SADDLEPOINT APPROXIMATIONS IN RESAMPLING ANALYSIS

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Abstract. The technical validity of the saddlepoint technique for approximating the resampling distribution of the sample mean of i.i.d. and non-i.i.d. random variables is examined. The relative errors are shown to occur at the same rate as in parametric analysis. Discreteness in resampling problems is accounted for. The uniformity of the errors is also explored.

Key words and phrases: Asymptotic expansion, bootstrap, discreteness, randomization.