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A generalization of the skew-normal distribution: the beta skew-normal. (English)

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A new family of distributions (called beta skew-normal BSN), which is a special case of the beta generated distribution. Three generalizations of the skew-normal (SN) distribution are considered, including the two-parameter case. A new family of distributions (BSN) generalizes also SN. These distributions are flexible enough to support both unimodal and bimodal shape. This family arises when the distribution of order statistics of an SN distribution is considered. The class of BSN can be also generalized by the inclusion of the location and scale parameters.

Reviewer: Pavel Froněk (Praha)

MSC:

60E05 Probability distributions: general theory

62E15 Exact distribution theory in statistics

Cited in **2** Reviews
Cited in **9** Documents

Keywords:

Balakrishnan skew-normal; beta skew-normal; order statistics; skew-normal distribution

Software:

sn

Full Text: [DOI](#) [arXiv](#)

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