



# Programme

## CUPUM 2013

2-5 July

13th CUPUM international conference on  
Computers in Urban Planning and Urban Management

Design: Utrecht University – Faculty of Geosciences – Communication & Marketing [8484]  
Photo: Utrecht University – Faculty of Geosciences – Fred Trappenburg

## Welcome

Welcome to this 13th International Conference on Computers in Urban Planning and Urban Management (CUPUM) that takes place at Utrecht University, The Netherlands from July 2-5, 2013.

This programme provides an overview of all presentations at the conference and is based on the scientific effort of numerous authors who contribute to this conference by way of conference papers and posters.

Three keynote addresses will take place: on Wednesday by Prof. Mei-Po Kwan, on Thursday by Prof. Harry Timmermans and on Friday by Prof. Anthony G.O. Yeh.

Twenty six papers are published in the Springer book "Planning Support Systems for Sustainable Urban development". The conference papers and poster abstracts are published on an USB stick. Both Springer book chapters and conference papers have been subject to a double-blind peer-review process.

We thank all authors for their efforts to write a contribution to this conference and we are most grateful to all reviewers for their important work in providing useful feedback to all authors.

We wish you all a very pleasant and inspiring CUPUM 2013 conference.

Stan Geertman, Henk Ottens, John Stillwell, Fred Toppen, Ingeborg Koppenol



## CUPUM 2013 Programme Overview

### Tuesday July 2:

#### Aula Academiegebouw, Domplein 29

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18.00 – 20.00 **Registration**

18.30 – 20.30 Opening reception

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### Wednesday, July 3:

#### Ruppert Building, Leuvenlaan 21, Utrecht (De Uithof)

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08.00 – 18.00 Registration, Ruppertgebouw

09.00 – 09.30 Opening conference, Stan Geertman, chair organizing committee  
Welcome Bert van der Zwaan, rector Utrecht University  
(room Wit)

09.30 – 10.30 Keynote 1: Mei-Po Kwan, Utrecht University, The Netherlands  
(room Wit)

10.30 – 11.00 Coffee break

11.00 – 12.30	S1: room A Environment: Energy Modelling and Analysis	S2: room B ICT	S3: room C Simulation: Urban Modelling 1	S4: room D Population: Data and Estimation
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12.30 – 13.30 Lunch

13.30 – 15.00	S5: room A Environment: Disaster Evaluation	S6: room B Urban: Planning	S7: room C Simulation: Agent-based Modelling	S8: room D Population: Mobility
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15.00 – 16.00 Poster session, Hall Ruppertgebouw

16.00 – 17.30	S9: room A Environment: Carbon Emissions	S10: room B Urban: Measurement and Modelling	S11: room C Simulation: Urban Modelling 2	S12: room D Population: Residential Segregation
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## Thursday July 4:

### Ruppert Building, Leuvenlaan 21, Utrecht (De Uithof)

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08.00 – 18.00	Registration			
09.00 – 10.00	Keynote 2: Harry Timmermans, Eindhoven University of Technology, The Netherlands (room Wit)			
10.00 – 10.30	Coffee break			
10.30 – 12.00	S13: room A Environment: Performance Evaluation	S14: room B Planning Support Systems: Urban Planning	S15: room C Land Use Modelling	
12.00 – 13.00	Lunch and poster session continued			
13.00 – 14.30	S16: room A Transport: flow Estimation and Monitoring	S17: room B Planning Support Systems: Land Use	S18: room C Infrastructure	S19: room D Spatial Analysis 1
14.30 – 15.00	Coffee break			
15.00 – 16.00	S20: room A Transport: GIS and Modelling	S21: room B Planning Support Systems: Participation	S22: room C Land	S23: room D Spatial Analysis 2
16.15 – 17.15	S24: room A Transport: Planning and Analysis	S25: room B Planning Support Systems: Service Planning	S26: room C Spatial Analysis and Modelling	
19.00	Drinks before conference dinner, <b>Kloostergang, Academiegebouw, Domplein 29</b>			
20.00 – 22.30	Conference dinner, <b>Aula Academiegebouw, Domplein 29</b> Both events are included in the conference fee, however attendance have to be indicated on the registration form or at the registration desk before Wednesday 13.00 hours			

