

Boosting beyond the Mean: Model Building and Variable Selection in the GAMLSS Framework

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Generalized additive models for location, scale and shape (GAMLSS) are a flexible class of regression models that allow to model multiple parameters of a distribution function, such as the mean and the standard deviation, simultaneously. We discuss a boosting method to fit this class models. Variable selection and model choice are naturally available within this regularized regression framework. The package `gamboostLSS` implements the boosting method for GAMLSS models and is available from CRAN (<http://CRAN.R-project.org/package=gamboostLSS>).