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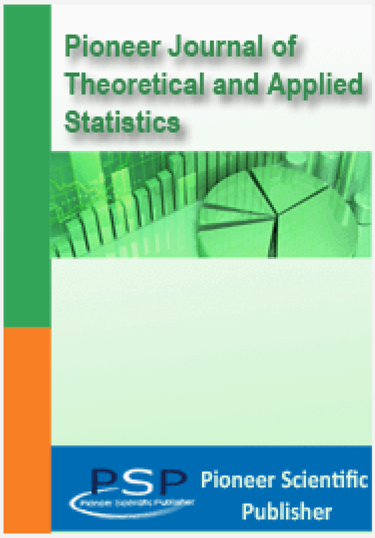

CONFIDENCE REGIONS FOR TWO-PARAMETER ESTIMATION; IMPROVING NORMAL APPROXIMATION

Jan Vrbik

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Abstract

We show how to construct accurate confidence regions for two parameters of a distribution, based on the Edgeworth expansion of the bivariate sampling distribution of the corresponding estimators. We provide an explicit example of the procedure using Weibull distribution.

Keywords and phrases: Edgeworth series, cumulants, confidence region, Weibull distribution.