“Embracing Statistical Challenges in the Information Technology Age”

MONDAY February 14, 2005 at 4:00 PM
133 Eckhart Hall, 5734 S. University Avenue
Refreshments following the seminar in Eckhart 110.

ABSTRACT

Information technology advances are making data collection possible in most if not all fields of science and engineering and beyond. Statistics as a scientific discipline is challenged and enriched by the new opportunities resulted from these high-dimensional data sets. In this talk, I will use several research projects to demonstrate how these IT challenges are met by finding new applications of traditional statistical thinking and methods and by incorporating compression and computation considerations into statistical estimation. In particular, I will cover cloud detection over the polar region, microarray image compression for statistical analysis, and L2 boosting as a computationally efficient method for sparse nonparametric regression model fitting.