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## Friday July 5:

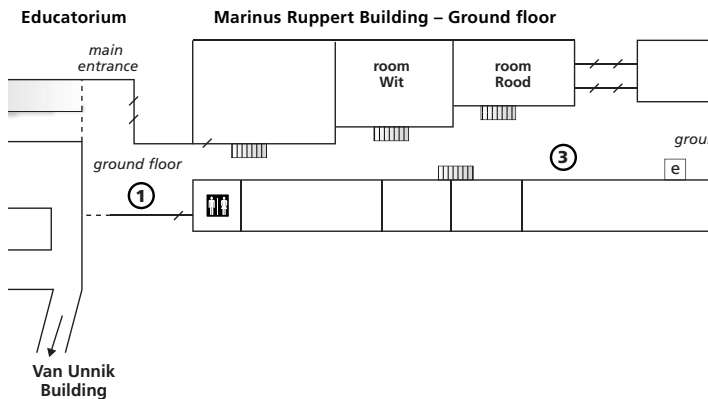
### Ruppert Building, Leuvenlaan 21, Utrecht (De Uithof)

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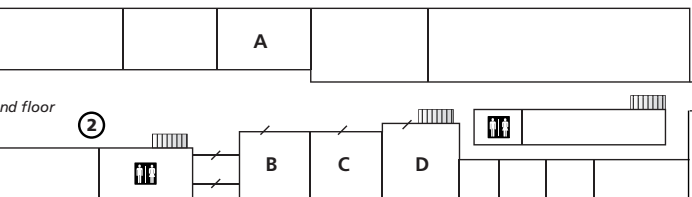
09.00 – 13.00	Registration		
09.30 – 11.00	S27: room A Transport: Buses and Bicycles	S28: room B Planning Support Systems	S29: room D Urban: Sustainability
11.00 – 11.30	Coffee break		
11.30 – 12.30	Keynote 3: Anthony G.O. Yeh, University of Hong Kong, China (room Wit)		
12.30 – 13.30	Closing session (room Wit)		
13.30 – ...	Fieldtrips		




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# CUPUM 2013 Venue







-  stairs
-  elevator
-  door/entrance

-  1 Registration
-  2 Poster session

-  3 Coffe, tea

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# CUPUM 2013 detailed programme

## Tuesday July 2

18.00 – 20.00 **Registration**, University Building, Domplein 29

18.30 – 20.30 **Opening reception**, Aula University Building, Domplein

## Wednesday July 3

08.00 – 18.00 **Registration**, Hall Ruppert Building

09.00 – 09.30 **Opening session** (room Wit, chair Stan Geertman)  
Stan Geertman, chair CUPUM 2013  
Bert van der Zwaan, rector magnificus Utrecht University

09.30 – 10.30 **Keynote presentation** (room Wit, chair Stan Geertman)  
Advances in GIS for Neighborhood and Health Research (Mei-Po Kwan, Utrecht University)

10.30 – 11.00 Coffee break, Hall Ruppert Building

11.00 – 12.30 **Parallel session 1: Environment: Energy Modelling and Analysis** (room A, chair: Henk Ottens)

- A Comprehensive Review of Existing Urban Energy Models in the Built Environment (Saleh Mohammadi, Bauke de Vries and Wim Schaefer)
- Modelling the Energy Transition in Cities (Felix Huber, Björn Schwarze, Klaus Spiekermann and Michael Wegener)
- Analyzing the Decision Making Process of Property Owners

in the Built Environment under Different Renewable Energy Policies (Saleh Mohammadi, Bauke de Vries and Wim Schaefer)

- A GIS-based performance metrics for designing a low energy urban agriculture system (Steven Jige Quan, John David Minter and Perry Pei-Ju Yang)

11.00 – 12.30 **Parallel session 2: ICT** (room B, chair: Toshiyuki Kaneda)

- Implementation Gap and Organisational Obstacles when Applying Information Communication Technology Innovations in Spatial Planning Practice (Kai Zhou)
- “Keikan-Brain”: A Device that Builds Knowledge and Consciousness About a Townscape (Rikutarō Manabe, Shin Aiba and Fumiko Ito)
- Analysis of Author-Selected Keywords in Urban Planning and Urban Management Papers (Masafumi Ono and Ryosuke Shibasaki)
- Evolution of Geospatial Web Services: proving 3D Scenes for Urban Management and Planning (Nuno Oliveira and Jorge Rocha)

