

Subseasonal-to-Seasonal (S2S) Post-Doctoral Position
Center for Western Weather and Water Extremes (CW3E)
Scripps Institution of Oceanography, University of California San Diego

Location: La Jolla, California.

To apply: Send CV, cover letter, and three references to Mike DeFlorio (mdeflorio@ucsd.edu).

Deadline: Position is available immediately, but applicants will be considered until the position is filled.

The Center for Western Weather and Water Extremes, (CW3E; cw3e.ucsd.edu) is a research and applications center established in 2014 at the Scripps Institution of Oceanography by its Director, Dr. F. Martin Ralph. CW3E focuses on the physical understanding, observations, and predictions of extreme weather and water events to support effective policies and practices to improve resilience in the Western U.S. CW3E carries out its goals with a diverse network of research and operational partners at several other institutions across the U.S. and internationally. Individuals will be joining a group of several existing Postdoctoral scholars and graduate students, and a number of experienced faculty, researchers, and staff at Scripps who are involved with CW3E.

CW3E seeks a Postdoctoral researcher with a background in subseasonal-to-seasonal (S2S) prediction to develop novel methods for the prediction of weather parameters as precipitation, atmospheric river-related quantities (e.g., Integrated Water Vapor Transport – IVT), temperature, snow accumulation, or freezing level over the Western U.S. at S2S lead times (2-week to 6-month lead). The successful candidate will develop novel approaches based on machine learning methods (e.g., purely statistical, neural network based, and hybrid statistical dynamical) and leveraging existing large ensemble climate model and dynamical ensemble model output to significantly improve both deterministic and probabilistic S2S prediction of IVT and precipitation over the western U.S. Close collaboration with the CW3E Machine Learning Team is encouraged for this position.

Applicants should have 0-2 years of Postdoctoral experience or be nearing completion of their Ph.D. (estimated within 6 months) and 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. Strong analytical backgrounds with a Ph.D. in computer science, atmospheric science, meteorology, climate science, hydrology, statistics, or environmental engineering is preferred. Programming experience working in a Unix environment with experience in scripting languages such as Python, R, or Matlab is highly desirable, along with experience using common machine learning software (Tensorflow, Keras, CNTK, PyTorch, Scikit-Learn, etc.) on cloud computing environments (AWS, Azure, etc.). Successful applicants should be comfortable working independently with large code libraries and databases, utilizing large meteorological data sets, and producing visualizations.

Per normal Postdoctoral appointment policies, all positions are envisioned as being initially for 1-year, with extension possible contingent upon performance and availability of funding. The University of California San Diego is an Affirmative Action / Equal Opportunity Employer (AA/EOE).