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BOOTSTRAP IN MARKOV-SEQUENCES BASED ON ESTIMATES OF TRANSITION DENSITY*

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Abstract. We develop a Bootstrap method in Markov-sequences. This method is based on kernel estimates of the transition density of the Markov-sequence. It is shown that the Bootstrap estimate of the variance of a statistic which is a function of means, is consistent. We also show that the Bootstrap distributions of mean-like statistics and von Mises differentiable statistics converge to appropriate normal distributions. A few simulation results are reported to illustrate the discussion.

Key words and phrases: Variance estimation, Bootstrap, non-parametrics, Markov-sequences.