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Clint Dawson* (clint@ices.utexas.edu), Institute for Computational, Engineering and Sciences, University of Texas, Austin, TX 78712. *Modeling Near-Shore and Coastal Processes and Extreme Events.*

We will discuss various modeling activities related to modeling near-shore and coastal processes. The research is motivated by studies of hurricane storm surges and the recent oil spill in the Gulf of Mexico. Topics to be discussed will include computational forecasting and hindcasting of storm surge, modeling of sediment transport, simulating flow through vegetative regions such as marshes and wetlands, and wave-current interaction. We will also discuss the coupling of hydrodynamics with particle tracking to model the Deepwater Horizon Oil Spill in near-shore environments (Received September 22, 2010)