

**Opportunity Title:** Astrophysics: Theoretical X-Ray and Ultraviolet Astronomy

**Opportunity Reference Code:** 0084-NPP-NOV23-GSFC-Astrophys

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

**Reference Code** 0084-NPP-NOV23-GSFC-Astrophys

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

**Description** Theoretical research concerns the physics of accreting compact objects such as cataclysmic variables, x-ray binaries, and active galactic nuclei; observational tests of such theories are also performed. The problems studied include (1) radiation transfer in optically thin gas such as quasar emission line clouds and in optically thick gas such as x-ray illuminated stellar atmospheres and accretion disks; (2) accumulation of a high-quality atomic physics data base for use in spectral modeling; (3) gas dynamics such as accretion flows in x-ray binaries and stellar winds; and (4) construction of synthetic x-ray, ultraviolet, and optical spectra of accreting objects and detailed comparison with observational data.

Applicants are encouraged to participate in any of these areas or to initiate related research.

**Location:**

Goddard Space Flight Center  
Greenbelt, Maryland

**Field of Science:**Astrophysics

**Advisors:**

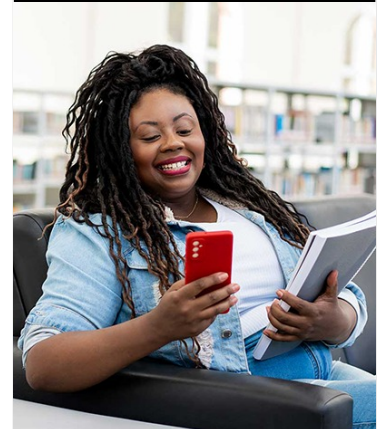
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**Applications with citizens from Designated Countries will not be accepted at this time, unless they are Legal Permanent Residents of the United States.** A complete list of Designated Countries can be found at: <https://www.nasa.gov/oiir/export-control>.

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

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



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