



**“OBSERVATIONAL AND MODELING STUDY OF OCEAN CIRCULATION, AIR-SEA INTERACTIONS, AND BIOGEOCHEMICAL PROCESSES OFF THE U.S. EASTERN SEABOARD AND GULF OF MEXICO COAST”**

**RUOYING HE**

North Carolina State University

**Monday, February 3, 2014**

3:30 PM

***Room 1202, Engineering and Computational Sciences Building***

Abstract

Quantifying the coastal ocean response to climate changes requires us to first define the intrinsic coastal ocean variability on synoptic, seasonal and interannual time scales at the present time. Fundamental scientific questions to be addressed include: 1) what are the synoptic variability, seasonal characteristics, and interannual variations of coastal circulation; 2) what are the processes that lead to the large exchange of heat, salt, sediment, nutrient and carbon on the shelf; and 3) how does coastal circulation variability influence marine ecosystems? The talk will present some of my group's efforts and findings on using *in situ* observations and coupled numerical models to understand coastal circulation dynamics, air-sea interaction, and biogeochemical processes off the U.S. eastern seaboard and Gulf of Mexico coast.

Biography

Ruoying He received a Ph.D. in Physical Oceanography from the University of South Florida. He is a Professor of Oceanography in the Department of Marine, Earth and Atmospheric Sciences at North Carolina State University and an adjunct scientist of Woods Hole Oceanographic Institution. His research interests include coastal circulation dynamics, numerical modeling and data assimilation, biophysical interactions, and air-sea interactions.

*Reception before seminar at 3:00 PM*