1107-76-226 **Nathan Glatt-Holtz*** (negh@vt.edu). *Numerical Analysis of Stochastic Partial Differential Equations in Fluids.*

We will discuss some recent results concerning the numerical analysis of the stochastic Navier-Stokes Equations and the Primitive Equations, an important model in Geophysical Fluid Dynamics. We consider both explicit and implicit schemes for these systems and develop conditions for stability (in the sprirt of Courant-Friedrichs-Lewy) for the explicit case. Convergence results on finite time intervals and for long time horizons (through statistically stationary states) are established. This is joint work with Roger Temam and Chuntian Wang (IU). (Received January 18, 2015)