

Bhattacharyya, Gouri K.

The asymptotics of maximum likelihood and related estimators based on type II censored data. (English) [Zbl 0576.62042](#)

J. Am. Stat. Assoc. 80, 398-404 (1985).

Summary: Some simple procedures are provided for establishing the asymptotic normality and uniform strong convergence of a class of functions that arise in the context of estimating parameters from a type II censored sample. These lead to an elementary yet rigorous treatment of the asymptotic properties of maximum likelihood estimators based on type II censored data.

Further applications include the treatment of asymptotics of some modified maximum likelihood (MML) estimators. In particular, conditions are provided for the consistency and limiting normality of the MML estimators of *K. G. Mehrotra* and *P. Nanda* [*Biometrika* 61, 601-606 (1974; [Zbl 0292.62023](#))], and the asymptotic efficiencies of these estimators are evaluated.

MSC:

- [62F12](#) Asymptotic properties of parametric estimators
- [62E20](#) Asymptotic distribution theory in statistics
- [62N05](#) Reliability and life testing
- [62G20](#) Asymptotic properties of nonparametric inference

Cited in **61** Documents

Keywords:

life-test; asymptotic normality; uniform strong convergence; type II censored sample; maximum likelihood estimators; modified maximum likelihood

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