

## Using the Bootstrap for Problems Statistics

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**Abstract :** The bootstrap method based on the idea of exploiting all the information provided by the initial sample, allows us to study the properties of estimators. In this article we will present a theoretical study on the different methods of bootstrapping and using the technique of re-sampling in statistics inference to calculate the standard error of means of an estimator and determining a confidence interval for an estimated parameter. We apply these methods tested in the regression models and Pareto model, giving the best approximations.

**Keywords :** bootstrap, error standard, bias, jackknife, mean, median, variance, confidence interval, regression models

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