

# **Mixtures and Random Sums**

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*A brief review is given of the terminology used to describe two types of probability distribution, which are often described as "compound" and "generalized" distributions. In view of the confusion in terminology, it is suggested that these terms be discarded and that the more descriptive terms suggested by Feller, namely "mixtures" and "random sums", should be generally adopted. Some remarks on "contagious" models and related topics are made. Attention is drawn to the fact that a mixture may be regarded as a marginal distribution of a bivariate distribution and that a random sum may be regarded as a special type of mixture. General formulae for the mean and variance of a mixture and of a random sum are also given.*