Early Career Faculty Innovators Seminar Series

Computational Approaches to Current Challenges in Coastal Engineering

Talea Mayo, University of Central Florida

Thursday, June 27, 2019, 12:00 pm – 1:30 pm

FL2-3107

Join remotely by Hangouts Meet: meet.google.com/npz-acve-zyv

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Abstract: Coastal environments lie at the dynamic intersection of physical processes, the built environment, and human and marine life. However, these environments are also plagued by a number of natural hazards including hurricane storm surges and coastal erosion. It is expected that the implications of these hazards will be exacerbated by climate change, and computational modeling provides a unique approach to better understand potential impacts. In this talk, I will discuss recent computational advances in coastal engineering research, including the development of hurricane storm surge models, new approaches to flood risk assessment, and potential solutions to coastal erosion.

Biography: Talea Mayo is a nationally recognized computational mathematician, with expertise in the development and application of numerical models. She specializes in coastal ocean modeling, with interests in tides, waves, hurricane storm surges, and flood risk analysis. She has expertise in statistical data assimilation methods for state and parameter estimation of dynamical systems. She has also done work assessing wave energy and its impacts on coastal erosion. Currently, she is an Assistant Professor in the Department of Civil, Environmental, and Construction Engineering and a member of the National Center for Integrated Coastal Research at the University of Central Florida.

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