

1106-VI-2186 **Pallavi Sawant*** (pallavirs@ksu.edu), Department of Statistics, Kansas State University, 101 Dickens Hall, Manhattan, KS 66506, and **Nedret Billor**. *Robust Principal Components For Multivariate Functional Data*.

In this study, robust multivariate functional principal component analysis (RMFPCA) method is proposed to achieve dimension reduction and to develop tools for detection of outliers in a functional dataset. We extended the method of M-type smoothing spline estimators for principal functions by Lee et al. (2013) to multivariate functional data. Simulation study and real world example are provided to illustrate the numerical performance of the proposed method. (Received September 16, 2014)