

Opportunity Title: Evolution of ISM and Star Formation

Opportunity Reference Code: 0059-NPP-NOV23-JPL-Astrophys

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0059-NPP-NOV23-JPL-Astrophys

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

Description We are conducting surveys of nearby star forming regions. The resulting spectroscopic and continuum data sets promise a comprehensive view of the dynamic state and evolutionary history of the ISM in these regions. Our current research focuses include high angular and spectral resolution spectroscopy through observations and 3D modeling of continuum SED and multi-band images. High resolution data are being accumulated through SMA and EVLA proposals. A 3d modeling code for handling dust radiative transfer is available along with various spectral line excitation and radiative transfer programs. The advisor is Project Scientist for the Space Terahertz Observatory (STO), which is an approved NASA ULDB balloon mission that will observe [NII], [CII], and [OI]. We are looking for researchers who can work on data reduction and modeling, as well as providing ideas for new, related projects.

Li, D., Velusamy, T., Goldsmith, P.F. & Langer, W., 2007, "Massive Quiescent Cores in Orion part II – Core Mass Function", ApJ, 655, 351;
Goldsmith, P., Heyer, M., Narayanan, G., Snell, R., Li, D. & Brunt, C., 2008, "Large--Scale Structure of the Molecular Gas in Taurus Revealed by High Spatial Dynamic Range Spectral Line Mapping", 2008, ApJ, 680, 428.

Location:

Jet Propulsion Laboratory
Pasadena, California

Field of Science: Astrophysics

Advisors:

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(818) 393-0518

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



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