Abstract:
Survival analysis is a statistical method for data analysis where the outcome variable of interest is the time to the occurrence of an event. It is applied in number of fields, such as medicine, public health, social science, and engineering. A semiparametric accelerated failure (AFT) time model is a log linear regression that directly relates the effect of explanatory variables on the survival time. This characteristic allows an easy interpretation of the results. Nevertheless, the semiparametric AFT model has not been as widely used as it should be due to lack of efficient and reliable computing algorithm to obtain both parameter estimates and their standard errors. The goal for this presentation is to introduce some recently developed inference procedures for semiparametric AFT models with both the rank-based approach and the least squares approach. For the rank-based approach, an induced smoothing technique and various sandwich variance estimator are proposed to improve computational efficiency. Weights are incorporated to handle missing data needed as in case-cohort studies. With the rank-based estimator as initial value, the generalized estimating equation approach is used as an extension of the least squares estimation to the multivariate case. With these procedures, we aim to bring AFT model into routine survival analysis.

Sy Han is a candidate for a faculty position in our department.

Thursday, February 28, 2013
4:00 pm
Refreshments will be provided at 3:45.
Solon Campus Center 130
EVERYONE IS WELCOME

The University of Minnesota Duluth is an equal opportunity educator and employer.