A SIMPLE PROCEDURE FOR FITTING TWO-COMPONENT NORMAL MIXTURE TO A GIVEN DATA SET

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We propose a procedure based on moments formatting two-component normal mixture curve to a given data set. We compare the proposed method to the one based on the maximum likelihood estimators and show that, in some situations, the proposed approach is better than the likelihood method. We then apply the method to several unimodal and bimodal known distributions and two real data sets and illustrate situations where the fit is good and situations where, although the data seem to be originated from a two-component normal mixture, there is no such mixture that fits the data well.