

# Theories and models of urbanization

Par . Le 12 October 2017



The ambition of the meeting is to engage discussion about fundamental questions regarding urban

theories and modeling. Invited keynote speeches will be followed each by a roundtable of discussion. Related major results from the ERC will also be presented. The intention of the workshop is to summarize the state of knowledge and prepare an agenda for future research.

## Programme :

### Day 1 – Thursday October 12th

9 :30 – 11 :00 URBAN THEORIES AND COMPLEXITY (1)

Michael Batty “Which complexity for urban systems?”

Discussion:

Olivier Bouba-Olga “Innovation, In and Out

Juste Raimbault “Complexity, Complexities and Complex Knowledges”

11:30 – 13:00 BUILDING MODELS: EXPERIMENTATION OF THEORIES AND REPRODUCIBILITY

Romain Reuillon “Towards Computer Assisted Modeling”

Discussion:

Clémentine Cottineau, Juste Raimbault, Marion Le Texier, Florent Le Néchet & Romain Reuillon

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“Using OpenMole to explore the impact of initial spatial conditions on geosimulation models”

Roundtable about OpenMole with Paul Chapron, Guillaume Chérel, Clémentine Cottineau, Mathieu Leclaire, Sébastien Rey-Coyrehourcq

14:00 – 15:00 URBAN THEORIES AND COMPLEXITY (2)

Elsa Arcaute “Scaling laws, insights and limitations”

Discussion:

Horacio Samaniego “The Topology of Communicating across cities in increasing sizes, or the complex task of “Reaching Out” in Larger Cities”

Francisco Maturana & Horacio Samaniego “Urban scaling and deviations. Exploratory analysis based on functional elements and spatial planning of Chile”

16 :30 – 17 :30 URBAN THEORIES AND BIG DATA

Marc Barthelemy “Revisiting economics for understanding urban data”

Discussion by Arnaud Banos & Céline Rozenblat

17 :30 – 18 :30 ARE SCALING LAWS TRANSFERABLE TOWARDS URBAN THEORIES?

Olivier Finance & Elfie Swerts “Scaling laws in urban geography. Linkages with urban theories, challenges and limitations”

**Day 2 – Friday October 13th**

9 :30 – 10 :00 ECONOMY VERSUS GEOGRAPHY: THEORIES OF URBANIZATION AND CITIES DEVELOPMENT

Michael Storper “Urban systems: the geography of income and population”

Discussion:

Lena Sanders, Isabelle Thomas & Céline Vacchiani-Marcuzzo “Lions and butterflies facing geography of cities”

11 :30 – 13 :00 ECONOMY VERSUS GEOGRAPHY: THEORIES OF URBANIZATION AND CITIES DEVELOPMENT

Solène Baffi & Clémentine Cottineau “What is emerging? Understanding urbanisation dynamics in BRICS countries through a geographical approach, the case of Russia and South Africa”

WHICH THEORIES AND MODELS FROM AND FOR BIG DATA?

Thomas Louail “Denoising data with talk: augmented interviews to better understand spatial behavior”

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Robin Cura “Visual exploration and simulation of large and long data of urban growth”

14 :00 – 15 :30 URBAN THEORIES AND INTERNATIONAL COMPARISON

Fulong Wu “Urban theories and urbanization processes: is China specific?”

Discussion by Natacha Aveline & Elfie Swerts

15 :50 – 17 :30 INTERNATIONAL COMPARISONS: HARMONIZATION OF DATA, COMPARABILITY OF RESULTS, LEVEL OF UNIVERSALITY FOR THEORIES AND MODELS

Animation by Eric Denis & Denise Pumain

Questions to Elsa Arcaute, Michael Batty, Marc Barthelemy, Michael Storper & Fulong Wu

For further information : [www.geodiversity.parisgeo.cnrs.fr/blog/](http://www.geodiversity.parisgeo.cnrs.fr/blog/)

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### **Pour faire référence à cet article :**

“Theories and models of urbanization”, *EspacesTemps.net*, Publications, 12.10.2017  
<https://www.espacestemp.net/en/articles/theories-and-models-of-urbanization/>

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