

Opportunity Title: Cosmic Dawn and Large-scale Structure with Intensity

Mapping

Opportunity Reference Code: 0164-NPP-NOV23-JPL-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 The Cosmic Dawn and Reionization epochs remain the last frontiers in astrophysics and cosmology. Intensity Mapping has emerged as a promising tool to efficiently probe the Universe in three-dimensions by tomographic mapping the cosmic structures using spectral lines such as the redshifted 21cm, CO, [CII], Ly α and other optical lines. The candidate will aim at exploring and establishing the potentials of Intensity Mapping by combining theoretical insights with new and well-targeted observational probes, simulated and analyzed with adequate statistical methods, with possible interface with instruments. I expect the NPP postdoctoral scholar to conduct independent research relevant to current and future potential NASA missions such as SPHEREx and CDIM. The candidate will have a Ph.D in Astrophysics or Physics with a strong background in astrophysics and cosmology.

Location:

Jet Propulsion Laboratory
Pasadena, California

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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