Draft AUM2022 programme (v02j)

All sessions, breaks and meals are held in the Crausaz Wordsworth Building and its gardens Address: 4a Adams Road, Cambridge, CB3 9AD¹

This is a hybrid symposium; online presentations are noted 'online' after paper number.

Day	Time	Sessions	Presentation titles
29.06.22	08.30	AUM2022 venue opens with coffee and pastries	
	00.45		
	09.15	Welcome from the convenors Ying Jin, Jamil Nur, Li Wan and Steve Denman (University of Cambridge)	Welcome message
		Session 1: Retrospect and the start of prospect Chair: Michael Batty (University College London) Host: Ying Jin (University of Cambridge)	
	09.30	Marcial Echenique (University of Cambridge)	Infrastructure plan for Chile 2020-2050 (Paper 1.1)
		Michael Wegener (Spiekermann and Wegener Urban Research, Dortmund)	No-growth urban development (Paper 1.2)
	11.00	Coffee/tea break	
		Session 2: The world's metropolitan areas Chair: Jamil Nur (University of Cambridge)	
		Host: Shanshan Xie (University of Cambridge)	
	11.30	Remy Sietchiping, Rafael Forero and Maria Tellez Soler (UN Habitat Metropolitan Studies team)	Progress with the world's metropolitan areas: a global overview (Paper 2.1; video
		Ola Uduku, University of Liverpool	message) Urban development in Africa [tbc] (Paper 2.2; video message)

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¹ Note this is to on the north side of the grounds of Robinson College – use '4a Adams Road, Cambridge' in your online navigation search so that you reach the venue directly; there is no need to go through the main entrance of the College.

Day	Time	Sessions Ying Jin (University of Cambridge)	Presentation titles How many applied urban models are there for the world's cities and city regions? (Paper 2.3)
	12.30	Lunch	
		Session 3: Understanding and modelling urban systems	
		Chair: Adam Dennett (University College London)	
		Host: Yue Ying (University of Cambridge)	
	13.30	Michael Batty (University College London)	The linear city: Illustrating the logic of spatial equilibrium (Paper 3.1)
	14.30	Eric J. Miller (University of Toronto)	Towards next-generation integrated urban systems modelling (Paper 3.2)
	15.30	Coffee/tea break	
		Session 4: New models for new trends Chair: Robin Morphet (University College London)	
		Host: Ying Jin (University of Cambridge)	
	16.00	Ian Williams (Ian Williams Services, UK)	Do we need van models? (Paper 4.1)
	17.00	Matthew E Kahn (University of Southern California)	Going remote: How the flexible work economy can improve our lives and our cities (Paper 4.2; online)
	18.30	Symposium reception	

Day	Time	Sessions	Presentation titles
30.06.22	08.30	AUM2022 venue opens with coffee and pastries	
		Session 5: An e-bike city? Chair: Eric Miller (University of Toronto) Host: Steve Denman (University of	
		Cambridge)	
	09.00	Kay Axhausen (ETH Zurich)	Dilemma of transport planning and why an e-bike city might be a new starting point (Paper 5.1; online)
		Session 6: Advances in LUTI modelling Chair: Michael Batty (University College London)	
		Host: Yaotian Ma (University of Cambridge)	
	10.00	Joseph Ferreira, Jr (MIT)	Next steps for next-generation - land use and transportation interaction (LUTI) models (Paper 6.1)
	11.00	Coffee/tea break	
		Session 7: New data, new methods, new fields (1)	
		Chair: Ian Williams (Ian Williams Services, UK)	
		Host: Louise Luo (University of Cambridge)	
	11.30	Paul Waddell (University of California Berkeley)	[tbc] (Paper 7.1)

Day Time

Sessions

Presentation titles

Session 8: New data, new methods, new fields (2)

Chair: Steve Denman

Host: Zhou Fang (University of Cambridge)

12.30 Fernando Benitez-Paez (The Alan Turing Institute), Hadrien Salat (The Alan Turing Institute), Dustin Carlino (The Alan Turing Institute), Daniel Arribas-Bel (The Alan Turing Institute and The University of Liverpool), Mark Birkin (The Alan Turing Institute and The University of Leeds)

Towards multi-level urban modelling: Spatially enriched synthetic micro data, with a focus on the population and its social interactions (Paper 8.1)

