



**Speaker:** Edward Bensman  
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Wednesday, July 25, 2012  
3:00 PM  
258 Hurley Hall

**Title:** Numerical Methods in Hurricane Modeling

**Abstract:**

Real-world physical problems, such as Hurricane Modeling, involve the solution of a set of nonlinear PDEs using numerical methods. This talk describes the numerical techniques used in hurricane modeling including the solution of the fully compressible, nonhydrostatic equations in an Eulerian framework with a time-split integration technique using 3rd order Runge-Kutta method. The software framework supporting the numerics is also described and model simulations of Hurricane Katrina (2005) and Tropical Storm Debby (2012) are shown.