Opportunity Title: Heliophysics Science: Electrodynamic Processes and Waves in the Ionosphere and Magnetosphere
Opportunity Reference Code: 0323-NPP-MAR25-GSFC-Heliophys

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0323-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:

The importance of dc and wave electric field measurements gathered on satellites and sounding rockets in the ionosphere and magnetosphere has long been recognized as critical to understanding fundamental physical phenomena in space. When combined with observations of magnetic fields, current densities, plasma number densities and temperatures, energetic particles, and neutral dynamics, vector observations of DC/AC electric fields provide not only essential tools for space physics exploration but also unprecedented local in situ measurements of key ionospheric and magnetospheric processes.

The electrodynamics of the ionosphere and magnetosphere are being investigated by electric and magnetic field experiments on rockets and satellites that use in situ probes with high-quantitative accuracies. These observations provide the necessary data to further our understanding of the role of fundamental processes in space, including the interactive coupling between the magnetosphere, the ionosphere, and the neutral atmosphere that is inherent to the space environments of the earth and other planets.

Field of Science: Heliophysics Science

Advisors:

Robert Pfaff

Opportunity Title: Heliophysics Science: Electrodynamic Processes and Waves in the Ionosphere and Magnetosphere
Opportunity Reference Code: 0323-NPP-MAR25-GSFC-Heliophys

Robert.F.Pfaff@nasa.gov
240-247-7865

Doug Rowland
Douglas.E.Rowland@nasa.gov
(301) 286-6659

Aaron Breneman
aaron.w.breneman@nasa.gov
651-295-4922

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

Candidates should have a PhD or equivalent in the physical sciences or relevant engineering applicable to space physics research in the general fields of heliophysics and/or planetary physics.

Experience with the analysis of experimental data is a highly valued attribute, though not necessarily a requirement.

Point of Contact Mikeala Lambertucci

Eligibility Requirements

- **Degree:** Doctoral Degree.