

**Opportunity Title:** Frontiers in submesoscale ocean physics through Surface Water and Ocean Topography (SWOT) mission **Opportunity Reference Code:** 0273-NPP-MAR24-JPL-EarthSci

Organization National Aeronautics and Space Administration (NASA)

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How to Apply All applications must be submitted in Zintellect

Application Deadline 3/1/2024 6:00:59 PM Eastern Time Zone

# **Description Description:**

The oceanography team of the Surface Water and Ocean Topography (SWOT) mission at JPL invites motivated postdoctoral candidates to join the team to work on SWOT-related oceanography projects.

The SWOT mission successfully launched the satellite in December 2022. This is the first satellite mission that produces wide-swath altimetry measurements with a high spatial resolution. Early results show very promising measurements that can be used to significantly advance various areas including fine-scale ocean processes over the open ocean as well as coastal and cryosphere boundaries.

However, challenges lie ahead. Being a pathfinder mission, SWOT requires rigorous measurement validation. In addition, high-resolution swaths with a long revisit time (~10 days in mid-latitude), results in challenges in the application of SWOT SSH to ocean and climate sciences. Validating, analyzing, and applying SWOT SSH will require innovative approaches that involve applying geospatial analyses, data assimilation and/or machine learning in combination with other remote sensing and in-situ data, and the insights into geophysical fluid dynamics.

There are rewarding opportunities to make a big impact through innovative analysis of the unprecedented SWOT measurements as well as in-situ measurements.

# Field of Science:

• Earth Science

### Advisors:

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Eligibility• Citizenship: LPR or U.S. CitizenRequirements• Degree: Doctoral Degree.

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