CURRICULUM VITAE

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TOOLS

ROMS

ROMS is an open-source, community ocean model. ROMS uses a horizontal, curvilinear C-grid and a stretched vertical coordinate. In addition to the core hydrodynamic engine, ROMS has many additional packages for calculating biogeochemical processes, sediment transport.

Python

Python is a high-level scripting language, similar to perl or matlab. Python has powerful numerical computing packages, primarily based on numpy/scipy that make it ideal for scientific computation and analysis. For visualization, I use the matplotlib package. In many ways, Python is as simple to learn and as powerful MATLAB, both in terms of computational ability and speed as well as visualization. However, Python is based on a more powerful, object-oriented programing language.   For more information, see the Python page.

Employment

Post-doctoral Fellow, Dalhousie University, April 2015 -

Education

Ph.D. Physical Oceanography, Texas A&M University, March 2015

B.A.   Marine science, Ocean University of China, 2009

Research Interests

Regional numerical modeling
Continental shelf dynamics
Estuaries and river plumes
Data Processing Methods
Observational Oceanography and Ocean Observing Systems
Hypoxia of the northern Gulf of Mexico

Publications and Honors:

W. Zhang, R. D. Hetland, S. F. DiMarco and K. Fennel, Predicting stratification over the Texas-Louisiana shelf, under review.

W. Zhang, R. D. Hetland and S. F. DiMarco, Processes controlling mid-water column oxygen minima over the Texas-Louisiana shelf, *J. Geophys. Res.*, accepted.

Z. Rong, R. D. Hetland, W. Zhang and X. Zhang, Current-wave interaction in the Mississippi-Atchafalaya River plume on the Texas-Louisiana shelf, *Ocean Modelling*, 84:67-83.

W. Zhang, R. D. Hetland, An idealized study of a convergent flow within the bottom boundary layer and subsequent bottom material upward flux, in prep.