Opportunity Title: Space Physics Instrument Development
Opportunity Reference Code: 0043-NPP-JUL24-JPL-TechDev

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0043-NPP-JUL24-JPL-TechDev

Application Deadline 7/1/2024 6:00:59 PM Eastern Time Zone

Description The Space and Astrophysical Plasmas group at JPL is developing new instrumentation in both in-situ magnetometry and solar remote sensing. We are looking postdoctoral researchers in two areas: (1) The development of a compact magnetometer for making in-situ measurements in various space environments. This instrument is based on the vector helium magnetometer flown on multiple space missions (e.g. Smith et al 2003), but will be considerably less massive. (2) Ground-based and flight instrumentation to measure velocities and magnetic fields in the Sun's atmosphere (e.g. Murphy et al, 2005). Such instruments will be used to probe the internal structure of the sun, examine the evolution of solar magnetic fields and study wave propagation in the sun's atmosphere.

It is hoped that successful candidates will both contribute to the development of instrumentation and interpretation of instruemnt data.

E. J. Smith and A. Balogh, “Open Magnetic Flux: Variation with Latitude and Solar Cycle”, Solar Wind Ten, Ed. M. Velli, R. Bruno and F. Malara, AIP, CP679, 67-70, 2003.

Murphy, N., E.J. Smith, W. Rodgers and S. Jefferies, Chromospheric observations in the Helium 1083nm line – A new instrument, Proc. Solar Wind 11 – SOHO 16, ESA SP-592, 2005.

Location:
Jet Propulsion Laboratory
Pasadena, California

Field of Science: Technology Development

Advisors:
Neil Murphy
Neil.Murphy@jpl.nasa.gov
818-354-8718

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

Opportunity Title: Space Physics Instrument Development
Opportunity Reference Code: 0043-NPP-JUL24-JPL-TechDev

application with 1) a valid EAD card and 2) I-485 or I-589 forms in pending status

Eligibility Requirements

- **Degree:** Doctoral Degree.