11.00 – 12.30 **Parallel session 3: Simulation: Urban Modelling 1**

(room C, chair: Michael Batty)

- A Web-based Fuzzy CA Model for Urban Growth Simulation (Yan Liu)
- Integration of Simulation Models in Planning for Local Sustainable Development. The Case of Río Ceballos in Córdoba’s Metropolitan Area (Cristian Gabriel Terreno)
- Qualitative and Quantitative Comparisons of Agent-based and Cell-based Synthesis Estimation Methods of Base-year Data for Land-use Microsimulations (Kazuaki Miyamoto, Nao Sugiki, Noriko Otani and Varameth Vichiensan)

11.00 – 12.30 **Parallel session 4: Population: Data and Estimation**

(room D, chair: Eric Koomen)

- Access to UK Census Data for Spatial Analysis: Towards an Integrated Census Support Service (John Stillwell, Justin Hayes, Rob Dymond-Green, James Reid, Oliver Duke-Williams, Adam Dennett and Jo Wathan)
- Development of Micropopulation Census Through Disaggregation of National Population Census (Yuki Akiyama, Hiroyuki Takada and Ryosuke Shibasaki)
- Estimation of Day-long Population Dynamics of Workers Using Nation-wide Statistical Data and its Application to the Keihanshin Metropolitan Area, Japan (Keisuke Himoto, Jumpei Kimata, Tomoaki Nishino and Takeyoshi Tanaka)

12.30 – 13.30 Lunch, Hall Ruppert Building

13.30 – 15.00 **Parallel session 5: Environment: Disaster Evaluation**

(room A, chair: Antonio Nelson Rodrigues de Silva)

- Evaluation of Catastrophic Earthquake Damage Throughout Japan using Estimated Micro Data (Yoshiki Ogawa, Yuki Akiyama, Hiroaki Sengoku and Ryosuke Shibasaki)
- Analysis of the Reconstruction Process After the Great East Japan Earthquake Using GPS Data (Ryosuke Toida, Yoshihide Sekimoto, Teerayut Horanont, Hiroshi Kanasugi and Ryosuke Shibsaki)
- Evaluation of Living Environment for Refugees after the Great East Japan Earthquake in Each Detailed District (Tsuyoshi Takano, Hiroyoshi Morita, Takuya Togawa, Masayuki Fukumoto, Aoto Mimuro, Naoki Shibahara, Hirokazu Kato and Yoshitsugu Hayashi)

- Regional Analysis of Urban Development Based on an Evacuation Process in Earthquake Disaster Situations (Kiichiro Kumagai)

13.30 – 15.00 **Parallel session 6: Urban: Planning**

(room B, chair: Kenichi Sugihara)

- A Survey of U.S. Metropolitan Spatial Planning Infrastructures: Institutions, Models, and Tools (Robert Goodspeed)
- Bridging Metropolitan Growth and Regional Zoning in Greater Des Moines, Iowa U.S. (Shannon Thol, Monica Haddad and Gary Taylor)
- An Interactive Decision Choice Model to Support Brownfield Redevelopment Partnerships (Branco Glumac, Qi Han and Wim Schaefer)

13.30 – 15.00 **Parallel session 7: Simulation: Agent-based Modelling**

(room C, chair: Michael Batty)

- Policy Simulation Trials of an Intelligent Shop-Around Agent Model (Takumi Yoshida and Toshiyuki Kaneda)
- Welfare Facilities for Elderly People: Agent-Based Simulation for Planning Support of Daycare Centre Development in Japanese Local City (Yan Ma, Zhenjiang Shen and Xiaolu Gao)
- Negotiated Heights: An Agent-based Model of Density in Residential Patterns (Sara Levy, Karel Martens, Rob van der Heijden and Tatiana Filatova)
- Simulating the dynamics between the development of creative industries and urban spatial structure: an agent-based model (Helin Liu and Elisabete Silva)

13.30 – 15.00 **Parallel session 8: Population: Mobility**

(room D, chair: Toshi Osaragi)

