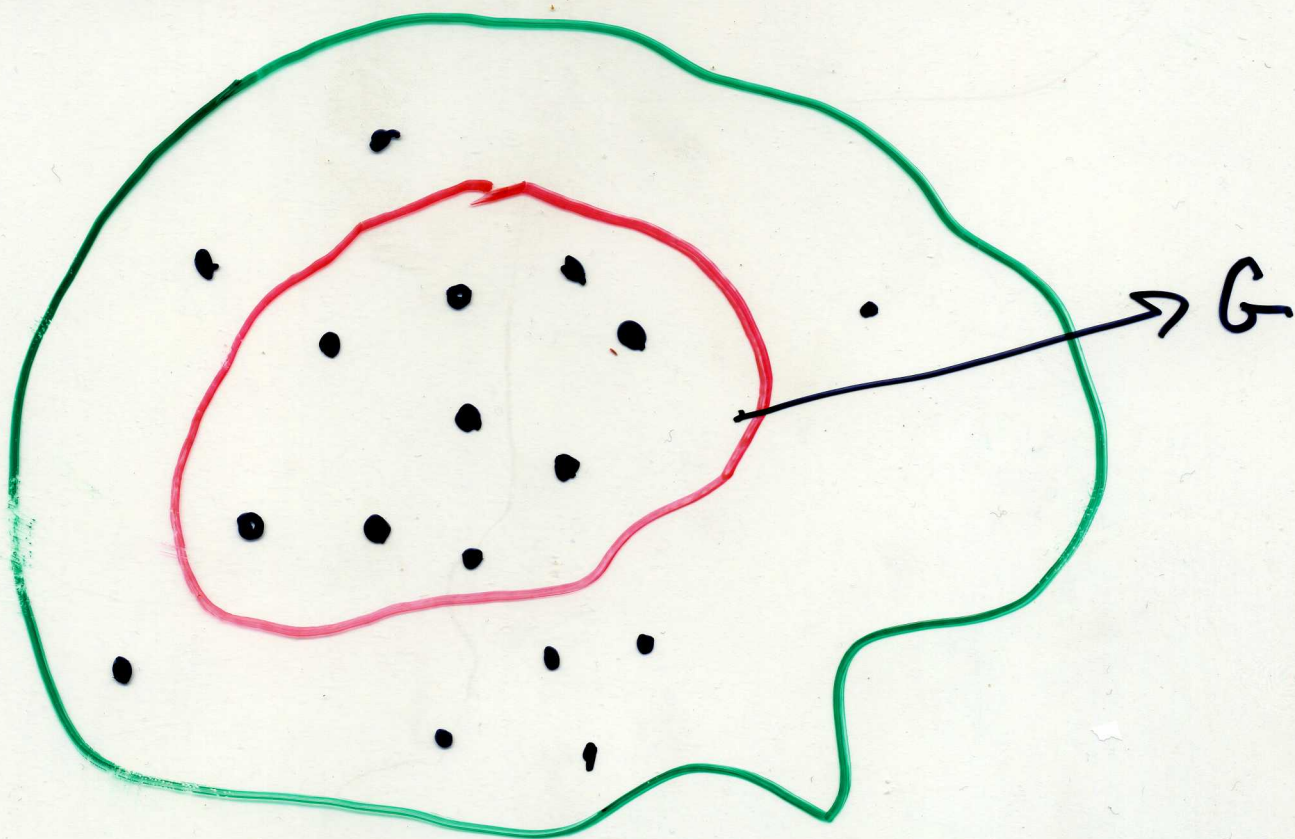


I. IBRAGIMOV

On the estimation of the intensity density of Poisson random fields

I. The problem

1. Observations. $\Pi_\varepsilon \subseteq G \subseteq \mathbb{R}^d$



the intensity density $\lambda_\varepsilon(x) = \frac{\lambda(x)}{\varepsilon}$

The problem: to estimate λ ,

asymptotic: $\varepsilon \rightarrow 0$

Estimates:

$$\bar{1}. \hat{\lambda}_\varepsilon(x) = \frac{1}{n_\varepsilon} \sum_{x_i \in \Pi_\varepsilon} K_\varepsilon(x; x_i)$$

$$1. \hat{\lambda}_\varepsilon = \sum a_\varepsilon K(a_\varepsilon(x - x_i))$$

$$2. \hat{\lambda}_\varepsilon = \sum_{j=1}^{N(\varepsilon)} \varphi_j(x) \left[\varepsilon \frac{1}{n_\varepsilon} \sum \varphi_j(x_i) \right]$$

