Discrete Mathematics Seminar

Time: Friday, 4 September 2015, 2:00-3:00 PM
Room: 237 Derrick Hall
Title: Convergence of Correlation Matrix and its Applications in Clustering
Speaker: Dr. Byron Gao, Department of Computer Science

Abstract:

The correlation matrix M of n random variables X_1, ..., X_n is an $n \times n$ matrix whose i,j entry is corr (X_i, X_j). We observe that iterative update of M by using R_1, ..., R_n (the n rows of M from last iteration) as X_1, ... X_n generally leads to convergence of M, where M is filled with 1's and -1's. We show that this convergence has important practical applications in clustering.

Bio:

Byron J. Gao is an associate professor of computer science at Texas State University. He joined Texas State in 2008, was a postdoctoral fellow at the University of Wisconsin in 2007-2008, and received Ph.D. in 2007 and B.Sc. in 2003 from Simon Fraser University. His research spans several related fields of data mining, databases, information retrieval, and bioinformatics.