SS1 - Geospatial Technologies for Dynamic City Digital Twins **Date: 8 August 2025 (Friday)** **Venue: Room Z205, Block Z, PolyU**	
14:00-14:20	**A Conceptual Framework for Updating Urban Infrastructure in City Digital Twins** Author(s): Debaditya Acharya, Daping Yang, Monica Wachowicz, Min Zhang, Wenzhong Shi and Sisi Zlatanova
14:20-14:40	**Voxel-based Vegetation Change Detection Using Multi-source Data** Author(s): Debaditya Acharya, Ben Gorte, Min Zhang, Daping Yang, Wenzhong Shi, Sisi Zlatanova and Monica Wachowicz
14:40-15:00	**STAR: Spatio-temporal Autoregression for Human Mobility Modeling via Next-Scale Prediction** Author(s): Yuxiao Luo, Yang Xu and Ling Yin
15:00-15:20	**Automatic Extrinsic Calibration of Dual Lidars with Adaptive Surface Normal Estimation** Author(s): Mingyan Nie

SS2 - Urban Analytics for Climate Resilient Smart Cities **Date: 8 August 2025 (Friday)** **Venue: Room Z209, Block Z, PolyU**	
9:00-9:20	**Assessing Impact of Terrain Gradients on the Measurements of Spatial Accessibility and Urban Liveability** Author(s): Gang-Jun Liu
9:20-9:40	**Untangling the Interplay between Urban Morphology, Thermal Environment, and Air Pollution: A Seasonal Mediation Analysis in Wuhan** Author(s): Ruihan Qiu, Qinming Zhan and Shiqi Tu
9:40-10:00	**Sensing Neighbourhoods for Monitoring Urban Green Spaces and Enhancing Climate Resilience** Author(s): Nadia Sharif and Monica Wachowicz
10:00-10:20	**Adaptive Urban Heat Mitigation Through Ensemble Learning: Socio-Spatial Modeling and Intervention Analysis** Author(s): Wanyun Ling
10:30 - 10:45	Coffee Break
10:50-11:10	**Identification of Nonlinearity and Spatial Non-Stationary Effects of Local Drivers on The Synergy between Air Quality Management and Carbon Mitigation in The Yangtze River Delta Urban Agglomeration** Author(s): Man Guo, Baozhang Chen and Nicholas Hamm
11:10-11:30	**Urban Climate Across Scales: Integrating Simulation and Machine Learning for Heat Resilience** Author(s): Xinyi Zhang and Tingting Hon
11:30-11:50	**Predicting multi-scenario land use changes and its carbon emission implications under shared socioeconomic pathways** Author(s): Xingang Zhou

SS3 - Mobile Urban Sensing and AI-Driven Urban Informatics **Date: 8 August 2025 (Friday)** **Venue: Room Z207, Block Z, PolyU**	
9:00-9:30	**Topic:What influences human experiences in a place? A hyperlocal analysis using environmental sensing and social media data** Xiaotong Zhang
9:30-10:00	**Topic:A Global Image Analysis: Urban Visual Clusters and Road Transport Fatalities** Zhuangyuan Fan
10:00-10:30	**Topic:Network-wide Urban Traffic Flow Estimation on Unobserved Roads with a Knowledge Graph-based Pairwise Difference Learning Framework** Prof. Wei Ma
10:30-10:45	Coffee Break
10:45-11:15	**Topic:Air Pollution and Health Risks in Rural Residences of China** Shanshan Shi
12:00-14:00	Lunch Break
14:00-14:30	**Topic:The Road to Clean Air: Mobile Monitoring of Air Pollution** Prof. Jules Kerckhoffs
14:30-15:00	**Topic:Application of low-cost environmental sensors in citizen science networks for urban heat island studies and STEM education** Prof. Yun Fat Lam
15:00-15:30	**Topic:Informing What I see and think: Communicating the Beyond-Visual-Range Information to Surrouding Drivers** Prof. Dengbo He

