

DISCRIMINATION BETWEEN ODD WEIBULL AND WEIBULL DISTRIBUTIONS

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- **ABSTRACT:** *Discrimination of embedded distributions is usually made via likelihood ratio, Wald and score statistics, whose, under the null hypothesis, have asymptotically chi-squared distribution with d degrees freedom, where d indicates the difference between the number of free parameters of the tested distributions under the null and alternative hypotheses. In this paper it is conducted Monte Carlo simulation studies in order to evaluate the power of these tests when the interest lies in discriminating the Odd Weibull distribution from the Weibull one. The Odd Weibull distribution was recently proposed by Cooray (2006) being defined by a scale parameter and two other parameters that govern the behavior of the density and hazard functions. The Odd Weibull distribution can accommodate unimodal and bathtub hazard functions. According to the parameter values the Odd Weibull distribution had the Odd exponential, the Weibull and the exponential as particular cases.*
- **KEYWORDS:** *Odd Weibull distribution; Hazard rate function, power; likelihood ratio test; Wald test; score test.*

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