國立中山大學應用數學系
學術演講

講　者：戴以誠 博士 (Cornell University)

講　題：Two-Sample Treatment Effect Estimands under Nonproportional Hazards with Right-Censored Data

時　間：2025/2/4（Tuesday）10:30～11:20

地　點：理 SC 4009-1 教室

Google Meet Link: https://meet.google.com/evg-ukyx-opd

Abstract

With survival outcome data, the hazard ratio is traditionally considered as the gold standard to quantify the treatment effects. However, the advancements in immunotherapy for clinical oncology challenge the proportional hazards assumption, making the interpretation of hazard ratios questionable. While restricted mean survival time has emerged as an alternative, and other model-based estimation and testing methods have been proposed, there is still no consensus on the best approach to summarize the treatment effect under nonproportional hazards. In this talk, I will discuss the issues associated with nonproportional hazards in treatment effect quantification and introduce a novel two-sample treatment effect estimand to assess the relative performance of two groups over time. Our method includes a graphical tool to trace treatment progression and align relative changes in hazard functions, depicting the instantaneous effects of treatments. Furthermore, to enhance efficiency and incorporate baseline covariates, we adopt a debiased machine learning framework, leveraging modern machine learning techniques to ensure robust and valid inference procedure.

敬　請　公　告！　歡　迎　參　加！

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