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Poisson source localization on the plane: cusp case

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Abstract
This work is devoted to the problem of estimation of the localization of Poisson source. The observations are inhomogeneous Poisson processes registered by more than three detectors on the plane. We study the behavior of the Bayes estimators in the asymptotic of large intensities. It is supposed that the intensity functions of the signals arriving in the detectors have cusp-type singularity. We show the consistency, limit distributions, the convergence of moments and asymptotic efficiency of these estimators.

Keywords Inhomogeneous Poisson process · Poisson source · Sensors · Bayes estimators · Cusp-type singularity

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