

國立政治大學統計學系 學術演講

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題目：Estimating Equations for Disease Mapping with
Spatial Zero Inflation

時間：民國 113 年 10 月 28 日 (星期一) 下午 1:30

地點：國立政治大學逸仙樓 050101 教室

摘要：

Spatial epidemiology often involves the analysis of spatial count data with an unusually high proportion of zero observations. While Bayesian hierarchical models perform very well for zero-inflated data in many situations, a smooth response surface is usually required for the Bayesian methods to converge. However, for infectious disease data with excessive zeros, a Wombling issue with large spatial variation could make the Bayesian methods infeasible. To address this issue, we develop estimating equations associated with disease mapping by including over-dispersion and spatial noises in a spatial zero-inflated Poisson model. Asymptotic properties are derived for the parameter estimates. Simulations and data analysis are used to assess and illustrate the proposed method.

歡迎參加

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