NPP-NOV26-GSFC-HelioSci

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0029-NPP-NOV26-GSFC-HelioSci

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 11/1/2026 6:00:59 PM Eastern Time Zone

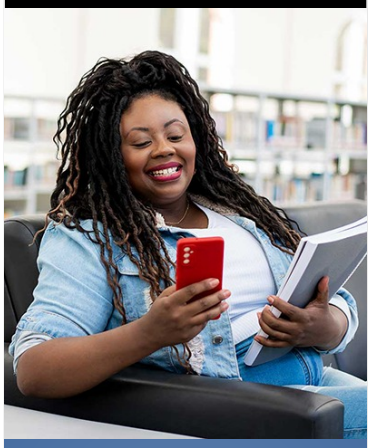
Description **About the NASA Postdoctoral Program**

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:

Orbiting spacecraft observations are complemented by sounding rockets, ground based observations, and modeling to diagnose and understand the ionization, heating and flow of gases, driven by solar wind electromagnetic and kinetic energy fluxes connected via magnetic fields to ionospheres and atmospheres. Spacecraft data sets used include those from Wind, Polar, Geotail, Cluster, FAST, IMAGE, THEMIS, IBEX, and soon, MMS. Energy fluxes are traced from regions producing reconnected magnetic fields, into structured ionospheric flows and dissipation mechanisms. Resulting plasma outflows are tracked through the global circulation, where they provide feedback by mass loading and pressurizing those flows. For example, plasmaspheric material convects to the dayside magnetopause where in active times it dominates the plasma density there and loads reconnexion. We also explore the behavior of magnetized plasmas through our Global Ion Kinetic simulations, using single particle trajectory tracing, kinetic modeling, and multifluid magnetohydrodynamic models. Opportunities exist to develop new instruments, analyze existing data sets, and conduct modeling experiments.

NPP NASA Postdoctoral Program
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Opportunity Reference Code: 0029-NPP-NOV26-GSFC-HelioSci

Location:
Goddard Space Flight Center
Greenbelt, Maryland

Field of Science: Heliophysics 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/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.