

# 國立中央大學

## 統計研究所

### 學術演講

主 講 人：張政 副教授（中國人民大學統計與大數據研究院）

講 題：Nonparametric Estimation of the Continuous Treatment Effect  
with Measurement Error

時 間：112年01月10日（星期二）上午11：00 ~ 11：50

地 點：中央大學鴻經館M429室

茶 會：上午 10：00 ~ 10：30      地 點：鴻經館 510 室

### ABSTRACT

We identify the average dose-response function (ADRF) for a continuously valued error contaminated treatment by a weighted conditional expectation. We then estimate the weights nonparametrically by maximising a local generalised empirical likelihood subject to an expanding set of conditional moment equations incorporated into the deconvolution kernels. Thereafter, we construct a deconvolution kernel estimator of ADRF. We derive the asymptotic bias and variance of our ADRF estimator and provide its asymptotic linear expansion, which helps conduct statistical inference. To select our smoothing parameters, we adopt the simulation-extrapolation method and propose a new extrapolation procedure to stabilise the computation. Monte Carlo simulations and a real data study illustrate our method's practical performance.

◎敬請張貼

歡迎參加◎