

1077-VG-2157 **Tim Lai*** (tim.lai@asu.edu). *Lagrangian Transport Patterns for Radioactive Particles after Fukushima*. Preliminary report.

Using data from the Weather Research and Forecasting Model (WRF), which uses real atmospheric data, we analyze Lagrangian transport of inertial particles of different sizes across the Pacific Ocean after the Fukushima disaster. The results allowed us to identify and distinguish features that control transport patterns, known as Lagrangian Coherent Structures for inertial, radio-active particles. We have studied the Lagrangian Coherent Structures associated with realistic aerosols and have found that the evolution of the particles' trajectories depend on their sizes in a predictable fashion. (Received September 21, 2011)