

Transient Simulation Via Empirically-Based Coupling

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In this paper we consider the use of coupling ideas in efficiently computing a certain class of transient performance measures. Specifically, we consider the setting in which the stationary distribution is unknown, and for which no exact means of generating stationary versions of the process is known. In this context, we can approximate the stationary distribution from empirical data obtained from a firststage steady-state simulation. This empirical approximation is then used in place of the stationary distribution in implementing our coupling-based estimator. In addition to the empirically based coupling estimator itself, we also develop an associated confidence interval procedure.