Opportunity Title: Ecosystem Structure and Function from the Fusion of Lidar, Hyperspectral, and Thermal Data
Opportunity Reference Code: 0163-NPP-NOV23-GSFC-EarthSci

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0163-NPP-NOV23-GSFC-EarthSci

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

Description Remote sensing data provide essential information on the spatial and temporal variability in vegetation structure and function. Airborne remote sensing offers unique flexibility, including the potential to combine different sensors on a single platform and to acquire data at the scale of individual trees. Goddard's Lidar, Hyperspectral, and Thermal Airborne Imager (G-LiHT, gliht.gsfc.nasa.gov) collects coincident measurements of 3D structure, vegetation composition, and environmental gradients. G-LiHT data have been collected across North America, supporting studies of forest carbon stocks, vegetation composition, forest health, and managed landscapes (agriculture, urban, and coastal environments). Research activities on vegetation structure and function include opportunities to explore fundamental aspects of data fusion, including the use of sophisticated radiative transfer models to support algorithm development and science analysis. Studies using G-LiHT and other airborne remote sensing data also provide a basis for linking field measurements to moderate resolution remote sensing data, including current (e.g., Landsat 8, Hyperion, MODIS, Suomi-NPP) and future NASA missions (e.g., GEDI, EcoStress, HyspIRI, PACE). Research proposals to explore questions of scale, data fusion, ecology, leaf traits, light utilization, and fundamentals aspects of vegetation remote sensing are encouraged.

Location:
Goddard Space Flight Center
Greenbelt, Maryland

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.