RESEARCH SEMINAR

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

Spatial-temporal dynamics of climate resilience

24 September 2025 (Wed)
3:15 – 4:45pm (UTC+8)
Rm 221, Chen Kou Ben Building, CUHK

Climate change presents escalating challenges to human societies, yet history and contemporary practice both reveal remarkable capacities for resilience. My research investigates the spatial-temporal dynamics of climate resilience, focusing on how socio-ecological systems cope with stress, sustain essential functions, and evolve toward more desirable trajectories. Drawing on empirical case studies from Asia and Europe, alongside long-term perspectives over the past 5,000 years, I show that resilience is not an exception but a recurring pattern of human adaptation and innovation. Building on the ERC-funded STORIES project, I examine how communities in the Mekong and Pearl River basins live with recurring floods, adapting through elevated housing, upgraded infrastructure, agricultural shifts, and cooperative governance. Using a multi-scalar framework—from households to river basins and from monthly to millennial scales—I integrate historical archives, field surveys, climate data, agent-based modeling, and social network analysis to reveal the dynamics of resilience loops, tipping points, and scale interdependencies. The findings highlight that resilience emerges not only from infrastructure and technology but also from social networks, cultural practices, and institutional arrangements. This research contributes to a solution-oriented understanding of climate resilience, advancing both theory and practice for equitable and climate-resilient development in diverse contexts.

Liang Emlyn Yang

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Dr. Liang Emlyn Yang (杨也明) is Associate Professor of Geography at LMU Munich and Affiliated Research Fellow at Harvard University. His research examines the resilience of human and social systems to climate change, highlighting adaptation, innovation, and long-term socio-ecological dynamics. With case studies across Asia and Europe and historical perspectives spanning 5,000 years, he integrates methods from surveys and network analysis to agent-based modeling and machine learning. Author of over 80 publications, he leads the ERC-funded STORIES project on flood resilience in the Mekong Basin and actively advances global climate resilience research, teaching, networking and policy engagement.

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