SS4 - Spatiotemporal Prediction and Early Warning of Respiratory Virus **Date: 7 August 2025 (Thursday)** **Venue: Room Z207, Block Z, PolyU**	
14:00-14:15	**The 1978 English Boarding School Influenza Outbreak: Where the Classic Seir Model Fails** Author(s): Daihai He
14:20-14:35	**Forecasting of Emerging Infectious Diseases with Spatial Data–Driven Extended Weighted Kernel Density Estimation** Author(s): Wenzhong Shi and Chengzhuo Tong
14:40-14:55	**A Mechanistic Learning Model Approach for Coupled Contagion Dynamics of Behavior and Disease** Author(s): Yijun Lou
15:00-15:15	**Spatial Spread and Transmissibility of multiple SARS-CoV-2 variants in Hong Kong** Author(s): Tsan Yuk Lam
15:20-15:35	**Autoregressive Networks** Author(s): Binyan Jiang
15:40-16:00	Coffee Break

SS5 - LLM Powered Urban Informatics at GSCS & ICUI 2025 **Date: 7 August 2025 (Thursday)** **Venue: Room Z207, Block Z, PolyU**	
9:00-9:35	**Keynote Speech:** **Urban Informatics – the Case of Time Series** Professor Christian S. JENSEN Member of the Academia Europaea, the Royal Danish Academy of Sciences and Letters, and the Danish Academy of Technical Sciences, ACM and IEEE Fellow Professor of Computer Science, Aalborg University, Denmark
9:35-10:10	**Keynote Speech:** **Large-Scale Heterogeneous Scene Modeling and Editable Generation** Professor Dan Xu Assistant Professor in the CSE Department at HKUST
10:10-10:20	**TrajSceneLLM: A Multimodal Perspective on Semantic GPS Trajectory Analysis** Author(s): Qiumeng Li and Chunhou Ji
10:20-10:30	**Learning Generative Object Priors for Unsupervised 3D Object Segmentation** Author(s): Zihui Zhang, Yafei Yang, Jinxi Li and Bo Yang
10:30-10:45	Coffee Break
10:45-11:20	**Keynote Speech:** **SpatialLM: Training Large Language Models for Structured Indoor Modeling** Dr Zihan Zhou Chief Scientist at Manycore Tech Inc.
11:20-11:30	**Optimizing the Energy Efficiency of Chillers in Buildings via Machine Learning** Author(s): Kenneth Wong
11:30-11:40	**Aerial Point Cloud Segmentation via Parameter-Efficient Fine-Tuning of Foundation Models.** Author(s): Xuyin Wang, Haifeng Li, and Yunsheng Zhang
11:40-11:50	**LLM4GKID: A Multimodal Language Model-Driven POI Matching Framework for Ghost Kitchen Identification** Author(s): Weipeng Deng, Yihong Tang, Chaofan Wang, and Tianren Yang

11:50-12:00	**Auto Analysis System for Answering Business Questions** Author(s): Benjamin Wong
12:00-12:10	**Unified Cross-Modal Time Series Foundation Model with Dynamic Feature Alignment** Author(s): Minjun Cao, Hao Miao, and Senzhang Wang
12:10-12:20	**Identifying High Risk Zones of Secondary Disasters in Coastal Cities under Typhoon Events: A Multi-Source and Multimodal Assessment Framework** Author(s): Yuli Fan, Qipeng Liao, Qingming Zhan, Changtong Wang, Huang Hao, Yixu Wei, and Huizi Zhang
12:20-12:30	**Massive Digitalization and Structured Organization of Photocopied Geo-Historical Documents via Pretrained LLMs Based on Maas** Author(s): Huahao Li, Yuli Fan, Huizi Zhang, Bangwei Wu, Xiyu Zhang, and Qingming Zhang

