Opportunity Title: New Algorithms and Science Data Processing for Hyperspectral Imagery
Opportunity Reference Code: 0076-NPP-NOV23-ARC-EarthSci

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0076-NPP-NOV23-ARC-EarthSci

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

Description To prepare for the upcoming Surface Biology and Geology (SBG) hyperspectral observing system,* NASA is embarking on a new activity that will provide the scientific community with SBG-like data products from airborne and space-borne imaging spectroscopy missions, e.g., the HyspIRI airborne campaigns, DESIS, HISUI, and Hyperion. This effort will also inform the science data processing architecture for SBG. NASA Ames Research Center is adapting its automated science processing operations developed for the Kepler and TESS exoplanet missions for the SBG precursor activity and seeks a post-doctoral fellow to assist with implementing science algorithms for processing imaging spectroscopy data from its raw state (Level 0) through to global gridded data products (Level 3).** The fellow will also have the opportunity to develop their own research algorithms suitable for use with SBG-like datasets.

This is a unique and rare opportunity for an early-career scientist to advance their research interests while contributing to a high-visibility Earth Science mission early in its formulation.

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* The Surface Biology & Geology observing system will examine ground and water temperature, snow reflectivity, active geologic processes, vegetation traits, and algal biomass using hyperspectral imagery in the visible and shortwave infrared and multi- or hyperspectral imagery in the thermal IR (https://science.nasa.gov/earth-science/decadal-sbg)

**Details on NASA data processing levels can be found at: https://earthdata.nasa.gov/collaborate/open-data-services-and-software/data-information-policy/data-levels

Location:
Ames Research Center
Moffet Field, California

Field of Science: Earth Science

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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.