Multidisciplinary **S**imulation, **E**stimation, and **A**ssimilation **S**ystems

Seminar Series

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Predicting Estuarine Transport in Galveston Bay - Challenges with Modelling a Complex Real-World System

Abstract: The estuaries in the Gulf of Mexico are generally broad, shallow with complex shore line geometries and relatively narrow passages into the Gulf. The physical dynamics of these systems are influenced by not just the tides, but also seasonally variable wind, freshwater inflows and surface heating and cooling. The variability of all physical variables are spread over a broad spectrum making modeling these processes particularly challenging. Here I will give a general background on the hydrodynamic transport processes in Galveston Bay, TX, and discuss the approach, and challenges, to modeling such a complex estuarine system. This work is motivated by the need to develop an accurate prediction system for the transport of oil and other contaminants in the bays and estuaries along the Gulf of Mexico coast.

Thursday, June 6, 2013

11:00AM; Rm. 5-314

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