

**Opportunity Title:** Origins Space Telescope Pre-Formulation Studies and Technology Development

**Opportunity Reference Code:** 0226-NPP-NOV23-GSFC-Astrophys

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

**Reference Code** 0226-NPP-NOV23-GSFC-Astrophys

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

**Description** The Origins Space Telescope is one of four flagship-class missions studied in preparation for the 2020 Decadal Survey in Astronomy and Astrophysics. The mission concept study report and a technology development plan are available at <https://asd.gsfc.nasa.gov/firs/docs/>. The Origins Space Telescope will trace the history of our origins from the time dust and heavy elements permanently altered the cosmic landscape to present-day life. How did galaxies evolve from the earliest galactic systems to those found in the Universe today? How do habitable planets form? How common are life-bearing worlds? To answer these alluring questions, Origins is envisaged as a cryogenic 5.9 m diameter telescope with three instruments working at wavelengths from 2.8 to 588 microns and offering powerful spectroscopic capabilities and three orders-of-magnitude improvement in sensitivity relative to the Herschel Space Observatory. If the Decadal Survey prioritizes Origins, NASA will set up a Pre-Formulation Project Office and further studies will begin. This is an exciting opportunity to get in on the ground floor. We welcome applications from technologists, instrumentalists, modelers and data analysts. Specific topics of interest include: (1) TES bolometer and MKID detector development and characterization; (2) modeling the far-infrared sky to probe limitations on information retrieval from integral field spectroscopic data imposed by the finite spatial resolution of the telescope; and (3) development of a Design Reference Mission, which can be used for benchmarking during trade studies. We also encourage prospective candidates to propose Origins-relevant research topics of their own.

**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



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at: <https://www.nasa.gov/oijr/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.