- Walk Route: A New Methodology to Find the Optimal

- Walking Route in the City of Atlanta (Subhrajit Guhathakurta, Ge Zhang, Manoj Panguluru and Ramachandra Sivakumar)
- Expose Urban Activities from Human Flow (Teerayut Horanont, Apichon Witayangkurn, Yoshihide Sekimoto and Shibasaki Ryosuke)
  - Identifying the Factors Affecting Pedestrian Flow Volume and Walkability Using the 'Seoul Pedestrian Survey' Data (Won Do Lee)
  - The GIS-based Research of Measurement and Planning on Walkability of Educational Public Service Facilities: Taking Wuhan City for Illustration (Yin Jie)

15.00 – 16.00 **Poster Session**, Hall Ruppert Building and coffee break, Hall Ruppert Building

- 1 Spatial Analysis of Urban and Regional Environments for the Mitigation of Disasters Caused by Acts of Arson (Keiko Inagaki and Satoru Sadohara)
- 2 The Experimental Development of a Management Tool for Promoting the Activities of a Local Community about Disaster Mitigation (Takatoshi Yamamoto, Akira Ohgai and Naohiro Nakazato)
- 3 Creation of a state of the art on SEA using community detection on citation network of papers (Andrea De Montis, Antonio Ledda, Amedeo Ganciu, Mario Barra and Simone Caschili)
- 4 Strategic Environmental Assessment and landscape master planning: building an on-line survey for Sardinia, Italy (Andrea De Montis, Antonio Ledda, Amedeo Ganciu, Mario Barra and Simone Caschili)
- 5 Automatic land-cover change detection using RADARSAT-2 Images (Xiaohu Zhang and Anthony Gar-On Yeh)

- 6 Uncertainty-enabled Model Web 'Albatross' (Soora Rasouli, Harry Timmermans, Christoph Stasch and Edzer Pebesma)
- 7 Sociodynamic Discrete Choice on Networks: The Role of Utility Parameters and Connectivity in Emergent Outcomes (Elenna R. Dugundji and László Gulyás)
- 8 A Support Tool Coupling Web-GIS and Virtual Reality to Explore Improvement Draft Plans in Densely Built-up Areas (Kazuki Karashima and Akira Ohgai)
- 9 Agent Based Simulation Model of Consensus Building on Locating a Nuisance Facility (Daiki Yamashita, Takeshi Arai and Hidetsugu Morimoto)
- 10 Multi-agent Simulation about Mixed Traffic of Cars and Pedestrians (Hideki Fujii and Shinobu Yoshimura)
- 11 A Comprehensive Micro Simulation of Gentrification (Cheng Liu and David O'Sullivan)
- 12 Spatial Analysis of Education Inequality in Brazilian Municipalities, 2000-2010 (Monica Haddad)
- 13 Legal Frame for Indicators of Sustainable Regional Development. A Case Study (José Francisco de Carvalho Rezende and Maria Cristina Fogliatti de Sinay)
- 14 Incorporating Social Sustainability into Brownfield Redevelopment Projects (Ying Liu)
- 15 The influence on land use and commuting condition by Tohoku Through Line (Tomoki Ishikura and Hiroyuki Tsuji)
- 16 Stochastic Variability in Trip Distribution Predictions of a Rule-Based Model of Activity-Travel Demand (Soora Rasouli and Harry Timmermans)
- 17 A Simple Relationship between Neighborhood and Land Use Change: An Empirical Study in Japan (Hiroki Muranaka and Takeshi Arai)
- 18 Sub-District Level Zoning by Building Spatial Pattern: Fethiye City Center Case (Serkan Kemec and Sebnem Duzgun)

- 19 An Experimental Approach to Mapping the Urban Street Spatial Form (Ziyu Tong and Wowo Ding)
- 20 Spatial Measurement of Urban Space Based on 3D Building Environment Index (Ye Tao)
- 21 How to visualize the invisible – Simulating air pollution dispersions in a 3D city model (Beata Wästberg, Jonas Tornberg, Monica Billger, Marie Haeger-Eugensson and Karin Sjöberg)
- 22 The Functionality of Underground Pedestrian System in Shanghai (Jianqiang Cui, Andrew Allan and Dong Lin)
- 23 A Study on Residents Willingness to Pay for Personal Carbon Trading and Relevant Factors (Kui Zhou, San Jia, Akio Kondo, Akiko Kondo and Alex Gordillo)

