

# **Complexity Science and Transportation Systems '15**

## **Satellite Meeting at the**

### **Lipari School on Complex Systems 2015**

**Lipari Island, July 12<sup>th</sup>-18<sup>th</sup> 2015**

**<http://lipari.cs.unict.it/LipariSchool/ComplexSystems/>.**

Following the events organized at the ECCS '11 in Vienna, ECCS '12 in Brussels, ECCS '13 in Barcelona and ECCS '14 in Lucca, we announce the Call for Papers for a half-day Satellite Meeting "Complexity Science and Transportation Systems" within the Lipari summer school on Complex Systems. The aim of this Satellite Meeting is to create a space for exchanging state-of-the-art results and ideas about (i) how different Complex Systems tools such as complex networks, percolation theory, self-organized criticality or agent based modeling can be used to understand the internal dynamics of transportation systems, (ii) how to model the relationships between different transportation modes, and (iii) how to improve efficiency and performance of such systems.

The intended audience of this Satellite Meeting is twofold. On one hand, it consists of researchers from the field of Complexity Science, which are expected to give insight on the application of complex system tools and concepts to transportation systems. On the other hand, researchers specialized in Transportation systems will be encouraged to attend in order to give their contribution and see how such systems can be investigated with methodologies which are not currently recognized as mainstream. The main success of the meeting will be to foster an interdisciplinary forum of discussion between the two research communities.

Differently from previous years, this satellite will be primarily devoted to young researchers and PhD students with the specific aim of raising interest in the Air Transportation research field amongst those who are just starting their research career and do not yet have a consolidated research track in other fields. This is why this year we are organizing the satellite within the Lipari School on Computational Complex Systems which is a well established summer school with a long tradition and it is entirely devoted to PhD students with different backgrounds and interested in Complex Systems. We strongly encourage those interested in the satellite to also attend the school: <http://lipari.cs.unict.it/LipariSchool/ComplexSystems/>.

The Satellite is expected to be half-day long, with 2 invited talks and 3-4 shorter oral contributions. There will also be an introductory tutorial on the application of complexity science to Air Traffic Management. More information can be found in the Satellite's website:

<http://www.complexworld.eu/upcoming-events/eccs-2015-cw-satellite-meeting/>

A non-exhaustive list of topics includes:

- Topological properties of transportation systems, and the relations between topology and efficiency / resilience / propagation of disturbances.
- Dynamics of and on transportation systems: from movements of persons and goods, up to diseases and information spreading mechanisms.
- Emerging behaviors and critical phase transitions in transportation systems.
- Applications of multi-layer and time-varying network representations, statistically validated networks and community detection algorithms.

## Call for Papers

Submission of contributed papers can be done by sending an extended abstract (max. 3 pages) to the organizers (see email addresses below). Standard LaTeX, PDF, or Microsoft Words formats are encouraged. Submissions will be evaluated and selected by the Program Committee members, based on the adherence with the theme of the satellite, originality and scientific soundness. Once the selection process is complete, the authors of the accepted abstracts will be notified by e-mail.

The deadline for abstract submission for oral contributions is **May 31<sup>th</sup>, 2015**. The notification of the acceptance is expected to be on 5<sup>th</sup> June, 2015.

The attendance to the satellite is completely free. Those who are also interested in attending the school, will have to pay the school fee as appropriate. Further information about accommodation and travel can be found in the school webpage.

If you need more information, please visit the following website:

<http://www.complexworld.eu/upcoming-events/eccs-2015-cw-satellite-meeting/>

or directly contact with the organizers of the Meeting:

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