

Opportunity Title: Optics: Advanced X-Ray Optics

Opportunity Reference Code: 0006-NPP-NOV23-MSFC-Astrophys

Organization National Aeronautics and Space Administration (NASA)

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

Description X-ray optics has revolutionized the field of X-ray astronomy. Images from the Chandra observatory provide unprecedented detail to aid in our understanding of the cosmos. Future missions will demand even higher angular resolutions and lighter weight optics and these in turn will demand new approaches to X-ray mirror fabrication, assembly, and test. The goal of this work is to explore promising avenues for achieving higher angular resolution, support mission and telescope design (ray tracing, optical assembly design, etc.), and X-ray calibration and testing (including metrology). This work will entail an analysis of factors limiting mirrors made with existing technologies and investigations of modified or new approaches that will enable high-throughput, very lightweight, meter-class optics with arc-second or better angular resolution.

Location:

Marshall Space Flight Center
Huntsville, Alabama

Field of Science: Astrophysics

Advisors:

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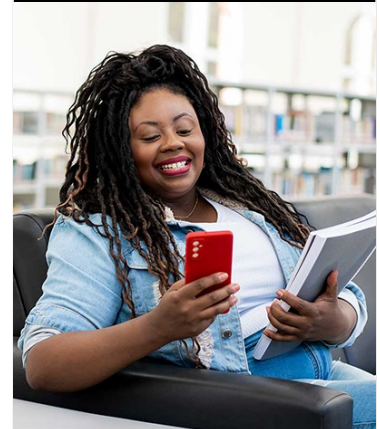
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Applications with citizens from Designated Countries will not be accepted at this time, unless they are Legal Permanent Residents of the United States. A complete list of Designated Countries can be found at: <https://www.nasa.gov/oiiir/export-control>.

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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