

# 國立臺北大學統計學系

## 專題演講

講題：Spatial Estimation and Inference Based on Area Aggregated Data

主講人：黃信誠 研究員（中央研究院統計科學研究所）

時間：107 年 5 月 02 日（星期三，13：10~15：00）

地點：三峽校區商學院 7F01 教室

### Abstract

This talk contains two parts. Firstly, we consider estimation of intensity function for a spatial point pattern based on spatially aggregated count data. A standard approach for estimating the intensity function is to use a kernel estimator. However, when data are only available in a spatially aggregated form with the numbers of events available in geographical subregions, traditional methods become infeasible. In this research, a kernel-based method is proposed to produce a smooth intensity function based on aggregated data. Secondly, we consider testing a spatial signal based on data obtained by aggregating an image into several subregions. Our method utilizes a nonparametric testing procedure called enhanced false discovery rate originally developed to detect a spatial signal from an image. Some numerical examples will be given to demonstrate the effectiveness of the proposed methods.

~歡迎參加~

國立臺北大學統計學系 敬邀

107.04.25