

$$S_t \circ c(h)(a_s)_{ti} c(s) + \mathfrak{S}_e m^i n(a_r)$$

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Asymptotics of permutation and bootstrap statistics for stable samples

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Time and Place: Friday September 7, 2007; 3–4 p.m.; LCB 219

Permutation and bootstrap statistics are effective tools for constructing critical values and improving the speed of convergence in various statistical procedures. In this lecture we investigate the behavior of these statistics in case of an i.i.d. sample with a stable distribution. We show that the partial sums of both the permuted and bootstrap sample converge weakly, but the limit distributions, instead of a stable limit expected naively, are random distributions depending on the actual sample used. We give simple series representations of the random limits.