

# RESEARCH SEMINAR

DEPARTMENT OF GEOGRAPHY AND RESOURCE MANAGEMENT  
THE CHINESE UNIVERSITY OF HONG KONG

## Environmental Deprivation and Health Risk: Perspectives of Urban Resilience and Environmental Management

18 Nov 2021 (Thu)  
4:30–6:00 pm (UTC+8)

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Deprivation is a key concept of community planning and environment management since it can reflect the lack of specific goods considered to be a necessity in a society. In addition to the impact from social environment, a neighborhood with environmental deprivation can result in an area with a lack of acceptable environmental quality as well as low quality of livability. Particularly, the interaction between determinants of environmental deprivation (e.g. air pollution, traffic noise, anthropogenic heat) can induce significant impacts on human health. To minimize various health problems from environmental deprivation, improvement of urban resilience over a city is necessary.

This seminar will overview the potential health impacts from environmental deprivation across mega-cities (e.g. Hong Kong). Particularly, this seminar aims 1) to explore various spatio-temporal modelling techniques and machine learning applications for environmental exposure and health assessments, 2) to demonstrate the use of proposed methods for the optimization of environmental exposure mapping and health estimations, 3) to investigate the uncertainty of modelling techniques and spatial data quality for environmental impact assessments, and 4) to discuss how to improve urban resilience and environmental mitigation through various case studies.

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Hung Chak Ho (Derrick Ho) is an Associate Editor for *International Health* (Publisher: Oxford), an editorial board member for *BMC Public Health* (Publisher: Springer), and an early career advisory board member for *Environmental Research* (Publisher: Elsevier). He is also a member (MHKIOEH) of the Hong Kong Institute of Occupational and Environmental Hygiene. Derrick's research focuses on linkages between environmental hazards and human health, with particular interests in spatiotemporal modelling and machine learning applications for environmental exposure and health assessments. He is currently leading various research projects to investigate spatiotemporal influences of built environment and local pollutions on community health risk.



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