

1077-VG-2158 **Chris G. Wake*** (cgwake@asu.edu). *Skeletons of Lagrangian Transport in Hurricane Katrina*. Preliminary report.

Forecasts for atmospheric hazards are best generated by high resolution regional atmospheric models such as the Weather Research and Forecasting system (WRF). In this talk, we discuss the modeling of Hurricane Katrina using real data from WRF. This data allows the use of Lagrangian analysis on the hurricane, locating Lagrangian Coherent Structures (LCS) which characterize particle motion within the flow. LCS are revealed with Finite Time Lyapunov Exponents. The Lagrangian skeleton of the flow is then outlined by locating the ridges of maximum FTLE value. (Received September 21, 2011)