

Opportunity Title: Frequency and Time Metrology, Atomic Frequency Standards, Clocks and Timing Systems, Photonic Signal Distribution

Opportunity Reference Code: 0028-NPP-NOV23-JPL-TechDev

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0028-NPP-NOV23-JPL-TechDev

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

Description We develop state of the art atomic frequency standards, oscillators, clocks, signal distribution systems, and precision measurement technologies. Research and Development opportunities focus on state of the art frequency and timing technologies to enable precision spacecraft tracking, navigation, and radio science. Research activities range from basic proof-of-concept laboratory demonstrations to ground and space based instrument implementation. Current research areas include 1) Mercury trapped ion frequency standards for state of the art timekeeping and spaceflight applications; 2) photonic oscillators and low noise characterization capabilities for the JPL Frequency Standards Test Laboratory; 3) High performance NASA Deep Space Network frequency standards, clock and timing systems; 4) Reference signal distribution, stabilized photonic links, and antenna array architectures; 5) Low noise analysis and algorithm development, 6) High stability satellite frequency and time transfer.

Location:

Jet Propulsion Laboratory
Pasadena, California

Field of Science:Technology Development

Advisors:

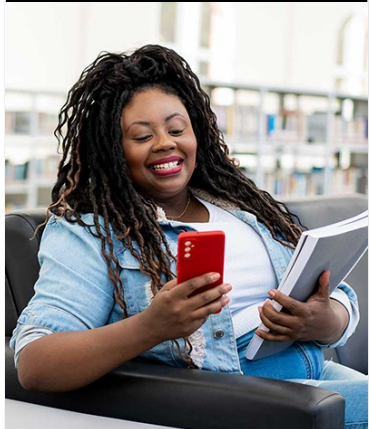
Robert L. Tjoelker
Robert.L.Tjoelker@jpl.nasa.gov
818-354-1873

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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