



Hurricane Storm Surge Risk Analysis to Inform the Development of Structures of Coastal Resilience

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In this work, we use a physically based assessment to estimate the risk of hurricane storm surge at four locations along the U.S. North Atlantic coast. Storm surges are simulated using a hydrodynamic model forced by the wind and pressure fields of synthetic hurricanes. The hurricanes are generated from a statistical-deterministic model, which uses climate data as input. This approach allows us to assess the risk for both current and projected climate conditions.

Biography

Talea Mayo grew up in Denver, Colorado. Upon graduating high school she left to attend college at Grambling State University, where she majored in mathematics and minored in Biology. She received her M.S. and Ph.D. in Computational and Applied Mathematics from the University of Texas at Austin. Her research interests include statistical data assimilation, hurricane storm surge modeling, and storm surge risk analysis.