Asymmetric Generalized Gaussian Distribution Parameters Estimation based on Maximum Likelihood, Moments and Entropy

Nafaa Nacereddine, Aicha Baya Goumeidane

Abstract : In this paper, we address the problem of estimating the parameters of Asymmetric Generalized Gaussian Distribution (AGGD) using three estimation methods, namely, Maximum Likelihood Estimation (MLE), Moment Matching Estimation (MME) and Entropy Matching Estimation (EME). For this purpose, these methods are applied on an unimodal histogram fitting of an image corrupted with AGGD noise. Experiments show that the effectiveness of each method comparatively to the other one depends on the variation range of the shape factor.