## 1125-VP-2271 **Joy M D'Andrea\*** (jdandrea@usf.edu), 8350 N. Tamiami Trail, Sarasota, FL 34243. Modeling Hurricanes using Exploratory Factor Analysis in conjunction with Non-Response Analysis and Logistic Regression.

Exploratory factor analysis (EFA) is used to determine the number of latent variables that are needed to explain the correlations among a set of observed variables. In this study, the latent variables are the meteorological measures such as the location of a storm, wind speed and pressure. In this talk, we will demonstrate how EFA can be used to determine the distinct factors that house the terms that explain the variance among the co-dependent variables and how non-response analysis can be applied to model the non-functional relationship that exist in a dynamic system. Further analysis investigates the probability of storms being present in the Atlantic Basin using logistic regression and atmospheric conditions recorded at a fixed location. (Received September 20, 2016)