A family of the estimators adjusting the maximum likelihood estimator by a higher-order term maximizing the asymptotic predictive expected log-likelihood is introduced under possible model misspecification. The negative predictive expected log-likelihood is seen as the Kullback-Leibler distance plus a constant between the adjusted estimator and the population counterpart. The vector of coefficients in the correction term for the adjusted estimator is given explicitly by maximizing a quadratic form. Examples using typical distributions in statistics are shown.

For the full results corresponding to this abstract, see Ogasawara (2017).

Reference