

# Asymptotic concentration probabilities of the Pitman estimator and weighted estimators in the non-regular case

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For a family of truncated distributions with a location parameter, the asymptotic expansion of the Pitman estimator and its asymptotic variance are given by Akahira, Ohyauchi and Takeuchi (2007, *Metron* 65, 113-127). In this article, the asymptotic distributions of the Pitman estimator and weighted estimators are derived, and their asymptotic concentration probabilities are also computed. Further the asymptotic comparison of their estimators for some truncated distributions is discussed.

Key Words: Truncated distributions, Asymptotic expansion, Asymptotic distribution