

Statistical properties of a kernel-type estimator of the intensity function of a cyclic Poisson process

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Abstract

We consider a kernel-type nonparametric estimator of the intensity function of a cyclic Poisson process when the period is unknown. We assume that only a single realization of the Poisson process is observed in a bounded window which expands in time. We compute the asymptotic bias, variance, and the mean-squared error of the estimator when the window indefinitely expands.

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