Maider Llaguno-Munitxa (UCLouvain), Martin Edwards (UCLouvain), Stephane Grade (CECOTEPE), Marie Vander Meulen (UCLouvain), Clement Letesson (Independent Consultant), Elena Agudo-Sierra (UCLouvain), Sergio Altomonte (UCLouvain), Emilie Lacroix (UCLouvain), Biayna Bogosian (FIU), Kris Mun (ANFA), Eduardo Macagno (UCSD) Juste Raimbault (LASTIG, Univ Gustave Eiffel, IGN-ENSG, Saint-Mande', France; CASA, UCL, London, UK; UPS CNRS 3611 ISC-PIF, Paris, France; UMR CNRS 8504 Ge'ographie-cite's, Paris, France) and Julien Perret (LASTIG, Univ Gustave Eiffel, IGN-ENSG, Saint-Mande', France)

360° image and video urban scene immersions to evaluate the role of urban green infrastructure in stress level reduction (Paper 8.2; online)

Quantifying the co-evolution of economic activities locations with geo-historical data: Paris, 19th century (Paper 8.3)

13.30 Lunch

Session 9: Advances in agent based modelling

Chair: David Simmonds (David Simmonds Consultancy, UK)

Host: tbc

14.30 Aruna Sivakumar (Imperial College)

Challenges in developing an agent- and activity-based microsimulation model of mobility and energy demands: Experiences from the IDLES programme at Imperial College London (Paper 9.1)

Day Time Sessions

Yuan Liao, Frances Sprei, Çaglar Tozluoglu, Sonia Yeh (Department of Space, Earth and Environment, Division of Physical Resource Theory, Chalmers University of Technology, Gothenburg)

Presentation titles

On the impact of EV charging behaviours: Spatiotemporal patterns of demand from user perspective using agent-based modelling (Paper 9.2)

Session 10: Modelling of activities

Chair: Robert Cervero (University of California Berkeley)

Host: Jamil Nur (University of Cambridge)

15.30 Adam Dennett (University College London), Gavin Chait (OpenLocal) and Christina Botros (CACI Ltd)

[speaker tbc]

The Health of the High Street revisited – A new Urban **Analytics Perspective (Paper** 10.1)

[tbc]

16.30 Coffee/tea break

Session 11: Advances in model integration

Chair: Rolf Moeckel (Technical University of Munich)

Host: Shanshan Xie (University of Cambridge)

17.00 Nael Alsaleh and Bilal Farooq (Toronto

Metropolitan University)

Sustainability analysis of shared on-demand transit with a focus on equity, diversity, and inclusion (Paper 11.1)

Fulvio D Lopane, Tiangu Shao, Eleni Kalantzi, Michael Batty (University College London)

The HARMONY Strategic Simulator: urban and transport modelling to inform policy and decision making (Paper 11.2)

Richard J Hewitt, Charlotte Astier, Juan Balea-Aneiros and Eduardo Caramés (Complutense University of Madrid)

Integrated modelling for sustainability transitions in cities: progress and challenges from the INTRANCES project (Paper 11.3)

Day	Time	Sessions Juste Raimbault (LASTIG, Univ Gustave Eiffel, IGN-ENSG, Saint-Mande', France; CASA, UCL, London, UK; UPS CNRS 3611 ISC-PIF, Paris, France; UMR CNRS 8504 Ge'ographie-cite's, Paris, France) and Micael Batty (University College London)	Presentation titles Coupling heterogeneous urban models (Paper 11.4)
		Session 12: Modelling the long term: theory and practice Chair: Michael Batty (University College London)	
		Host: Yue Ying (University of Cambridge)	
	18.00	Francisco Martínez, Ariel Castillo, Pedro Donoso, Leonel Gutiérrez and Ricardo de la Paz Guala (Universidad de Chile, FCFM, Santiago, Chile)	VLT-LUT: Modeling the very long term land use and transportation evolution of cities (Paper 12.1; online)
		John Douglas Hunt (University of Calgary), JE Abraham (HBA Specto Inc), Abdelrahman Muhsen (KAPSARC, Saudi Arabia), G Fuenmayor (HBA Specto Inc)	Forecasting Household Energy Demand in Riyadh Using PECAS (Paper 12.2; online)
	19.00	Symposium Dinner (buffet format to facilitate chatter)	
01.07.22	08.30	AUM2022 venue opens with coffee and	
		pastries	
	09.00	Session 13: Cities in East Asia Chair: Kazuki Nakamura (Meijo University, Nagoya) Host: Louise Luo (University of Cambridge) Haixiao Pan, Miao Hu, Tao Chen (Department of Urban Planning, Tongji University, Shanghai)	Exploring jobs-housing balance along metro lines: A case study in Shanghai (Paper 13.1; online)

