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**Additive regression model for stationary and ergodic continuous time processes.** (English)

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Summary: The main purpose of the present work is to introduce and investigate a simple kernel procedure based on marginal integration that estimates the regression function for stationary and ergodic continuous time processes in the setting of the additive model introduced by *C. J. Stone* [Ann. Stat. 13, 689–705 (1985; Zbl 0605.62065)]. We obtain the uniform almost sure consistency with exact rate and the asymptotic normality of the kernel-type estimators of the components of the additive model. Asymptotic properties of these estimators are obtained, under mild conditions, by means of martingale approaches. Finally, a general notion of the bootstrapped additive components, constructed by exchangeably weighting sample, is presented.

**MSC:**

- 62G08 Nonparametric regression and quantile regression
- 60G09 Exchangeability for stochastic processes
- 62G07 Density estimation
- 62G20 Asymptotic properties of nonparametric inference

Cited in 1 Document

**Keywords:**

additive model; consistency; ergodicity; kernel-type estimators; marginal integration; martingale differences; normality; regression function; stationarity

**Full Text:** DOI

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