A Proposed Mechanism for Skewing Symmetric Distributions

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Abstract : In this paper, we propose a mechanism for skewing any symmetric distribution. The new distribution is called the deflation-inflation distribution (DID). We discuss some statistical properties of the DID such moments, stochastic representation, log-concavity. Also we fit the distribution to real data and we compare it to normal distribution and Azzlaini's skew normal distribution. Numerical results show that the DID fits the the tree ring data better than the other two distributions.