

Model Averaging for Poisson Regression

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Abstract : Model averaging is a desirable approach to deal with model uncertainty, which, however, has rarely been explored for Poisson regression. In this paper, we propose a model averaging procedure based on an unbiased estimator of the expected Kullback-Leibler distance for the Poisson regression. Simulation study shows that the proposed model average estimator outperforms some other commonly used model selection and model average estimators in some situations. Our proposed methods are further applied to a real data example and the advantage of this method is demonstrated again.

Keywords : model averaging, poisson regression, Kullback-Leibler distance, statistics

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020