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Opportunity Title: Research in Coastal Hydrology
Opportunity Reference Code: 0281-NPP-MAR25-JPL-EarthSci

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0281-NPP-MAR25-JPL-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:

Coastal hydrology is a critical interdisciplinary intersection between society, the water cycle, oceanography, and climate change, and warrants both in-situ process-level understanding and large-scale global analysis. It is therefore then pertinent to bring in in-situ observations, modeled results, and machine learning approaches to fuse with remote datasets for a full understanding of hydrologic processes. Within my research, I focus on integrating different approaches while furthering remote sensing applications to better understand coastal groundwater and surface water dynamics in conjunction with other relevant coastal processes, such as sea level rise, land cover change, and vertical land motion.

Within this opportunity, the postdoctoral fellow will participate in research observing or modeling coastal hydrologic dynamics. Examples of observational datasets include: groundwater storage (GRACE, GRACE-FO, GLDAS/NLDAS), land subsidence (Sentinel-1, NISAR), land cover (MODIS, Landsat), soil moisture (SMAP), and ocean altimetry (Sentinel-6). Such datasets will be combined to holistically understand coastal groundwater processes. Specific projects may focus on future of coastal watersheds in the context of climate change, submarine groundwater discharge, or saltwater intrusion.

Field of Science:

- Earth Science

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Applications from 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

Qualifications Experience with coding (e.g., Python, MATLAB), remote sensing datasets, and modeling (e.g., climate models, groundwater models, machine learning).

Eligibility Requirements

- **Degree:** Doctoral Degree.