

**Opportunity Title:** Spacecraft and Instrument Development for Planetary Science and Exploration

**Opportunity Reference Code:** 0009-NPP-NOV23-JSC-AeroEng

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

**Reference Code** 0009-NPP-NOV23-JSC-AeroEng

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

**Description** The Astromaterials Research and Exploration Science (ARES) Directorate at NASA Johnson Space Center supports NASA's Solar System exploration and research goals through participation on various spacecraft missions. ARES personnel are actively engaged in missions such as the Mars rovers Opportunity and Curiosity, the DAWN spacecraft to asteroid Ceres, and the OSIRIS REX sample return spacecraft to the near-Earth asteroid Bennu. I am currently seeking qualified individuals with degrees in Planetary Science or Aerospace Engineering with career interests in areas of, but not limited to, instrument and spacecraft development, modeling and computational analyses, observational and experimental design, and systems engineering .

My current research interest is focused on the development of concept designs and feasibility studies of science instruments and engineering experiments to be flown on robotic and human spacecraft missions. These activities will support planetary science investigations for the Science Mission Directorate (SMD) and the Human Exploration and Operations Mission Directorate (HEOMD). Ideally the goal is to refine these initial designs and studies so that they will be selected for upcoming NASA missions. I am specifically interested in participating in missions that will investigate the Moon, Earth's Orbital Environment, Near-Earth Objects, Mainbelt Asteroids, Comets, Mars and its Satellites, and the Trojan Asteroids.

Selected candidates will be intimately involved with the entire process of concept formulation and will participate in further development in areas related to instrument design/fabrication, computational/experimental modeling, and system engineering tests. The goal of this "hands on" approach is to develop and design hardware at relatively low technology readiness levels that can be upgraded for inclusion into future flight missions.

**Location:**

Johnson Space Center  
Houston, Texas

**Field of Science:**Aeronautics, Aeronautical or Other Engineering

**Advisors:**

Paul Abell  
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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

**Eligibility Requirements**

- **Degree:** Doctoral Degree.