AUM2020: Modelling the New Urban World

Online global workshop, 28 January 2021

Hosted by Martin Centre for Architectural and Urban Studies, University of Cambridge
(Programme overview – working version 3.1 updated 27 January 2021)

Live Programme (version 3f)

<table>
<thead>
<tr>
<th>UK time</th>
<th>Speaker location(s)</th>
<th>Local time(s)</th>
<th>Theme and presentations</th>
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<tbody>
<tr>
<td>Session 1</td>
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<tr>
<td>3-5am</td>
<td>Oceania</td>
<td>Sydney: 2-4pm (GMT+11)</td>
<td>CITY ANALYTICS (1)</td>
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<tr>
<td></td>
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<td></td>
<td>Jonathan Corcoran (The University of Queensland)</td>
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<td>Familiar strangers and urban analytics: mapping, measuring and monitoring</td>
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<td>Hoon Han (University of New South Wales)</td>
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<td>Vertical Land Use Mix and Industrial Ecosystem</td>
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<td>Somwrita Sarkar (University of Sydney)</td>
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<td>Polycentric urban growth and evolving access to jobs and social infrastructure: the role of new data sources, and implications of unexpected extreme events (e.g. COVID-19)</td>
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<td>Convenor: Christopher Pettit (University of New South Wales)</td>
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<td>Discussant: Sharon Biermann (University of Western Australia)</td>
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<td>Host: Ying Jin (University of Cambridge)</td>
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### Session 2

**5-7am China**

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<tr>
<th><strong>Time</strong></th>
<th><strong>Location</strong></th>
<th><strong>Speaker</strong></th>
<th><strong>Title</strong></th>
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</thead>
<tbody>
<tr>
<td>1-3pm GMT+8</td>
<td>China</td>
<td>Jieling Che (The Rising Lab, China Business Network)</td>
<td>Growing trend of new first-tier cities in china through big data: Breakthrough, diversity and innovation</td>
</tr>
<tr>
<td>1-3pm GMT+8</td>
<td>China</td>
<td>Frank Zhao (Shanghai MetroData Tech)</td>
<td>Hangzhou's &quot;city brain&quot;: a bureaucratic reform about to come?</td>
</tr>
<tr>
<td>1-3pm GMT+8</td>
<td>China</td>
<td>Haokun Fu (Beijing UrbanXYZ Technology Co., Ltd)</td>
<td>The practice of community governance on Shuangjing international sustainable development community pilot based on new urban science</td>
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</table>

**Convenor:** Qizhao Mao (Tsinghua University)  
**Discussant:** Haixiao Pan (Tongji University)  
**Host:** Tianren Yang (University of Cambridge)

### Session 3

**7-9am Japan and South East Asia**

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<thead>
<tr>
<th><strong>Time</strong></th>
<th><strong>Location</strong></th>
<th><strong>Speaker</strong></th>
<th><strong>Title</strong></th>
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</thead>
<tbody>
<tr>
<td>4-6pm GMT+9</td>
<td>Japan</td>
<td>Yoshitsugu Hayashi (Chubu University)</td>
<td>Economic growth, urbanisation, motorisation and environment nexus – An international perspective</td>
</tr>
<tr>
<td>2-4pm GMT+7</td>
<td>Bangkok</td>
<td>Varameth Vichiensan (Kasetsart University)</td>
<td>New-normal residential preference in Bangkok</td>
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<td>Junyi Zhang (Hiroshima University) and Baoxin Zhai (Tongji University &amp; Hiroshima University)</td>
<td>Modeling of interactions between land use and transport from a behavioral and psychological perspective – Research overview</td>
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<td>Witsarut Achariyaviriya, Yoshitsugu Hayashi and Hiroyuki Takeshita (Chubu University)</td>
<td>A Sufficiency based Spatial-temporal Planning for Daily Activity-travel Supporting New Normal for Flexible Working</td>
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<td>Masanobu Kii (Kagawa University) and Varameth Vichiensan (Kasetsart University)</td>
<td>Spatial Scenarios of Urban Core Functions under the Railway Extension: Case of Bangkok, Thailand</td>
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<td>Apiwat Ratanawaraha (Chulalongkorn University)</td>
<td>Lifestyle changes and transport – land use innovation in Bangkok</td>
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</tbody>
</table>

