

## A Methodology for Characterising the Tail Behaviour of a Distribution

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**Abstract :** Following a review of various approaches that are utilized for classifying the tail behavior of a distribution, an easily implementable methodology that relies on an arctangent transformation is presented. The classification criterion is actually based on the difference between two specific quantiles of the transformed distribution. The resulting categories enable one to classify distributional tails as distinctly short, short, nearly medium, medium, extended medium and somewhat long, providing that at least two moments exist. Distributions possessing a single moment are said to be long tailed while those failing to have any finite moments are classified as having an extremely long tail. Several illustrative examples will be presented.

**Keywords :** arctangent transformation, tail classification, heavy-tailed distributions, distributional moments

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