



# **The Upcoming Surface Water and Ocean Topography (SWOT) Mission: Advancing Inland Hydrology**

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**(passcode: water)**

## **Abstract:**

The upcoming Surface Water and Ocean Topography (SWOT) Mission will provide first-of-its-kind satellite swath altimetry with simultaneous surface-water elevations and water extent, which have great benefits for inland hydrology. Due to launch December 5, 2022, SWOT will greatly advance global observations of lakes and large rivers, particularly in locations lacking gage data. There are additional benefits for regions with gage data, including improving hydrologic and hydraulic modeling, refining water-balances of lakes and watersheds, and estimating inland bathymetry. Because it is a new class of satellite instrument with new observations, the calibration and validation (cal/val) of the data will be particularly important. The Minear Lab within CU Boulder / CIRES is co-leading the cal/val of SWOT inland water data and data products. In this talk, an overview of SWOT will be presented, as well as cal/val plans for the satellite and observations, including plans for the western CONUS.



**Speaker Bios:** Dr. Minear completed his undergraduate degree at Colorado College and later received Masters and PhD degrees from the University of California, Berkeley. Before joining the NOAA / CU Cooperative Institute for Research in Environmental Sciences (CIRES) at the University of Colorado, Boulder, Dr. Minear worked as a Research Hydrologist at the United States Geological Survey at the California Water Science Center and the National Research Program. Dr. Minear is a Science Team member and US Cal/Val Team Co-Lead for the upcoming NASA Surface Water and Ocean Topography (SWOT) Mission.