SS6 - TRS Symposia - Healthy and Resilient Cities with Pervasive LoCHs **Date: 7 August 2025 (Thursday)** **Venue: Room Z211, Block Z, PolyU**	
9:00-9:15	**Opening Speech** Prof. Xiangdong Li
9:15–10:00	**Urban Microclimate Modeling for Heat Mitigation Planning** Prof. Jan Carmeliet
10:00-10:15	Coffee Break
10:15-11:00	**Study on the Coupled Wind, Thermal, and Moisture Mechanisms at the Microscale in Residential Areas** Prof. Naiping Gao
11:00-11:15	**A Multi-Scale Modelling Framework for Calculating Pedestrian-Level Wind Distributions in Real Urban Environments** Jue Wang And Ruoyu You
11:15-11:30	**Deep Learning Based Surrogate Models for Fast Prediction of Urban Wind Environments** Houzhi Wang, Wei Ma, Jianlei Niu, And Ruoyu You
11:30-11:45	**Predicting and Mitigating Urban Overheating with Nature-Based Solutions: A Machine Learning Approach Supported by Field Measurement Data** Jiwei Zou, Lin Wang, Senwen Yang, Liangzhu Leon Wang Michael Lacasse
11:45-12:00	Discussion
12:00-14:00	Lunch Break
14:00-14:15	**Daytime Radiative Cooling Technology Driven Thermal Environment Management in Urban Heat Source Buildings** Yunfei Fu, Yunlong Wang And Tim K.T. Tse

14:15-14:30	**Design and Optimization of a Horizontal Windcatcher Modified from Led Video Walls** Bingchao Zhang, Cruz Y. Li, Yunfei Fu And Tim K.T. Ts
14:30-14:45	**Thermal Environment in a Street Canyon with Aerodynamic Interference from Dense Billboards** Daniel Ziyue Peng, Bingchao Zhang And Tim K.T. Tse
11:45-12:00	Discussion
15:15-15:30	**A Modified Turbulence Model to Better Account for the Buoyancy Effect** Hao Wang And John Zhang Lin
15:30-15:45	**Coupled Simulation of Cfd and Human Thermoregulation Model in Outdoor Wind Environment** Kumar Dharmasastha, And Jianlei Niu
15:45-16:00	**Enhancements of Whole-Body Thermal Sensation Model for Non-Uniform and Transient Environments** Junwei Lin, Ying Jiang, Yongxin Xie, And Jianlei Niu
16:00-16:15	**Speech Topic: Explore Health Risks That the Elderly Face During Heatwaves due to Their Degraded Perceptual Responses** Peiyang Du, Yongxin Xie, And Jianlei Niu
16:15-16:30	**Human Body Convective Heat Transfer Coefficient under Non-Stationary Turbulent Wind** Siqi Zhou, Yichen Yu, And Jianlei Niu
16:30-16:45	**The Influence of Clothing Moisture Content on Heat and Moisture Transfer between the Human Body and The Environment** Cheng Zhao, Yichen Yu, And Jianlei Niu
16:45-17:00	**Improved Human Heat Storage Model for Dynamic Conditions Incorporating the Time-Lag Relationship Between Weighted Mean Skin Temperature and Metabolic Rate** Yuchun Zhang And John Zhang Lin

SS6 - TRS Symposia - Healthy and Resilient Cities with Pervasive LoCHs **Date: 8 August 2025 (Friday)** **Venue: Room Z211, Block Z, PolyU**	
9:00 - 9:45	**Optimizing Design for Better Human Thermal Comfort** Ms Elaine Wong
9:45-10:30	**Promoting a Liveable and Sustainable Urban Environment in Hong Kong** Ms. Margaret Chan
10:30-10:45	Coffee Break
10:45-11:30	**Pervasive Comfort Hubs for Resilient Cities: The Tung Chung Stream River Park as a Model For Ecological and Community Resilience** Ms. Theresa W.S. Yeung
11:30-11:45	**Cool Down Hot Spots: Thermally Responsive Generative Design for Mixed-Used Urban Blocks** Xueqing Li, Wilson W.S. Lu, Ziyu Peng, And Zihan Xu
11:45-12:00	**How to Buffer Areas Affects Outdoor Heat Stress Assessment? a Case Study in Kowloon East** Zihan Xu, Wilson W.S. Lu, Ziyu Peng, And Xueqing Li
12:00-12:15	**Modelling the Impact of Green Infrastructure on Urban Heat Mitigation** Tongping Hao, Phil Jo, Simon Lannon, Peter Frost, And Jianxiang Huang
11:45-12:00	Discussion
12:00-14:00	Lunch Break
14:00-14:15	**Heat View Factor: New Framework for Urban Surface Temperature Assessment** Anvar Mukhamedjanov

