

**A UNIFIED WEIGHTED FAMILY OF DISTRIBUTIONS WHICH CONTAINS  
THE SKEW-ELLIPTICAL FAMILY**

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*Abstract:* In this paper, we introduce a new family of multivariate distributions, called the *unified weighted family*, as a generalization to the skew-elliptical family. We study some properties of the proposed family and show that it subsumes many important subfamilies such as the families arisen from the selection and hidden truncation ideas. Although the proposed family is very general, we focus on the multivariate weighted normal family which is regarded as a promising candidate in statistical inference.

**2000 AMS Mathematics Subject Classification:** Primary: 62E15; Secondary: 62H10.

**Keywords and phrases:** Multivariate weighted normal distribution, unified weighted family of distributions, skew-elliptical family.

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