16.00 – 17.30 **Parallel session 9: Environmental: Carbon Emissions**

(room A, chair: Michael Wegener)

- Urban CO<sub>2</sub> Planning: A Decision Support System (Ivan Blečić, Arnaldo Cecchini, Matthias Falk, Serena Marras, David R. Pyles, Donatella Spano and Giuseppe A. Trunfio)
- Integrated CO<sub>2</sub> Emissions Evaluation System for Climate Change Mitigation and Flood Risk Adaptation Scenarios (Kumiko Nakamichi, Yoshiki Yamagata and Hajime Seya)
- The Effect of Adelaide's Proposed Transit Oriented Developments in Reducing Private Car Fuel Usage and Carbon Emissions (Andrew Allan)
- The Impact of Electric Vehicles on Travel and Electricity Demand in Nagoya (Ryo Kanamori, Takayuki Morikawa, Masaya Okumiya, Toshiyuki Yamamoto and Takayuki Ito)

16.00 – 17.30 **Parallel session 10: Urban: Measurement and Modelling**

(room B, chair: Kazuaki Miyamoto)

- Measuring Location in Residential Location Choice: An



- Empirical Study of the Canton of Zurich (Patrick M. Schirmer, Michael A.B. van Eggermond and Kay W. Axhausen)
- Between Green and Grey: Towards a New Green Volume Indicator for Cities (Azarakhsh Rafiee, Eduardo Dias and Eric Koomen)
- Modelling Transformation in Neighborhood with Urban Redevelopment in Built-up Area of Tokyo Incorporating Effect of Interaction (Akiko Kokubun, Eiji Hato and Yuki Oyama)
- Flexible Geospatial Platform for Distributed and Collaborative Urban Modelling (Yi Zhu, Mi Diao, Joseph Ferreira, Weifeng Li and Shan Jiang)

16.00 – 17.30 **Parallel session 11: Urban Modelling 2**

(room C, chair: Earl Bossard)

- A Simulation and Application of Population and Employment Spatial Distribution at a Micro-scale: A Case Study of Beijing (Lianna He, Xiaochun Huang, Chengyin Cui and Zhenzhen Cui)
- Simulating Urban Form and Energy Consumption in the Pearl River Delta under Different Development Strategies (Yimin Chen, Xia Li and Bin Ai)
- Structuring Reverse Logistics for Waste Cooking Oil with Geographic Information Systems (Alessandra Fonseca, Raquel Oliveira and Renato Lima)
- Cellular Automata for Urban Growth Modelling: A Chronological Review of Factors in Transition Rules (Agung Wahyudi and Yan Liu)

16.00 – 17.30 **Parallel session 12: Population: Residential Segregation**

(room D, chair: John Stillwell)

- Analysing Role of Culture in Ethnic Segregation and Congregation in Sydney (Awais Piracha and Tingting Cui)

- Residential Segregation and Well-being Inequality Between Local and Migrant Elderly in Shanghai (Yafei Liu, Martin Dijst and Stan Geertman)
- Governance Approaches in the Regeneration of Immigrant communities: Potential Roles of Planning Support Systems (PSS) (Yanliu Lin and Stan Geertman)

## Thursday July 4

08.00 – 18.00 Registration, Hall Ruppert Building

09.00 – 10.00 **Keynote presentation**

(Room Wit, Ruppert Building, chair Henk Ottens)

- What-ifs, if-whats and maybes: Sketch of ubiquitous collaborative decision support technology. (Harry Timmermans, Eindhoven University of Technology)

10.00 – 10.30 Coffee break, Hall Ruppert Building

10.30 – 12.00 **Parallel session 13: Environment: Performance Evaluation**

(room A, chair: Arnaldo Cecchini)