14:15-14:30	**Assessing Outdoor Thermal Experiences under Future Extreme Heat: A Case Study in Hong Kong's Public Housing Estates** Yilun Li And Chao Ren
14:30-14:45	**Evaluating Dynamic Thermal Comfort During Outdoor Walking: A Comparison of Pet and Mpet** Guancong Ren
14:45-15:00	**Assessing Urban Pedestrian-Level Climate Experience through Small and Big Data In Hong Kong** Jiawei Wang, Jianong Li, And Jianlei Niu

SS7 - Spatial Intelligence in the Wild **Date: 7 August 2025 (Thursday)** **Venue: Room Z414, Block Z, PolyU**	
9:00-9:30	**Spatial Artificial Intelligence Driven Transport Infrastructure Inspection** Prof. Wei Tu
9:30-10:00	**From Coral Reef Habitat Monitoring to Resilient Coasts: Embodied Underwater Remote Sensing Robots and Urban Sustainable Development** Prof. Ming Li
10:00-10:30	**Seeing Cities in the Wild: Robust and Efficient Visual Localization for Smart Cities** Prof. Jialu Wang
10:30-10:45	Coffee Break
10:30-11:00	**Geospatial Data for Urban Village Renewal in China: A Critical Review and Assessment Towards SDG 11** Author(s): Yi Zhang and Rui Cao
11:00-11:30	**Last-Centimeter Drone Delivery in Urban Environments** Author(s): Qingyang Meng, Guanzhong Zhou, Hao Cao, Bowen Lan, Zhipeng Shen and Hailong Huang

SS8 - Urban Navigation and Sensing for Next-Generation Smart Cities **Date: 7 August 2025 (Thursday)** **Venue: Room Z205, Block Z, PolyU**	
9:00-9:05	**Welcome emarks** Prof. Weisong Wen
9:05-9:45	**Urban Sensing using GNSS Signals - Potentials and Outlooks** Dr. Guohao Zhang
9:45-10:25	**Dynamic Object-Aware LiDAR Odometry in Urban Areas: From Single to Cooperative Navigation** Dr. Feng Huang
10:25-10:45	Coffee Break
10:45-11:15	**Wi-Fi RTT-aided LiDAR-Inertial Odometry via Tightly-Coupled Factor Graph Optimization in Complex Scenes** Ruijie XU
11:15-11:45	**Panel Discussion: Urban Navigation and Sensing for Next-Generation Smart Cities**

SS9 - Smart Urban Mobility **Date: 8 August 2025 (Friday)** **Venue: Room Z205, Block Z, PolyU**	
09:00-09:20	**Keynote Speech: Intelligent and Trustworthy UAV Task Allocation for Low Altitude Economy** Prof. Zhe PENG
09:20-09:40	**Keynote Speech: Towards the sustainable economy through digital technology: A drone-aided after-sales service scheduling model** Prof. Xin WEN
09:40-09:55	**Electric Vehicle Routing for Reservation-based En-Route Charging Services** Xiaohua CHEN
09:55-10:10	**The Effect of Local Government Investment On Airline Performance in China** Chuanyang Zhu
10:15-10:30	**The Relationship Between Air Taxi and Ground Taxi Companies: Competition or Collaboration?** Zhongyi JIN
10:30-10:45	Coffee Break
10:45-11:05	**Keynote Speech: Disentangling metro passenger travel delays under extreme weather events: An analytical framework** Prof. Zhan Zhao
11:05-11:25	**Keynote Speech: Optimal designs of heterogeneous grid transit networks** Prof. Wenbo Fan
11:25-11:40	**Modular Vehicle Scheduling and Robot Routing for Combining Passenger and Freight Transport**

