



Date

9:00 a.m.-5:00 p.m., July 21-24
8:00 a.m.-5:00 p.m., July 25

Venue

Room 515, Cosmology Building, NTU

Mathematical Modeling and Analysis of Infectious Diseases

[跨領域傳染病建模分析] 專題課程

Speakers

- (1) **Jonathan Dushoff**, Professor of Biology, McMaster University
- (2) **Libin Rong**, Professor, Department of Mathematics, University of Florida
- (3) **Naveen K. Vaidya**, Professor, Department of Mathematics and Statistics, San Diego State University
- (4) **Hiroshi Nishiura**, Professor, Graduate School of Medicine, Kyoto University
- (5) **Andrei Akhmetzhanov**, Assistant Professor, National Taiwan University College of Public Health
- (6) **鄭皓元**, epidemic prevention physician (防疫醫師), Taiwan Centers for Disease Control

Organizers

Tai-Chia Lin 林太家	National Taiwan University
Hsien-Ho Lin 林先和	National Taiwan University
Feng-Bin Wang 王峰彬	Chang Gung University
Andrei Akhmetzhanov	National Taiwan University

課程內容與亮點

- Understand and model how infectious diseases spread through agents, hosts, and environments.
了解並建構傳染病如何透過媒介、宿主與環境傳播的模型
- Apply modeling to guide public health decisions and resource allocation.
將模型應用於公共衛生決策與資源配置
- Address new and emerging diseases (e.g., COVID-19, Ebola, Zika) using data-driven approaches.
採用資料導向方法處理新興與再現傳染病 (如 COVID-19、伊波拉、茲卡等)
- Train students in mathematical tools for analyzing transmission, evolution, and host-pathogen interactions.
訓練學生掌握用於分析傳播、演化與宿主 - 病原體互動的數學工具
- Promote interdisciplinary collaboration between modelers and public health researchers.
促進模型研究人員與公共衛生研究者之間的跨領域合作
- Foster early-career networking and support future leaders in disease modeling.
建立青年學者的人脈連結，培養未來傳染病建模領域的領導人才

歡迎數學、統計學、公共衛生及相關領域的學生與年輕研究人員報名參加!

學分:2

課號:NCTS 5007 (V41U6070)

台大暑期課程網選課:外校同學(6/3-6/4)、台大同學(6/10-6/11)

Contact

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