

**Opportunity Title:** Atomic Clocks and Quantum Sensors

**Opportunity Reference Code:** 0025-NPP-JUL24-JPL-TechDev

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

**Reference Code** 0025-NPP-JUL24-JPL-TechDev

**Application Deadline** 7/1/2024 6:00:59 PM Eastern Time Zone

**Description** Developing new enabling technologies that can be used in space for fundamental and applied sciences is the primary focus of our research efforts. Research activities range from basic concept studies, proof-of-principle demonstrations in the laboratory, and instrument implementation.

We develop atomic frequency standards, clocks, and related quantum sensor technologies for precision measurements in space. Strong technological synergy exists between clocks and sensors; both of them are related to precision frequency, phase, and time measurements. An example is the cold atom clock and atom interferometry sensors. Current research areas include 1) micro atomic clocks, 2) optical clocks with neutral atoms and trapped ions, 3) atom interferometer sensors, and 4) photonic quantum sensors. Opportunities also exist in formulating and conducting space fundamental physics research using the precision measurement methods and tools.

For more information and a list of our publications, please visit [http://technology.jpl.nasa.gov/people/n\\_yu/](http://technology.jpl.nasa.gov/people/n_yu/), <http://quantum.jpl.nasa.gov>, and <https://scienceandtechnology.jpl.nasa.gov/quantum-sciences-and-technology-laboratories>

**Location:**

Jet Propulsion Laboratory  
Pasadena, California

**Field of Science:** Technology Development

**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>.



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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

***This opportunity may require the following: 1- Mandatory drug testing; 2-Random drug testing; 3- Testing prior to initiation of fellowship appointment.***

**Eligibility Requirements**

- **Degree:** Doctoral Degree.