

**Opportunity Title:** Kinetic-scale fluctuations and turbulent energy transfer

**Opportunity Reference Code:** 0198-NPP-NOV23-GSFC-HelioSci

**Organization** National Aeronautics and Space Administration (NASA)

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**Application Deadline** 11/1/2023 6:00:59 PM Eastern Time Zone

**Description** Turbulence is a ubiquitous process in plasma physics. It is responsible for cascading energy injected at fluid scales, down to smaller kinetic scales, where it can be more efficiently transferred to charged particles. Instrumentation on NASA's Magnetospheric Multiscale (MMS) mission provides plasma parameters at orders of magnitude faster cadences than on previous space missions and the four MMS spacecraft are sufficiently close together to resolve ion-scale features and wave modes. MMS therefore provides a unique opportunity to probe the underlying physics of turbulence at kinetic scales. The candidate would have the opportunity to work closely with the MMS Fast Plasma Investigation team to study wave-particle energy transfer and kinetic-scale dissipation.

**Location:**

Goddard Space Flight Center  
Greenbelt, Maryland

**Field of Science:**Heliophysics Science

**Advisors:**

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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/oiiir/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

**Eligibility Requirements** • **Degree:** Doctoral Degree.



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