

國立臺北大學統計學系

專題演講

講題： A geographically weighted quantile regression technique for count data to modeling spatial nonstationairty

主講人：陳怡如 副教授 (淡江大學統計學系)

時間：107 年 6 月 6 日 (星期三，13：10~15：00)

地點：三峽校區商學院 3F13 教室

Abstract

Past decade have witnesses a growthin the applications of Geographically Weighted Regression (GWR) and of Quantile Regression (QR). While these two techniques havebecome the commonplaces invariousdisciplines, they have never been integrated until an analytic framework called geographically weighted quantile regression (GWQR)has been proposed recently. GWQRhas been introduced as a newtool for examining spatial nonstationarity across locations atvarious quantiles of the response distribution. However, the current structure of GWQR is restricted to the analysis of continuousdependent variables. Discrete count data are observed in many fields such as health (disease counts), transportation (accidents), and finance (number of bankruptcy). When it comes to model such type of outcome, GWQR is inappropriate and provides insufficient information of the data. In this study, we aim to address the gap by expanding the GWQR capability to modeling count outcomes. We will formulate the modelingspecificationas well as the inference of model parameters.A simple simulation study is then conducted to examinethe performance of the proposed method.Finally, we apply the technique to a real dataset as an empirical illustration.

~歡迎參加~

國立臺北大學統計學系 敬邀
107.06.05