A time series model for a stochastic process restricted by fixed boundaries

by

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Abstract. In this paper we introduce a time series model that is capable of characterizing the dynamic behaviour of a discrete-time stochastic process whose realizations are restricted by fixed boundaries. Our framework also enables the modeller to estimate a model with implicit boundaries should they exist. The latter possibility may find application in modelling stock market returns, whereas the fixed boundaries model applies to exchange rates that fluctuate in a target zone. An application will be discussed.