

Moving Window Estimation Procedures for Additive Regression Function

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Abstract: The general additive regression function $b(x) = \sum b_j(x_j)$ is considered and subjected to nonparametric estimation. The method of estimation is inspired by the regressogram approximations to the components of regression function. The procedure using the moving window is then derived, it naturally generalizes to a kernel approach. The method can be applied to the likelihood-based models, in which the value of regression function is a parameter of likelihood of a response variable Y . Suggested moving window algorithm is a variant of Hastie and Tibshirani's [3] local scoring procedure. In order to discuss the quality of obtained results, the method is compared with the approximation by regression splines, treated successfully by Stone [6]. An example illustrates the solution for the logistic regression, the proportional hazard regression model is also examined.

Keywords:

AMS Subject Classification: