

RESEARCH SEMINAR

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

Geospatial Big Data Analytics for Accessible, Equitable and Healthy Cities

13 Sep 2023 (Wed)

10:45 am – 12:15 pm (UTC+8)

Rm 233, Wong Foo Yuan Building,
CUHK

Socio-spatial inequality in spatial accessibility to resources for sustaining health and exposure to (un)healthy environments is a critical issue affecting urban populations. This seminar will introduce how Location-Based Service (LBS) APIs like Google Maps, remote sensing imagery such as NOAA NPP VIIRS, and government/commercial data products like TIGER Products from the U.S. Census Bureau can be leveraged to measure neighborhood-level accessibility to health-sustaining resources such as job, healthcare, greenspace and healthy grocery. In addition, the seminar will also discuss the use of portable sensors and GPS devices in measuring individual-level exposure to (un)healthy environments, which enables the assessment of environmental exposures, such as noise, air pollution and greenspace, experienced by urban residents in their daily lives. Overall, this seminar will focus on how the integration of multiple geospatial big data sources and analytical methodologies helps shed light on the complex interplay between socio-spatial inequality, accessibility to neighborhood health-related resources, and individual environmental exposures in urban contexts, which contributes to evidence-based policy-making and urban planning efforts aimed at fostering more accessible, equitable, and healthy cities for all residents.

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Dr. Dong Liu is a Research Assistant Professor at The Chinese University of Hong Kong (CUHK), holding a joint appointment in the Institute of Space and Earth Information Science (ISEIS) & Institute of Future Cities (IOFC). He received his PhD in Geography from the University of Illinois Urbana-Champaign in 2021 and previously worked as a Postdoctoral Associate at The University of Western Ontario. Dr. Liu's research employs geospatial analytics to investigate urban health, sustainability, and socio-spatial inequality. He has been recognized for his research achievements with the Canada Children's Health Research Institute Trainee Award and Marion G. Russell Graduate Fellowship.



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