Parallel Session 1 (15:30-17:00, Wednesday 24th)

15-minute talks followed by 5 minutes for questions

	Track A: Land cover and sustainability	**Track B: Neighbourhoods and demographics**	**Track C: Understanding and using data**
15:30	(55) A Land Cover-Based Assessment of Ecosystem Service Provision in UK Farms and Estates *Thomas Burke, Duncan Whyatt, Alan Blackburn, Clare Rowland and Jon Abbatt*	(13) A Scalable Analytical Framework for Spatio-Temporal Analysis of Neighbourhood Change: A Sequence Analysis Approach *Nikos Patias, Francisco Rowe and Stefano Cavazzi*	(20) Identifying the appropriate spatial resolution for the analysis of crime patterns *Nick Malleson, Wouter Steenbeek and Martin Andresen*
15:50	(73) Re-wetted land use capability assessment for North West England *James Deed, Nigel Watson and Duncan Whyatt*	(67) Using the spatial analysis of family names to gain insight into demographic change *Justin van Dijk, Guy Lansley, Tian Lan and Paul Longley*	(22) SWEEP: the Series With Elastic Extents Problem and "Gerrymandering" Urban Time Series *Samuel Stehle*
16:10	(95) An integrated approach to evaluating critical environmental and ecological landscape characteristics across gradients of land-sparing-sharing and urbanity *Matthew Dennis and Philip James*	(49) Fuzzy Geodemographics: Application of Fuzzy c-means *Burcin Yazgi Walsh and Chris Brunsdon*	(75) Geocoding historical census records in England and Wales *Tian Lan, Guy Lansley, Justin van Dijk and Paul Longley*
16:30	(74) Global Agricultural Land Loss due to Urban Expansion: Implications on the Sustainability of Global Food Security *Taher M. Radwan, J. Duncan Whyatt, G. Alan Blackburn and Peter M. Atkinson*	(83) Using Big Data to measure the demographic changes in a gentrifying neighbourhood *Guy Lansley, Wen Li and Paul Longley*	(29) A Global Synopsis of OGC Web Services *J Moules*

Parallel Session 2 (09:00-10:30, Thursday 25th)

15-minute talks followed by 5 minutes for questions

	Track A: Machine learning and statistics	**Track B: Exploring place**	**Track C: Households and house prices**
09:05	(59) Multi-hazard Risk Assessment by Integrating Machine Learning and GIS *Surassawadee Phoompanich, Stuart Barr and Rachel Gaulton*	(87) Exploratory spatial analysis of English place names *Mike Coombes and Colin Wymer*	(24) Taking household data as ancillary information in areal interpolation *Wen Zeng and Alexis Comber*
09:25	(86) Learning Digital Geographies through a stacked Multi-Modal Autoencoder *Pengyuan Liu and Stefano De Sabbata*	(30) Change in Artificial Land Use over time across European Cities: A rescaled radial perspective *Paul Kilgarriff, Remi Lemoy and Geoffrey Caruso*	(77) Performance of home detection from mobile phone data *Maarten Vanhoof, Clement Lee and Zbigniew Smoreda*
09:45	(40) Signed chi-squares revisited *Martin Charlton, Chris Brunsdon, Paul Harris and Lex Comber*	(78) Where are the centres of a city? A method to analyze centrality and modal equity of transport in comparable manner across city regions *Henrikki Tenkanen, Jeison Londoño Espinosa and Tuuli Toivonen*	(65) A new insight into residential house price variation across England through linking Land Registry Price Paid Data and Domestic Energy Performance Certificates *Bin Chi, Adam Dennett and Thomas Oléron-Evans*
10:05	(61) From Minkowski Sum to Concave Hull: Two Case Studies of Open Source Development at Ordnance Survey *Sheng Zhou and Jonathan Simmons*	(45) Understanding tourist multipurpose travel behaviour using Weibo check-ins *Zi Ye, Graham Clarke and Andy Newing*	(41) Geo-propagation from Incomplete Spatial Distribution Data: A Case Study of House Price Estimation *Di Zhu, Tao Cheng and Yu Liu*

Parallel Session 3 (11:00-12:15, Thursday 25th)