- Measuring Quality of Life: An Integrated Evaluation of Built Environment (Hitomi Nakanishi, Hamish Sinclair and Jessica Lintern)
- Environmental Performance Evaluation of District Using 4D-GIS (Hiroyoshi Morita, Kenji Sugimoto, Hirokazu Kato, Akito Murayama, Satoru Iizuka, Naoki Shibahara and Yoshitsugu Hayashi)
- Generalisation of Planning Data as a Contribution to Strategic Environmental Assessments (SEA): The Example of a City-Wide Biotope-Type Assessment for Berlin (Michael Foerster,

Antje Köppen, Johanna Ferretti, Johann Köppel and Birgit Kleinschmit)

- Planning Learning for Stakeholders to Consider Residential Environment Improvement in Densely Built-up Area using 3DVIR (Zhenjiang Shen, Zhenhan Lei, Kenichi Suguhara, Yasuha Mizukami, Sayaka Yamamoto and Yan Ma)

10.30 – 12.00 **Parallel session 14: Planning Support Systems: Urban Planning** (room B, chair: Joseph Ferreira)

- From Integrality to Interdisciplinarity: PSS to Improve Communication Among Disciplines (Peter Pelzer and Stan Geertman)
- Do Planning Support Systems Improve Planning? Testing the Claim in a Controlled Experiment (Marco te Brömmelstroet, Peter Pelzer, Ralph Klerx and Sander Schaminée)
- Planning Support Systems for Fiscally Sustainable Planning (Scott N. Lieske, Roger H. Coupal, Jeffrey D. Hamerlinck, Donald M. McLeod and Anna M. Scofield)
- An Evidence-based Planning Support Methodology Estimating Value Creation of Planning Scenarios in the Chinese Context (Hong Hu, Stan Geertman and Pieter Hooimeijer)

10.30 – 12.00 **Parallel session 15: Land Use Modelling** (room C, chair: Anthony G.O. Yeh)

- Land Use Modelling in the Czech Republic: An Experimental Approach with Limited Data (Jakub Vorel and Stanislav Grill)
- Application of Land Use Model Combined with GIS and RS Technology in Supporting Urban Spatial Planning (Rui Zhou, Hailong Su, Xinjun Wang, Yuanman Hu and Fenge Zhang)
- Land Use Pattern Scenario Analysis Using Planner Agents: A Preliminary Study (Yongping Zhang and Ying Long)

- A Model of Land Use Change in City Areas Based on the Conversion of Unit Lots (Toshihiro Osaragi and Teruo Nishimatsu)

12.00 – 13.00 Lunch and **continued poster session**, Hall Ruppert Building

13.00 – 14.30 **Parallel session 16: Transport: Flow Estimation and Monitoring** (room A, chair: Ray Wyatt)

- Integrating RFID and GIS to Support Urban Transportation Management and Planning of Hajj (Nabeel Koshak and Akram Nour)
- Trip Reconstruction and Transportation Mode Extraction on Low Data Rate GPS Data from Mobile Phone (Apichon Witayangkurn, Teerayut Horanont, Natsumi Ono, Yoshihide Sekimoto and Ryosuke Shibasaki)
- Estimation of People Flow in a City Using Particle Filter with Person Trip Survey, Building Data and Traffic Count (Toshikazu Nakamura, Yoshihide Sekimoto and Ryosuke Shibasaki)

13.00 – 14.30 **Parallel session 17: Planning Support Systems: Land Use** (room B, chair: Fred Toppen)

- The Online What if? Planning Support System (Christopher Pettit, Richard Klosterman, Marcos Nino-Ruiz, Ivo Widjaja, Patrizia Russo, Martin Tomko, Richard Sinnott and Robert Stimson)
- LACONISS: A Planning Support System for Land Consolidation (Demetris Demetriou, John Stillwell and Linda See)
- Applying and Improving Planning Support Systems for Sustainable Urban Development (Eric Koomen and Bart Rijken)
- An Evidence-based Planning Support Methodology for Site Selection of Green Apartments Concerning Preferences of

Various Social Groups in the Chinese Context (Hong Hu, Stan Geertman and Pieter Hooimeijer)

13.00 – 14.30 **Parallel session 18: Infrastructure**

(room C, chair: Joseph Ferreira)