**Convenor:** Yoshitsugu Hayashi (Chubu University)  
**Discussants:** Kazuki Nakamura (Meijo University), Hiroyuki Takeshita (Chubu University)  
**Host:** Ying Jin (University of Cambridge)
### Session 4

<table>
<thead>
<tr>
<th>Time</th>
<th>Region</th>
<th>Event Details</th>
</tr>
</thead>
</table>
| 9-11am | Europe      | Switzerland and Sweden: 10-12am (GMT+1) Finland: 11am-1pm (GMT+2)  
**MODELLING METHODS (1)**  
Tim Hillel, Janody Pougala, Patrick Manser, and Wolfgang Scherr (École polytechnique fédérale de Lausanne (EPFL), Switzerland)  
Validating disaggregate models at an aggregate scale in a case study of mobility tool ownership in Switzerland  
Athanassios Votsis, Reija Ruuhela, and Hilppa Gregow (Finnish Meteorological Institute)  
Healthy, resilient, livable cities? Evidence from Helsinki’s 2018-19 heatwaves  
Jonathan Cohen and Jorge Gil (Chalmers University of Technology)  
Circular Economy meets Smart Cities: A general data model for waste flows in city regions  
Claudio Martani, Noemi Fiorot, Andrea Gonzalz, Bryan T. Adey, and Joris Van Wezemaël (ETH Zürich)  
Preparing offices for the age of distributed work. Evaluating the impacts of flexible designs in coping with the uncertain future demand for office space  |

Convenor and Discussant:  
**Mike Batty (University College London)**  
Host:  
Jamil Nur (University of Cambridge)

### Session 5

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<tr>
<th>Time</th>
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<th>Event Details</th>
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</table>
| 11am-1pm | India and USA | India: 4.30-6.30pm (GMT+5:30)  
**CRITICAL ISSUES UNDER RAPID URBANISATION**  
Darshini Mahadevia (Ahmedabad University)  
Reconceptualising Sustainable Mobility - The Housing Transport Nexus  
Bhargav Adhvaryu (Ahmedabad University)  
Public Transport Accessibility and Planning Policy  
Amit Patel (University of Massachusetts Boston)  
Conceptualizing Slums and Cities as Networks: Implications for Urban Planning and Public Health  
MS Raghavendra (Centre for VENUS & Ashoka School of Planning and Architecture)  
India’s Urban Water Infrastructure: Need for Policy on Permeable Cities  
Shweta Manchanda (School of Planning & Architecture, New Delhi)  
Addressing Energy Consumption in India’s Housing Sector  
CS Raghuram (Trilogue Studio and C R Narayana Rao Consultants)  
Technology as a Tool for Rapid Adaptive Response in Building Design and Construction  |

Discussant:  
**Marcial Echenique (University of Cambridge)**  
Host:  
Steve Denman (University of Cambridge)
### Session 6

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<tr>
<th>Time</th>
<th>Region</th>
<th>Country/Time Zone</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1-3pm</td>
<td>Africa and Latin America</td>
<td>Kenya: 4-6pm (GMT+3) Colombia: 8-10am (GMT - 5)</td>
<td>THE WORLD'S METROPOLITAN REGIONS: OVERVIEW AND CASE STUDIES</td>
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<td>Rafael H. Forero H. (UN-Habitat) The global state of metropolis: An overview</td>
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<td>Maria Tellez Soler (UN-Habitat) Improving metropolitan management in Latin America: The cases of Colombia, Bolivia and El Salvador</td>
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<td>Professor Nguendo Yongsi (tbc) / Frederic Happi (UN-Habitat) Improving metropolitan management in Africa: The case of Cameroon</td>
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<td>Convenor and Discussant: Remy Sietcheping (Chief of the Policy, Legislation and Governance Section, UN-Habitat)</td>
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<td>Host: Ying Jin (University of Cambridge)</td>
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### Session 7

