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# 二元极值分布混合模型的矩估计

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**摘要**　极值理论在各个领域得到了越来越多的关注和应用, 尤其是多元极值分布. 而矩估计是一种经典的参数估计方法, 计算简单且具有某些优良性, 本文给出边缘为标准指数分布的二元极值混合模型相关参数的矩估计及其渐近方差. 并将其与极大似然估计的渐近方差比较, 结果表明矩估计是一个较好的估计.

**关键词**　Copula, 二元极值分布, 混合模型, 矩估计, 渐近方差.

分类号

# Moment Estimation for a Bivariate Extreme Value Distribution in Mixed Model

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**Abstract** Extreme value theory has been wildly applied in many fields, especially the multivariate extreme value distributions. Moment estimation is a classical estimation method because of its simple calculations. The paper considers the bivariate extreme value distribution in mixed model with exponential margins. The estimator and asymptotic variance of the dependence parameter are given. We also compare moment estimation with a maximum likelihood estimation in finite sample size. The results indicate that moment estimation is good for all practical purposes.

**Key words** Copula, bivariate extreme value distribution, mixed model, moment estimation, asymptotic variance.

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