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Estimating the population coefficient of variation by confidence intervals

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Several researchers considered various interval estimators for estimating the population coefficient of variation (CV) of symmetric and skewed distributions. Since they considered at different times and under different simulation conditions, their performances are not comparable as a whole. In this article, an attempt has been made to review some existing estimators along with some proposed methods and compare them under the same simulation condition. In particular, we have considered Hendricks and Robey, Mckay, Miller, Sharma and Krishna, Curto and Pinto, and also some bootstrap proposed interval estimators for estimating the population CV. A simulation study has been conducted to compare the performance of the estimators. Both average widths and coverage probabilities are considered as a criterion of the good estimators. Two real life health related data sets are analyzed to illustrate the findings of the article. Based on the simulation study, some possible good interval estimators have been recommended for the practitioners.