A New Mixture of Pareto Distributions

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ABSTRACT

Mixture distributions play an important role in many studies in real time scenario. It has many applications in insurance risk theory, oil industry, reliability theory etc. Mixture distribution is a probability distribution of a random variable, derived from the convex combination of individual distributions as components of the random variable, with the corresponding proportion of each component called as the mixture weights.

In this talk, a new mixture distribution is proposed, using three Pareto distributions with different fixed proportions. The properties of the distribution are also derived and presented.

Keywords: Mixture distribution, Pareto distribution, Mixture weights, Moments.