



Research and Operational Hydrologist Postdoc at Scripps Institution of Oceanography, La Jolla, CA

To apply: send CV, cover letter and names of 3 referees to Dr. Ming Pan, m3pan@ucsd.edu

The [Center for Western Weather and Water Extremes \(CW3E\)](#) at the [Scripps Institution of Oceanography \(SIO\)](#) is seeking a postdoctoral scientist to (1) perform hydrologic modeling (e.g. WRF-Hydro) experiments for hydrologic reanalysis, monitoring, and ensemble forecasting, (2) improve skill of such modeling work through measures like better forcing inputs, fusion of additional data (e.g. post-processing), and next-gen modeling framework (e.g. machine learning), (3) contribute to near real time operational monitoring and forecasting tasks at CW3E.

CW3E consists of 70+ passionate scientists who develop and operate state-of-the-art modeling (e.g., CW3E version of the Weather Research and Forecasting model tailored for extreme events over the Western US – West-WRF) and observing (e.g., [Atmospheric River Reconnaissance](#)) systems to improve forecast capability for weather and water extremes in Western US and to enable more effective policies and practices in the region. CW3E aims to revolutionize the physical understanding, observations, predictions/projections of extreme events in Western North America at different time scales from days to decades, and their impacts on floods, droughts, hydropower, ecosystems and economy. CW3E practices [UCSD Principles of Community](#) to create a climate of fairness, cooperation, and professionalism.

This position is supported by NOAA's [Cooperative Institute for Research to Operations in Hydrology \(CIROH\)](#) program, as well as CW3E's [Forecast Informed Reservoir Operations \(FIRO\)](#) program. CIROH is a national consortium committed to advancing water prediction - the forecasting of streamflow and its extremes (e.g., floods/droughts). FIRO is a reservoir-operation strategy that uses enhanced monitoring and improved weather and water forecasts to inform decision making to selectively retain or release water from reservoirs to optimize water supply reliability and environmental co-benefits and to enhance flood-risk reduction.

The position will work closely with [Dr. Ming Pan](#) and various teams at CW3E. Applicants should be self-motivated and hard-working. Good written and verbal communication skills, including the ability to produce scientific publications and presentations and meet project milestones are required. The ideal candidate would have experience with hydrologic modeling, ensemble forecasting, and flood/drought analysis. Strong analytical backgrounds with a Ph.D. in meteorology, hydrology or environmental or civil engineering is preferred. Programming experience working in a Linux/Unix environment with experience in scripting languages such as Python and R as well as in supercomputing is desired.

The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability, age, protected veteran status, gender identity or sexual orientation. Position will remain open until filled.