

Workshop on Coastal Observation and Modeling Systems
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Jon Derek Loftis

Assistant Research Scientist, Virginia Institute of Marine Science, College of William & Mary
Dr. Derek Loftis is an Assistant Research Scientist working in the Center for Coastal Resources Management and the VA Commonwealth Center for Recurrent Flooding Resiliency at the Virginia Institute of Marine Science (VIMS). Dr. Loftis graduated with a Ph.D. in Marine Science in 2014 from VIMS at the College of William and Mary upon completing his dissertation focusing on street-level flood forecasting in New York City during 2012 Hurricane Sandy.

Dr. Loftis' hydrodynamic modeling research at VIMS focuses on: (1) [development of numerical simulations](#) and flood forecasts for regions prone to flood damage, (2) validation of model accuracy [using citizen science](#), remote sensing observations, and (3) [engineering solutions to enhance adaptability](#) to future flood events to protect human life and valuable infrastructural assets. Dr. Loftis teaches remote sensing and geographic information systems classes at the College of William & Mary, and he is the project lead and a developer of the hydrodynamic model used in the NIST-funded [StormSense Project](#) in the Greater Hampton Roads Region of Tidewater Virginia, an inundation forecasting research initiative to enhance emergency preparedness for flooding resulting from storm surge, rain, and tides.