A Novel Weighted Likelihood Estimation With Empirical Bayes Flavor

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Abstract

We propose a novel approach to estimation, where a set of estimators of a parameter is combined into a weighted average to produce the final estimator. With the weights proportional to the likelihood evaluated at the estimators, the method can be viewed as a Bayesian approach with a data-driven prior distribution. Several illustrative examples and simulations show that this straightforward methodology produces consistent estimators comparable with those obtained by the maximum likelihood method.

References

1. MD.M. HOSSAIN AND T.J. KOZUBOWSKI AND K. PODGORSKI. A novel weighted likelihood estimation with empirical Bayes flavor. Comm. Statist. Sim. Comput. 47 (2018) 392-412.