

Nonparametric density estimation for reversed chaotic signals

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The purpose of the talk is to introduce a class of stationary nonmixing stochastic processes which satisfy a deterministic recurrence equation in reversed time and for which the estimation of the marginal density can be done at the same rate as in the situation where the data are independent and identically distributed. Practically, these processes arise mainly in the rigorous numerical synthesis of chaotic deterministic signals. Theoretically, they provide general examples of highly dependent stochastic processes for which various standard nonparametric statistical procedures are relatively well-behaved.

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