



A bivariate pseudo Gamma distribution with application to acid rain data

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Univariate and bivariate Gamma distributions are extensively used for statistical modeling in climatology. In this paper, a bivariate pseudo Gamma distribution is used to model the proportion of acidity and major ions in rain. The model parameters of the bivariate pseudo Gamma distribution are estimated by the maximum likelihood method. The plots of the distribution of the proportions are compared to the histograms of the observed data of the proportions of acidity and major ions in rain. The fitted pdf appears to follow the general pattern in the histograms closely.