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## RUTGERS UNIVERSITY DEPARTMENT OF STATISTICS AND BIOSTATISTICS www.stat.rutgers.edu

## Seminar

Speaker: Professor Juan A. Cuesta-Albertos Departamento de Matemáticas Universidad de Cantabria, Spain

Title: Using random projections to analyze functional data

- Time: 3:20 4:20pm, Wednesday, March 12, 2014
- Place: 552 Hill Center

## Abstract

In this talk I will present a method that uses a random one-dimensional projection to transform a problem in a functional setting to the same problem in the one-dimensional setting. This transformation can yield a wide range of statistical methods for solving one-dimensional transformations of the functional data problems and providing solutions to those problems. This is particularly useful, in light of the scarcity of direct inference methods in the functional setting.

I will also present some applications of this transformation, including testing the normality of a sample or process, testing the equality of two distributions, the construction of a new functional depth, the classification of data, and a test for the linear functional model.

\*\* Refreshments will be served @2:50pm in Room 502 Hill Center \*\*