Junyi Zhang (University of Hiroshima,

Hiroshima)

Integrated transport-energy modelling (Paper 13.2; online)

Day **Time** Sessions **Presentation titles** Runsen Zhang (University of Hiroshima, Long-term pathways to deep decarbonization of the Hiroshima) transport sector in the post-COVID world (Paper 13.3; online) Jing Kang (University of Hiroshima, Spatial analysis of EV users' demands for public Hiroshima) infrastructure in the context of COVID-19, based on multisource big data integration (Paper 13.4; online) Session 14: Upcoming challenges in transport and land use planning Chair: Chen Zhong (University College London) Host: Louise Luo (University of Cambridge) 10.00 Nick Malleson, Alison Heppenstall and Ed Challenges for ABM in Applied Manley (University of Leeds) Urban Modelling (Paper 14.1; online) Rolf Moeckel (Technical University The next frontier: Modelling Munich), Corin Staves(University of health impacts with integrated Cambridge), James Woodcock(University of land use/transport models Cambridge), Qin Zhang(Technical (Paper 14.2) University of Munich) 11.00 Coffee/tea break Session 15: The world going digital Chair: Kaveh Jahanshahi (UK Office for National Statistics - Data Science Campus, Newport, Wales) Host: Yue Ying (University of Cambridge)

Digital planning survey of planners across five 'anglosphere' countries: Australia, New Zealand, the USA, Canada and the UK (Paper 15.1; online)

Claire Daniel and Chris Pettit (University of

New South Wales, Sydney)

11.30

Day **Time** Sessions **Presentation titles** Wei Yang (Co-chair of Digital Task Force for Development of the Digital Planning, Chair of Wei Yang & Partners, Planning Task Force in the UK Immediate Past President of the Royal (Paper 15.2) Town Planning Institute) and Michael Batty (Co-chair of Digital Task Force for Planning, and University College London) Session 16: Upcoming challenges in local planning Chair: Marcial Echenique (University of Cambridge) Host: Yaotian Ma (University of Cambridge) Alistair Brereton-Halls and David Simmonds 12.30 Alternative approaches to (David Simmonds Consultancy, UK) appraising the benefits of land use and transport interventions (Paper 16.1) [tbc] [tbc] 13.30 Lunch Session 17: Urban analytics and modelling Chair: Joseph Ferreira Jr., (MIT) Host: Shanshan Xie (University of Cambridge) 14.30 Kaveh Jahanshahi et al (UK Office of [Urban data analysis at the National Statistics Data Science Campus, ONS] (Paper 17.1) Newport, Wales) Qili Gao (UCL), Chen Zhong (UCL), Yang Yue SIMETRI: socio-spatial Shenzhen University) inequalities and human mobility in megacities (Paper 17.2) Session 18: Frontiers in infrastructure modelling Chair: tbc Host: tbc (University of Cambridge) 15.30 Bryant ML Lai (Transports Publics Evaluating the use of Fribourgeois SA, Givisiez, Switzerland), responsive train stations Claudio Martani (Purdue University), gateways to minimize the risk Orlando M Roman Garcia (ETH Zürich), of overcrowded platforms: the

example of the London Bridge Station (Paper 18.1; online)

Bryan T Adey (ETH Zürich)

Day	Time	Sessions Claudio Martani (Purdue University), Jonas Imfeld (ETH Zurich), Hazar N. Dib (Purdue University), Bryan T Adey (ETH Zurich) [tbc]	Presentation titles Initial exploration of the stakeholder advantages of using robotic inspections and cleaning of water distribution pipes in urban areas (Paper 18.2; hybrid co-presentation)
	16.30	Coffee/tea break	
		Session 19: Accessible and affordable cities Chair: Geoffrey Hewings (University of Illinois Urbana- Champaign) Host: Ying Jin (University of Cambridge)	
	17.00	Rounaq Basu (MIT)	Planning sustainable cities: Coordinating accessibility improvements with housing policies (Paper 19.1 online)
		Michael Reilly (Michael Reilly Research and Consulting)	Forecasting Bay Area Housing Affordability (Paper 19.2; online)
	18.00	Formal symposium close with drinks in the Robinson College gardens	

Note: We plan to hold the usual **AUM Round Table** online when colleagues are back from their summer holidays as an online session – this will put all participants on an equal, virtual footing. We hope our forced practice of online interactions in the past two years will make this online Round Table a productive session. We will announce the date of this Round Table session, as well as the date for AUM2024, at the symposium.