- Development of Bridge Management System Using Three-Dimensional Models (Tomoiro Snimizu, Shin Yoshikawa, Hideyuki Takinami and Tadamasu Nakayama)
- Automatic Generation of 3D Building Models with General Shaped Roofs by Straight Skeleton Computation (Kenichi Sugihara and Zhen-jiang Shen)
- Environmental Noise: The Influence of the Relationship Between the Height and Width of Urban Canyons (Andre Mendonça, Marcia Suriano, Lea Souza and Eliane Viviani)

13.00 – 14.30 **Parallel session 19: Spatial Analysis 1**

(room D, chair: Kiichiro Kumagai)

- Human Sensory Assessment Linked with Geo- and Mobile-Data Processing Methods in Urban Planning Exemplified on Different Planning Cultures in Germany and Egypt (Benjamin S. Bergner, Jan-Philipp Exner, Martin Memmel, Rania Raslan, Dina Taha, Manar Talal and Peter Zeile)
- The Use of Spatial Modelling Techniques in Landscape Studies (Gerson José Mattos Freire, Camila Zyngier and Ana Clara Mourão Moura)
- Restoration of Cityscape in Early Modern Naniwa (Shin Yoshikawa and Kazunari Tanaka)

14.30 – 15.00 Coffee break, Hall Ruppert Building

15.00 – 16.00 **Parallel session 20: Transport: GIS and Modelling**

(room A, chair: Renato da Silva Lima)

- A Procedure Using GIS to Analyse the Access by Non-motorized Transport to Transit Stations (Fernanda Borges Monteiro and Vânia Barcellos Gouvêa Campos)
- Locations with Frequent Pedestrian Vehicle Collisions: Their Transportation and Neighbourhood Environment Characteristics in Seattle and King County, Washington (Junfeng Jiao, Anne Moudon and Yuan Li)
- Developing a Transport GIS Database for Kazakhstan and Uzbekistan (Jiawen Yang)

15.00 – 16.00 **Parallel session 21: Planning Support Systems:**

**Participation** (room B, chair: Yanliu Lin)

- The Participatory Cube: A Framework for Analysis of Online Participation Platforms (Alenka Poplin, Gilberto Corso Pereira and Maria Célia Furtado Rocha)
- Computer-Mediated e-Negotiation Support System (Cahyono Susetyo, Harry Timmermans and Bauke de Vries)
- Case Study Analysis of Planning Support System Implementation in Local Comprehensive Planning (Jeffrey Hamerlinck)

15.00 – 16.00 **Parallel session 22: Land** (room C, chair: Dick Klosterman)

- Monthly Monitoring of Land Cover Change from Barren Land to Built-up Areas Using RADARSAT-2 PoISAR Images (Zhixin Qi and Anthony Yeh)
- A Multilevel Model Based Hedonic Analysis of 3D Visibility: An Empirical Case Study of Yokohama Baycity (Yoshiki Yamagata, Daisuke Murakami, Hajime Seya and Morito Tsutsumi)
- Integrated Land Use and Transportation Planning Based on Resource and Environmental Constraints: a Case Study on

Luohe City in China (Hailong Su, Yi Wang, Yinghui Tan and Rui Zhou)

15.00 – 16.00 **Parallel session 23: Spatial Analysis 2**

(room D, chair: Antonio Nelson Rodrigues de Silva)

- Comparative Study of Factors Influencing Used Housing Prices in Osaka and Fukuoka Using Geographically Weighted Regression (Fumika Yamazaki, Shichen Zhao and Shun Yamashiro)
- Spatio-Temporal Cluster Detection of Point Events by Hierarchical Search of Adjacent Area Unit Combinations (Ryo Inoue, Shiho Kasuya and Takuya Watanabe)
- Spatial Analysis and Map-Based Visualization of New Tram Line Projects (Fumiko K. Perry, Koji Yoshikawa and Naoyuki Tsukamoto)

16.00 – 16.30 Coffee break, Hall Ruppert Building

16.30 – 17.30 **Parallel session 24: Transport: Planning and Analysis**

(room A, chair: Anthony G.O. Yeh)

- Planning for Land-use and Transportation Alternatives: Understanding the Impact of Urban Sprawl on Household Non-work Travel Decisions (Weifeng Li)
- Analysing Weekend Leisure Travel Behavior Characteristics by Reference Group Focused on Family Life (Jang Yoon Jeung and Lee Seungil)
- Generating Hypotheses Through Plan Prediction: A Transport Planning Example (Ray Wyatt)

