



JOHNS HOPKINS  
BLOOMBERG  
SCHOOL of PUBLIC HEALTH

*Department of Biostatistics*

# BIOSTATISTICS SEMINAR

## Algebraic, Sparse and Low-Rank Subspace Clustering

Rene Vidal, Associate Professor of Biomedical Engineering  
Center for Imaging Science, Johns Hopkins University

### *Abstract*

In the era of data deluge, the development of methods for discovering structure in high-dimensional data is becoming increasingly important. Traditional approaches often assume that the data is sampled from a single low-dimensional manifold. However, in many applications in signal/image processing, machine learning and computer vision, data in multiple classes lie in multiple low-dimensional subspaces of a high-dimensional ambient space. In this talk, I will present methods from algebraic geometry, sparse representation theory and rank minimization for clustering and classification of data in multiple low-dimensional subspaces. I will show how these methods can be extended to handle noise, outliers as well as missing data. I will also present applications of these methods to video segmentation and face clustering.

**The Johns Hopkins Bloomberg School of Public Health  
Department of Biostatistics, Monday, September 9, 2013, 12:15-1:15  
Room W4030, School of Public Health (Refreshments: 12:00)**

**We request that lunch be eaten before or after seminar and not during the seminar**

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