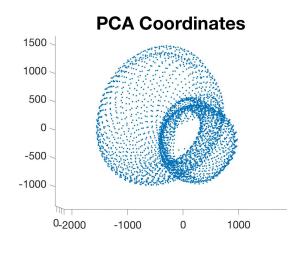
## Student Research Talks (StReeTs)

Mason Experimental Geometry Lab (MEGL)

## Kernel Methods in Dimensionality Reduction

## Ryan Vaughn

Department of Mathematics Sciences George Mason University



## Abstract

Dimensionality reduction is a necessary step in many scientific and industrial applications. Linear methods such as Principal Component Analysis (PCA) and others are convenient for their computational efficiency, but often relevant features of high dimensional data are nonlinear in nature. The so-called "kernel trick" allows for many linear dimensionality reduction techniques to be adapted to nonlinear applications by mapping data first into an infinite-dimensional Hilbert space of functions. This talk will discuss kernel-based techniques in dimensionality reduction.

Date: Friday, September 7, 2018

Time: 2:30 pm - 3:20 pm Place: Exploratory Hall 4106

Pizza and soda will be served at the presentation.

For further information or for special accommodations, please contact Sean Lawton via email at slawton3@gmu.edu or drop by the MEGL.