The University of Mississippi
Department of Mathematics

Statistics Seminar

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Title: Bootstrapping the Student t-Statistic

2:00 pm, Friday, April 29, 2016
Hume Hall 321

Abstract: Let $X_1 \ldots, X_n$, $n \geq 2$, be independent identically distributed random variables [r.v.s] and consider the Student t-statistic T_n based upon these r.v.s. Giné, Goetze and M (1997) proved that T_n converges in distribution to a standard normal r.v. if and only if X is in the domain of attraction of a normal r.v. and EX = 0. We shall show that roughly the same holds true for the bootstrapped Student t-statistics T_n^*. In the process we shall disclose all of the possible subsequential limit laws of T_n^*: The proofs introduce a number of amusing tricks that may be of independent interest. A conjecture related to a result of Peter Hall (1990) is posed. This talk is based on M and Q-M Shao (2001).