A NEW SKEW MODEL

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In this paper, we introduce a new class of skew-symmetric distributions which are formulated based on cumulated distributions of skew-symmetric densities. This new class is an extension of other skew-symmetric distributions that have already been studied. We give special attention to a family from this class that could be seen as an extension of the skew-generalized-normal model introduced by Arellano-Valle *et al* (2004). We study the main properties, stochastic representation, moments and extension of this new model.