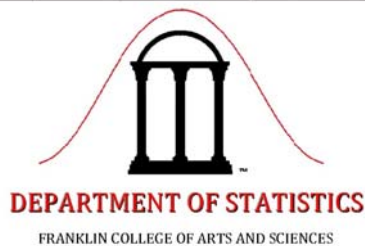


THE UNIVERSITY OF GEORGIA



The University of Georgia
Department of Statistics

Colloquium Series

Lianming Wang
Department of Statistics
University of South Carolina

“Bayesian semiparametric regression analysis of interval-censored data with monotone splines”

Interval-censored data naturally arise in many fields such as aids clinical trial studies and follow-up medical studies. The main feature is that the failure time of interest is not observed exactly but is known to fall within some interval. Regression analysis on interval-censored data is challenging due to the complex data likelihood and the censoring mechanism producing such data. In this talk, I will review the commonly used semiparametric regression models and the existing methods in the literature and will focus on our newly proposed Bayesian methods under several regression models. A common feature of these methods is that monotone splines are used to model the unspecific increasing function in each model. Our methods allow simultaneous estimation of the regression coefficients and the baseline survival function, provide smooth estimates of survival functions, and do not require a large sample size. Unlike existing Bayesian survival methods, our methods do not require imputing unobserved failure times, nor involve complicated Metropolis-Hastings steps. In addition, Our methods are easy to implement and thus are expected to be widely used by non-experts who wish to analyze interval-censored data.

For more information,
please contact:
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Thursday, September 22nd, 2011

3:30 PM at 306 Statistics Building

Refreshments will be immediately after the talk in The
Cohen Room, room 230, Statistics Building