## **RESEARCH SEMINAR**

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

## Advancing Urban Environment, Exposure and Equality (U3E) Research with Geospatial Data and Analytics

31 October 2024 (Thu) 4:30 – 6:00 pm (UTC+8) Rm 221, Chen Kou Bun Building, CUHK

Strong evidence has indicated that urban environment such as greenspace, blue space, air pollution, and heat stress significantly affect human health and well-beings. Therefore, the timely and accurate monitoring and assessment of different urban environments and the associated exposure and equality issues are critically important for understanding urban heterogeneities and developing urban planning and response strategies. However, research advances are limited to the following three aspects. First, limitation in the data capability of quantifying spatially and temporally explicit dynamics of urban environments. Second, limitation in the methodological framework of characterizing human-environment spatiotemporal interactions into environmental exposure assessments. Third, limitation in the evidence-based diagnosis of coupling environment (i.e., physical environment condition), exposure (i.e., human perceived environment), and equality (i.e., social and environmental justice) to optimize solutions and prioritize practices. A holistic framework of advancing the monitoring-modeling-assessment capability for sustainable and inclusive urban environments is urgently needed but has not yet been achieved. This talk will introduce some of recent research studies in Future Urbanity & Sustainable Environment (FUSE) Lab working toward this promising direction of Urban Environment, Exposure and Equality (U3E).



## Bin Chen

## Assistant Professor Faculty of Architecture The University of Hong Kong

Prof. Chen is an Assistant Professor, HKU-100 Scholar, Director of FUSE Lab, at The University of Hong Kong. His research mainly focuses on remote sensing of built and natural environment, human-environment interaction and environmental health. He has published more than 70 journal articles with Google citations >13k, including Science, Nature Sustainability, Nature Communications, Nature Cities, PNAS, Science Bulletin, RSE, ISPRS P&RS, etc. He is the Associate Editor of Remote Sensing in Ecology and Conservation. He is ranked as top 1% researcher (by Clarivate Analytics) and top 2% scientist (by Stanford), and he received Geospatial World 50 Rising Stars award, International Society for Digital Earth Young Scientist Award, Global Young Scientist Award, AAG Early Career Award in Remote Sensing, and Li Xiaowen Remote Sensing Excellent Youth Award.





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