

Opportunity Title: Earth Science: Remote Sensing and Modeling of Soil Moisture

Opportunity Reference Code: 0099-NPP-MAR25-GSFC-EarthSci

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0099-NPP-MAR25-GSFC-EarthSci

How to Apply All applications must be submitted in [Zintellect](#)

Please visit the NASA Postdoctoral Program website for application instructions and requirements: [How to Apply | NASA Postdoctoral Program \(orau.org\)](#).

A complete application to the NASA Postdoctoral Program includes:

1. Research proposal
2. Three letters of recommendation
3. Official doctoral transcript documents

Application Deadline 3/1/2025 6:00:59 PM Eastern Time Zone

Description About the [NASA Postdoctoral Program](#)

The [NASA Postdoctoral Program \(NPP\)](#) offers unique research opportunities to highly-talented scientists to engage in ongoing NASA research projects at a NASA Center, NASA Headquarters, or at a NASA-affiliated research institute. These one- to three-year fellowships are competitive and are designed to advance NASA's missions in space science, Earth science, aeronautics, space operations, exploration systems, and astrobiology.


Description:

The Hydrological Sciences Laboratory at NASA's Goddard Space Flight Center is seeking a post-doc candidate in the area of remote sensing of soil moisture. The Lab has expertise in ground and space-based observation and modeling of soil moisture, snow, precipitation, and terrestrial water storage. The prospective new candidate should work with other members of the Lab towards the goal of developing a comprehensive and complete understanding of the water cycle by providing expertise in the retrieval of soil moisture fields from microwave observations on a wide range of scales. Activities could include contributing to the development and testing of soil moisture retrieval algorithms, participating in hydrological field campaigns, studying the variability of soil moisture in time and space, and researching methods for incorporating remotely sensed soil moisture data into numerical prediction models. The ideal candidate will have experience in the application, validation, and improvement of algorithms for estimating soil moisture from low frequency microwave observations, particularly data from satellite observing systems such as SMOS, Aquarius, GPM, and SMAP. Candidates should have experience in one or more of the following: hydrology, hydrometeorology, hydroclimatology, microwave remote sensing, soil moisture, environmental science, land-atmosphere interactions, and/or Earth system modeling and data assimilation, including the development of interpretation and spatial-temporal analysis techniques. Experience or interest with NASA Earth science satellite missions and/or a related research activity is desirable. Please see <http://neptune.gsfc.nasa.gov/hsb/>, <http://smap.jpl.nasa.gov/>, and <http://lis.gsfc.nasa.gov> for more information.

Location:



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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

Questions about this opportunity? Please email npp@orau.org

Point of Contact [Mikeala](#)

Eligibility Requirements • **Degree:** Doctoral Degree.