

# **Simultaneous Confidence Intervals for All Differences of Variances of Log-Normal Distributions**

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**Abstract.** In this paper, simultaneous confidence intervals for all differences of variances of log-normal distributions are proposed. Our approaches are based on generalized confidence interval (GCI) approach and computational approach. Simulation studies show that the GCI approach has satisfactory performances for all cases. However, the computational approach is recommended for all cases of same standard deviations otherwise the GCI approach is recommended. Finally, a numerical example is given to illustrate the advantages of the proposed approaches.