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<tbody>
<tr>
<td>3-5pm</td>
<td>UK</td>
<td>UK: 3-5pm (GMT)</td>
<td>NEW MODELLING FRONTIERS</td>
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<td>Corinne Mulley (University of Sydney) Challenging policies that prohibit public transport use: travelling with pets as a case study</td>
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<td>David Simmonds (David Simmonds Consultancy and Heriot-Watt University) Land use and transport modelling for COVID-19 mitigation</td>
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<td>David Metz (University College London) The model failed to forecast the result of M25 motorway widening</td>
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<td>Discussant: Marcial Echenique (University of Cambridge) Host: Mingfei Ma (David Simmonds Consultancy and University of Cambridge)</td>
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<th>Topic</th>
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<tbody>
<tr>
<td>5-7pm</td>
<td>Europe</td>
<td>UK: 5-7 pm (GMT)</td>
<td>MODELLING METHODS (2)</td>
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<td>Gael Lederrey, Tim Hillel, and Michel Bierlaire (École polytechnique fédérale de Lausanne (EPFL), Switzerland) Synthetic population generation using GANS and expert knowledge</td>
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<td>Ahmed H. M. Eldesoky (Università iuav di Venezia), Nicola Colaninno (Politecnico di Milano) and Eugenio Morello (Politecnico di Milano) High-resolution air temperature mapping in data-scarce areas by means of low-cost mobile measurements and machine learning</td>
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<td>Juste Raimbault and Michael Batty (University College London) Building and validating modular urban transportation models using scientific workflow systems</td>
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<td>Discussant:</td>
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### Session 9

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<th>Time</th>
<th>Location</th>
<th>Timezone</th>
<th>Presentation</th>
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| 7-9pm  | North America  | US East Coast: 2-4pm (GMT-5) | **MODELLING URBAN ACTIVITIES**  
- Rounaq Basu and Joseph Ferreira (Massachusetts Institute of Technology)  
  How do car-lite policies impact housing mobility choices? A LUTI microsimulation analysis  
- Nael Alsaleh and Bilal Farooq (Laboratory of Innovations in Transportation (LiTrans), Ryerson University)  
  Spatio-temporal Demand Modelling for On-Demand Transit Services  
- Xiaohu Zhang and Joseph Ferreira (Massachusetts Institute of Technology)  
  Sensitivity analysis of housing market simulation  
- He He and P. Christopher Zegras (Massachusetts Institute of Technology)  
  Temporally explicit models of firm behaviour  
Convenor and Discussant  
Joseph Ferreira (Massachusetts Institute of Technology)  
Host:  
Ying Jin (University of Cambridge) |

### Session 10

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<th>Time</th>
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<th>Timezone</th>
<th>Presentation</th>
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| 9-11pm | Trans-Atlantic | Toronto: 4-6pm     | **THE ECONOMICS OF CITIES**  
- Saeed Shakib, Jason Hawkins, Mark Purdon, and Khandker Nurul Habib (University of Toronto)  
  Development of an Integrated Land Use and Transportation Model for Planning Deep Decarbonization in the Greater Toronto Metropolitan Region, Canada  
- Aya Badawy, Nuno Pinto, and Richard Kingston (University of Manchester)  
  Simulating urban negotiations using agent-based modelling: the case of Section 106 negotiations in UK  
- Janody Pougala, Tim Hillel, Rico Krueger, and Michel Bierlaire (EPFL)  
  Parameter estimation for an integrated choice model of daily activity scheduling  
- Andrii Parkhomenko (University of Southern California) and Matthew Deventhal (Claremont McKenna College)  
  Spatial Implications of Telecommuting  
Discussant:  
Jamil Nur (University of Cambridge)  
Host:  
Li Wan (University of Cambridge) | (GMT-5)  
South California: 1-3pm (GMT-8) |
## Timelines for the online AUM2020 global workshop

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<tr>
<td>18 September 2020</td>
<td>Call for presentations launched</td>
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<tr>
<td>18 December 2020</td>
<td>Deadline for submitting abstract for and draft pdf of presentations</td>
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<tr>
<td>6 January 2021</td>
<td>Confirmation of presentation selection</td>
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<tr>
<td>27 January 2021</td>
<td>Submission of final pdf presentation and optional presentation recording</td>
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<tr>
<td>28 January 2021</td>
<td>Online global workshop day</td>
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