

STANFORD UNIVERSITY
DEPARTMENT OF STATISTICS
DEPARTMENTAL SEMINAR

4:15 p.m., Tuesday, October 16, 2001
Sequoia Hall Rm. 200
(Cookies at 3:45 in 1st Floor Lounge)

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Subsampling of Biased Statistics with application to the identification of locations of extremal points

We consider the application of bootstrap and subsampling to roots that involve biased statistics. A situation where such statistics frequently occur, is in nonparametric estimation and testing problems. Bootstrap usually fails in this context, since the bias is not approximated consistently. Subsampling, however often works. We investigate conditions under which subsampling works with biased statistics and consider applications both where the bias converges and diverges. We investigate in particular a statistic that is useful for identifying points where density and intensity functions achieve a maximum and for which the renormalized bias diverges. We apply this statistic to ship arrival data.