

**University of Dayton
Department of Mathematics
Colloquium**

Revealing Sparse Signals In Functional Data

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Abstract:

A novel statistical method to reveal the signal in data consisting of a sample of curves, where each curve is regarded as a realization of a stochastic process will be discussed. In this framework, existing methods for inference include smoothing splines and kernel estimates. Our method successfully adapts to the sparsity of the signal. The methodology involves thresholding, and the threshold level depends on the sources of variability that exist in this type of data. An application of the method to estimate the mean volatility of stock quotes in intra-day trading will be presented.

Date: Monday February 11, 2008

Place: University of Dayton, Science Center

Time: Refreshments at 2:30 PM in Science Center 313, Talk at 3:00 PM in Science Center 224