

MICHIGAN STATE UNIVERSITY
Department of Statistics and Probability

COLLOQUIUM

Stephen Portnoy

Statistics Department
University of Illinois

The Jackknife's Edge: Inference on Censored Regression Quantiles

Tuesday, September 10, 2013
10:20 a.m. - 11:10 am
Refreshments 10:00 am
C405 Wells Hall

Abstract

For censored data, it is very common for the tail of the survival function to be non-identifiable because of the abundance of censored observations in the tail. Thus, if bootstrap methods are needed, they may perform poorly near the point of non-identifiability because of the variability in bootstrap samples. Since jackknife methods provide much less variability, they should provide better coverage in such cases.

In fact, various jackknife versions showed substantial improvement over bootstrap methods (near the point of non-identifiability) in a simulation experiment, and can be shown to be asymptotically justifiable. This provides a counterexample to the commonly held notion that bootstrap methods are better than jackknife methods, and suggests the possible superiority of jackknife methods for a variety of situations with missing data or other cases of partial identifiability.

To request an interpreter or other accommodations for people with disabilities, please call the Department of Statistics and Probability at 517-355-9589.