

# Statistical Inferences on Different Types of Bivariate Pareto Distributions

by

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## Abstract

In this thesis work, we discuss different types of Marshal-Olkin form of bivariate Pareto distribution. We use EM algorithm and Bayesian estimation through slice cum Gibbs sampler to estimate the parameters. The thesis covers some innovative solutions for different problems related to implementation of EM algorithm and Bayesian estimation. We also analyze the interval estimation of the parameters both in frequentist and bayesian set up. Numerical results are shown to verify the performance of the algorithms. A real-life data analysis is also shown in each study for illustrative purposes.

