# 國立中央大學

## 統計研究所

### 學術演講

主 講 人:李彥寰 助理教授 (國立臺灣大學資訊工程學系)

講 題: Iteration complexity of EM in Poisson inverse problems

時 間:109年10月06日(星期二)上午11:00~12:00

地 點:中央大學鴻經館M429室

茶 會: 上午 10:30 ~ 11:00 地 點: 鴻經館 510 室

#### **ABSTRACT**

Poisson inverse problems arise in many real-world applications, such as positron emission tomography and astronomical image deblurring. Expectation maximization (EM) is a standard---and perhaps the most popular---approach to solving a Poisson inverse problem. Vardi et al. proved EM asymptotically converges more than three decades ago; however, it was unclear how fast EM converges. In this talk, I will present a non-asymptotic convergence guarantee for EM. Our analysis exploits an interesting connection between EM and a portfolio selection method due to Cover.

#### ◎敬請張貼