

# 國立成功大學統計學系暨數據科學研究所

## 專題演講

演講者： Prof. Frederick K. H. Phoa（潘建興 研究員）  
中央研究院統計科學研究所

時 間： 2020年10月08日（星期四） 15:30 – 16:30

地 點： 統計學系三樓視聽教室（62331）

茶 會： 15:00 – 15:25（統計學系二樓教師休息室）

題 目： Big Data Analytics in the Web of Science

### 摘 要

Since the introduction of the impact factors, scientometrics has gradually become an important topic nowadays in the evaluation of the research performances at various levels, including but not limited to, personal-level, department-level, university-level, etc. There exists hundreds of evaluation indices describing in different perspectives, but most indices are obtained via simple arithmetic, from a data subset, and without statistical verification. A standard practice of obtaining these evaluation indices is to analyze the big data from the citation database. This talk introduces new techniques from statistics and big data to analyze a complete citation database called the Web of Science. In specific, it consists of three parts. The first part introduces a new centrality-based evaluation index, namely the network inc articles among re-search communities in the citation network. The second part proposes a two-step approach via deep learning and regression to quantitatively describe the relationship among subjects found in the big database. The third part applies the network clustering technique to detect potential research communities in the coauthorship network, and the evolution of these communities over years are also observed. This is a collaborative project with the research metrics group in the Institute of Statistical Mathematics（ISM）of Japan.

敬請公佈 歡迎蒞臨

主辦單位：國立成功大學統計學系暨數據科學研究所

協辦單位：國立成功大學附設醫院巨量科學中心

敬邀

統計學系：<http://www.stat.ncku.edu.tw/>

校園地圖：<http://news.secr.ncku.edu.tw/p/412-1037-1384.php>

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