	Ya XIONG
11:40-11:55	**Causally-Aware Spatio-Temporal Multi-Graph Convolution Network for Accurate and Reliable Traffic Prediction** Pingping DONG
11:55-12:10	**Reinforcement Learning-Based Charging Scheduling for Shared Electric Bus Infrastructure** Ziyu CUI
12:10-12:25	**A Graph Vertex-Coloring-Based Parallel Block Coordinate Descent Method for Solving the Traffic Assignment Problem** Kai ZHANG
12:25-12:40	**AI and Remote Sensing for Smart Mobility: Data Fusion, Algorithms and Future Applications** Binbin HOU, Haishan XIA

SS10 - Edge AI for Smart Cities **Date: 7 August 2025 (Thursday)** **Venue: Room Z205, Block Z, PolyU**	
14:00-14:10	**Opening Remarks** Prof. CAO Jiannong
14:10-14:35	**Unmasking Hidden Threats: Strengthening Blockchain System Security** Prof. LUO Xiapu
14:35-15:00	**Towards Autonomy and Intelligence for Collaborative Edge Computing** Prof. YANG Lei
15:00-15:20	**Smart Infrastructure-Assisted Autonomous Driving** Dr. ZENG Liekang (on behalf of Prof. XING Guoliang)
15:20-15:35	Coffee Break
15:35-16:00	**Smart Routing for Large-Scale Smart City Applications** Prof. ZHOU Xiaofang
16:00-16:25	**Hyperion: Low-Latency Ultra-HD Video Analytics via Cloud-Edge Collaborative Vision Transformer Inference** Prof. LI Bo
16:25-16:50	**Empowering Modern Distributed Systems with LLMs: An Intelligent Software Engineering Perspective** Dr. SU Zishan (on behalf of Prof. Michael Lyu)
16:50-17:10	**Advances in Effective and Efficient Multimodal Data Processing** Dr. LI Qing
17:10-17:30	**Toward Efficient and Trustworthy Machine Learning for Graph Applications** Dr. SU Junwei (on behalf of Prof. Wu Chuan)

17:30-17:35	**Group Photo** **PC & Co-PIs**
17:35-19:00	**Dinner** **PC & Co-PIs**

SS11 - Low-altitude Economy **Date: 7 August 2025 (Thursday)** **Venue: Room Z414, Block Z, PolyU**	
14:00-14:05	**Opening Remark**
14:05-14:30	**Efficient Aerodynamic Noise Prediction for the Multirotor Unmanned Aircraft Systems for Low Altitude Economy** Prof. Siyang Zhong
14:30-15:00	**Goal-Oriented Feature Extraction: A Novel Approach to Enhance Data-Driven Aerodynamic Surrogate Models** Dr. Xu Wang
15:00-15:25	**Hydrogen-Powered Autonomous Aircraft: Solutions, Trends, and Integrated Flight and Energy Management Framework** Dr. Xiaoyu Guo
15:25-15:40	Coffee Break
15:40-16:05	**Integrated Real-Time PPP-RTK Infrastructure for Cross-Border Low-Altitude Positioning and Navigation in the Greater Bay Area** Dr. Jiahuan Hu
16:05-16:30	**The Value of LiDAR Technology Evolution to Low-Altitude Economy** Dr. Liz Li
16:30-16:55	**Coordinated Path Planning of Unmanned Aerial Vehicles and Unmanned Surface Vehicles for Maritime Monitoring** Ms. Qingying He