



統計科學研究所
INSTITUTE OF
STATISTICAL SCIENCE



Seminar

Title : Causal mediation analysis of non-mortality outcomes with follow up truncated by death: Survivor natural direct and indirect effects

Speaker : Prof. An-Shun Tai (戴安順 助理教授)
(Department of Statistics, National Cheng Kung University)

Time : 10:30 ~ 12:00, Monday, April 8, 2024

Place : Auditorium, B1F, Institute of Statistical Science

Abstract

In the context of mediation analysis, the presence of death-truncated variables poses a challenge as conventional measures fail to accurately assess the role of a mediator in the effect of a treatment on a primary non-mortality outcome. This study introduces novel estimands – survivor natural direct and indirect effects – to address this issue. Exchangeability assumptions are employed to mitigate confounding effects, and empirical expressions are derived using information from a pretreatment surrogate variable akin to an instrumental variable. Three estimation approaches – model parameterization, generalized method of moments, and data-adaptive G-computation – are developed and applied using data from a National Emphysema Treatment Trial to illustrate the proposed method.

※ Tea reception starts at 10 : 10.

※ Online live streaming through Cisco Webex will be available