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Joey L Hart* (jlhart3@ncsu.edu), **Julie Bessac** and **Emil Constantinescu**. *Global sensitivity analysis for statistical model parameters.*

In this talk a new method is proposed to perform global sensitivity analysis (GSA) on the parameters of a statistical model. Such analysis is useful for improving model accuracy, encouraging model parsimony, and reducing computational complexity. Statistical models pose challenges to traditional GSA tools because of parameter correlations, multivariate model outputs, and model stochasticity. The proposed method utilizes problem structure to address these challenges in a computationally efficient manner. The motivating wind energy application will be discussed and numerical results given. (Received August 25, 2017)