CASTS TALKS

Special Program in Applied Mathematics and Applied Mechanics

Numerical Linear Algebra for Subspace Learning

2013 - 12 - 05 (Thu.) 15:30 - 16:20 R102, Astronomy and Mathematics Building

Modern data are most commonly described by an object-by-feature matrix where the rows correspond to objects, which may be genes, tweets, movies, etc, and the columns correspond to measured features, which may be microarrays, keywords, ratings, etc. Such a matrix may often be viewed as representing a subspace spanned by its rows or its columns. Comparing different data then often boils down to measuring distances (and angles) between subspaces. This is classical if the subspaces are of the same dimension but presents difficulties when they are not. In this talk, we will discuss how one may address this problem.

The first part of this talk is joint work with Lizhen Lin, Sayan Mukherjee, and Brian St. Thomas of Duke. The second part is joint work with Ke Ye of Chicago.

