1053-62-63 **Soumendra Nath Lahiri*** (`snlahiri@stat.tamu.edu`), Dept of Statistics, 525J Blocker, College Station, TX 77845. *On pooled block bootstrap estimation.*

The choice of appropriate block length is a critically important issue in construction of block bootstrap estimators. Typically, one chooses a block size that minimizes the mean squared error (MSE) of the estimator. However, in many cases, the block bootstrap estimator is very sensitive of the choice block size and may change dramatically even for a small change in block length. In this paper, we construct pooled bootstrap estimators by combining estimates for several block sizes and investigate asymptotic properties of such estimators. It is shown that for a large class of pooled bootstrap estimators, the MSE optimal rate can be attained, without the need to preselect an optimal block size. Further, we show that with proper choice of the weights, the pooled bootstrap method can achieve a better rate than the original block bootstrap method. Results from a simulation study are also presented to illustrate finite sample properties of the proposed method.

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