5-minute talks followed by 10 minutes for discussion

	Track A: Geospatial analysis	**Track B: Environment and crime**	**Track C: Human issues**
11:00	(5) Visualising geographic information: improving interpretation through cartograms, hexograms and regular grids *Samuel Langton and Reka Solymosi*	(16) Modelling the dynamics of police demand and resourcing over space and time. *Sedar Olmez, Alison Heppenstall, Daniel Birks and Thomas French*	(12) Using eye tracking to assess the effectiveness of geovisualisations for multidisciplinary decision making in environmental engineering *Jess Hepburn*
11:15	(9) Exploring the Dynamics of Geodemographics *Jennie Gray, Lisa Buckner and Alexis Comber*	(10) Using Agent-Based Models to Inform Policing Decisions in Crime Clusters *Verity Tether, Alison Heppenstall, Nicholas Malleson and Daniel Birks*	(33) Simulating Crowds in Real-Time with Agent-Based Modelling and a Particle Filter *Kevin Minors, Andrew West and Nicolas Malleson*
11:30	(62) Data Assimilation for Agent-Based Modelling: An Implementation of the Ensemble Kalman Filter *Keiran Suchak, Nick Malleson and Jonathan Ward*	(63) Multi-objective spatial optimization utilising cloud-enabled evolutionary computing. *Grant Tregonning*	(27) Developing a methodology for validating pedestrian counts from Wi-Fi sensors to aid in quantifying the ambient population *Annabel Whipp, Nick Malleson and Jon Ward*
11:45	(6) Integrating spatiotemporal dynamics for modelling disruption to road travel in flood events *Kate Rawlings, Jim Wright, Alan Smith, Sally Brown and Jeremiah Nieves*	(43) Understanding patterns of consumption-based greenhouse gas emissions in Bristol *Lena Kilian*	(58) Unpacking aspects of what we see from retail premises to characteristics of the human environment *Sam Comber and Dani Arribas-Bel*
12:00	(70) Optimal Land Use Allocation for the Heathrow Opportunity Area Using Multi-Objective Linear Programming *Melda Salhab and Thomas Oleron-Evans*	(51) A conceptual Model of dynamic Urban potential Energy balance and pilot Model *Gengze Li, Ian Philips and Dave Milne*	(15) The role of geospatial data in UK third sector service provision *James Bowles*

Parallel Session 4 (15:30-16:30, Thursday 25th)

15-minute talks followed by 5 minutes for questions

	Track A: Spatial modelling	**Track B: Retail and consumers**	**Track C: Analysing bike share data**
15:30	(52) Spatial Interaction Modelling for Large-Scale Infrastructure Projects *Andrew Smith and Nik Lomax*	(80) Assessing the Value of Footfall Data in Retail Analytics *Terje Trasberg, James Cheshire and Paul Longley*	(82) Detecting Journeys in Bicycle Sharing Systems from Docking Station Counts *James Todd, Oliver O'Brien and James Cheshire*
15:50	(89) Simulating change in cultural landscapes: towards a Historic Landscape Modelling approach. *Francesco Carrer, Nurdan Erdogan, Ebru Ersoy, Betul Cavdar, Gunder Varinlioglu, Mark Jackson, Tevfik Emre Serifoglu, Engin Nurlu and Sam Turner*	(42) A comparative analysis: Retailers' locations and socio-economic deprivation *Oluwole Adeniyi, Paul Whysall and Abraham Brown*	(85) Locating stations in bike-sharing service: a special maximal covering location problem *Huanfa Chen, Yang Zhang and Tao Cheng*
16:10	(23) Modelling the impact of recreational activities to inform management of Marine Protected Areas *Paula Lightfoot, Catherine Scott and Clare Fitzsimmons*	(54) Local area estimation of expenditure profiles and consumer attitudes *William James and Nik Lomax*	(8) Combining network methods with longitudinal data analysis to examine spatio-temporal variation in bike sharing data *Sarah Gadd, Peter Tennant, Mark S Gilthorpe and Alison Heppenstall*

Parallel Session 5 (09:30-11:00, Friday 26th)

15-minute talks followed by 5 minutes for questions

	Track A: Healthcare	**Track B: Collecting and visualising data**	**Track C: Transport analysis**
09:30	(31) Spatially optimized health services – Effectiveness and equality of primary health care service network accessibility in Northern Ostrobothnia *Ossi Kotavaara and Timo Pohjosenperä*	(25) Cartograms Work Backwards *Chris Brunsdon and Martin Charlton*	(34) Defining input parameters of Fuzzy Inference Model for detecting Traffic congestions *Maja Kalinic and Andreas Keler*
09:50	(79) Dynamic Accessibility and the Healthcare Ecosystem *Alfred Long, Jens Kandt, Alistair Leak and Paul Longley*	(26) Visualising Origin-Destination Data for Geographical Analysis: An Evaluation of Techniques *Kim Butterfield, Roger Beecham and Alison Heppenstall*	(37) Understanding the Dynamics and Context of New York Transportation Hubs *Yunzhe Liu, Alex Singleton and Daniel Arribas-Be*
10:10	(96) Exploring relationships between cancer screening uptake and deprivation using Geographically Weighted Regression *Alistair Geddes*	(2) Colouring London – A Crowdsourcing Platform for Geospatial Data Related to London's Building Stock *Polly Hudson, Adam Dennett, Tom Russell and Duncan Smith*	(66) Analysis of smart card data to understand the mobility patterns of concessionary bus users *Ffion Carney, Paul Longley and Jens Kandt*
10:30	(11) The usability of open source tools to measure access to health services; analysing mobile cancer unit locations *Richard Williams, Gary Higgs and Mitchel Langford*	(84) Medium Data Toolkit - A Case study on Smart Street Sensor Project *Balamurugan Soundararaj, James Cheshire and Paul Longley*	(71) Reproducible road safety research: an exploration of the shifting spatial and temporal distribution of car-pedestrian crashes *Robin Lovelace, Layik Hama and Roger Beecham*