16.30 – 17.30 **Parallel session 25: Planning Support Systems: Service Planning** (room B, chair: Stan Geertman)

- Interactive Crime Mapping Systems: Opportunities and Risks

from the Point of Spatial Planning (Willi Wendt and Jan-Philipp Exner)

- Safe City Monitoring System: GIS Web-based Application in Crime Monitoring in Malaysia (Kamalruddin Shamsudin, Toh Lay See, Peter Valentine Amandus Jr, Musa Mohamed and Zainal Abidin Kasim)
- Regional Electricity Planning Support System: Electricity Demand Modelling with Assimilation of Smart Electricity Meter Data (Hajime Seya and Yoshiki Yamagata)

16.30 – 17.30 **Parallel session 26: Spatial Analysis and Modelling**

(room C, chair: Andrew Allen)

- The IMAGE Studio: A Tool for Comparative Internal Migration Analysis and Modelling (John Stillwell, Konstantinos Daras, Nik Lomax, Martin Bell and Tom Wilson)
- The Introduction of the Index of Sustainable Urban Mobility in a Scenario-based Planning Approach (Marcelo Mancini and Antonio Nelson Rodrigues de Silva)
- Supporting Planning Processes by the Use of Dynamic Visualisation (Stefano Pensa, Elena Masala and Isabella Lami)

## **Friday July 5**

09.00 – 13.00 **Registration**, Hall Ruppert Building

09.30 – 11.00 **Parallel session 27: Transport, Buses and Bicycles**

(room A, chair: Andrew Allan)

- A Computer-aided Approach for Planning Sustainable Trips to Large Trip Generators: The Case of Cycling Routes Serving University Campuses (Thais de Cássia Martinelli Guerreiro and Antônio Néelson Rodrigues da Silva)



- Modelling and Finding Bicycle-Friendly Neighborhoods in America's Most Bicycle-Friendly City (Earl Bossard)
- A Framework for Bus Transit Reform and Redesign: Case Study Kolkata (Debapratim Pandit and Shreya Das)
- Methodology to Determine Level of Service for Bus Transit in a Developing Country Like India (Shreya Das and Debapratim Pandit)

09.30 – 11.00 **Parallel session 28: Planning Support Systems**

(room B, chair: Dick Klosterman)

- Comparative Analysis of Three Planning Support Software (PSS) Programs and Current Applications of Planning Support System in China (Yuan Li and Junfeng Jiao)
- Application of Socio-technical Research Methods in Understanding the Genesis and Potential Sustainability of Planning Support Systems (Wayne Williamson and Bruno Parolin)
- An Applied Planning Support Toolkit Including Quantitative Methods, Software and Models in China (Ying Long)
- Ecosystem Services, Green Infrastructure and the Role of Planning Support Systems (Brian Deal, Varkki Pallathucheril and Tom Heavisides)

09.30 – 11.00 **Parallel session 29: Urban: Sustainability**

(room C, chair: Joseph Ferreira)

- A Sustainability Impact Assessment Model Based on Functional Diversity (Qi Han, Bauke de Vries and Jan Koops)
- Beauty and Brains: Integrating Easy Spatial Design and Advanced Urban Sustainability Models (Dias, Linde, Rafiee, Koomen en Scholten. daarnaast vervalt Koekkoek)
- Sustainable Densification and Greenification in the Inner City of Rotterdam (Judith Borsboom, Duzan Doepel and Nico Tillie)

- Using MapTable® to Learn about Sustainable Urban Development (Peter Pelzer, Gustavo Arciniegas, Stan Geertman and Jaap de Kroes)

11.00 – 11.30 Coffee break, Hall Ruppert Building

11.30 – 12.30 **Keynote presentation** (room Wit, chair John Stillwell)

- Making Intelligent and Smart Cities More Intelligent  
**(Anthony G.O. Yeh, The University of Hong Kong)**

12.30 – 13.30 **Closing session** (room Wit, chair Stan Geertman)

## **Fieldtrips**

## CUPUM 2013 committees

### Programme Committee

Stan Geertman, Utrecht University – John Stillwell, University of Leeds – Fred Toppen, Utrecht University

### Organizing Committee

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