SCIENCE SEMINAR

Thursday, December 20 - Carson Taylor Hall 322

Mr. Xiyuan Liu

Graduate Teaching Assistant, North Dakota State University
Statistics Faculty Candidate

"Conditional Random Fields with Lasso and Its Application to the Classification of Relationships Between Plant Genes Expression Level and Fungus Genes"

The classification problem of Gene Expression Level is a major research area in both statistics and gene expression analysis. There are several classical methods to solve the classification problem, but classical models require that the observations in the dataset should fit the assumption of independence. This assumption is not suitable for the gene expression analysis. To solve the classification problem of Gene Expression Level data, the Conditional Random Field (CRF) is introduced. Moreover, Least Absolute Selection and Shrinkage Operator (LASSO) penalty, a dimensional reduction method, is introduced to improve the CRF model.

Come at 3:30pm for refreshments, speaker at 4:00pm