CPAESS Discovery Seminar



Improving Probabilistic Storm Surge Guidance: Reconciling Physical Realizations with Limited Observations

DATE: **Wednesday, November 18, 2026**

TIME: **11:00 AM – 12:00 PM MT** (VIRTUAL)

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Because storm surge continues to be among the most hazardous threats posed by tropical cyclones, enhancing both forecast guidance and hazard communication remains a critical priority. To convey real-time storm surge risk, forecasters at the National Hurricane Center (NHC) utilize the Probabilistic Storm Surge (P-Surge) model. This ensemble system generates tropical cyclone forecasts using the official forecast from NHC with realistic variations in storm track, intensity, and structure based on historical forecast error distributions. This presentation will discuss the current efforts and key challenges in refining these statistical realizations to better quantify meteorological uncertainty.

Ben Trabing serves as an associate editor for the American Meteorological Society's Weather and Forecasting journal and is an active member of the AMS community.

SPEAKER

Benjamin Trabing, Ph.D.

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