

**Opportunity Title:** Looking at Infrared Background Radiation with Euclid - LIBRAE

**Opportunity Reference Code:** 0236-NPP-NOV23-GSFC-Astrophys

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

**Reference Code** 0236-NPP-NOV23-GSFC-Astrophys

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

**Description** ??LIBRAE is one of 3 US-based science projects approved by NASA to run on the upcoming ESA's Dark Energy Euclid mission, with a major contribution from NASA. LIBRAE will measure source-subtracted cosmic infrared background (CIB) structure (fluctuations) and determine the epochs of the populations producing these fluctuations. In conjunction with a number of other X-ray missions and microwave facilities, it will probe the contribution of early black holes, and the condition of intergalactic gas at these epochs. See description and plans at <https://www.euclid.caltech.edu/page/KashlinskyTeam>. We are seeking motivated junior scientists to participate in the development of this program, following the Euclid launch July 2023. The successful candidate should be qualified and interested to participate in one, or all, of the following: 1) preparation of accurate maps from Euclid data suitable for probing the CIB signal, 2) refining understanding of the contributions from known populations to the CIB signal, 3) further development of theoretical contributions from early populations, such as Population 3, direct-collapse black holes, or primordial black holes making up dark matter. At present, preference will be given to 1) and 2), but strong candidates interested to work on 3) will be welcome.

**Location:**

Goddard Space Flight Center  
Greenbelt, Maryland

**Field of Science:**Astrophysics

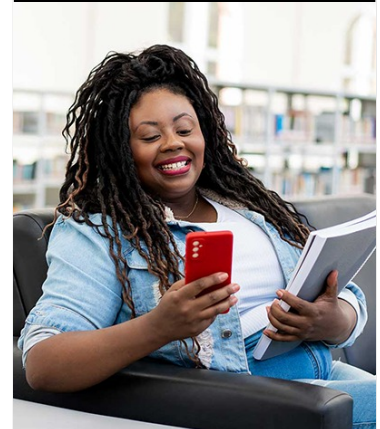
**Advisors:**

Jeff Kruk  
Jeffrey.W.Kruk@nasa.gov  
301-286-8758

**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,



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- 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.