

# MULTITUDE Final Conference

## Methods and tools for supporting the Use, calibration and validation of Traffic simulations models

(Cost Action TU0903 – [www.multitude-project.eu](http://www.multitude-project.eu))



4<sup>th</sup> to 6<sup>th</sup>  
of December  
2013  
Naples, Italy

“Congress Centre Federico II, via Partenope 36”

### The COST Action MULTITUDE

COST - European Cooperation in Science and Technology ([www.cost.eu](http://www.cost.eu)) is an intergovernmental framework aimed at facilitating the collaboration and networking of scientists and researchers at European level. COST funds pan-European, bottom-up networks of scientists and researchers across all science and technology fields. These networks, called 'COST Actions', promote international coordination of nationally-funded research. The COST Action TU0903 MULTITUDE ([www.multitude-project.eu](http://www.multitude-project.eu)) “Methods and tool for supporting the Use, caLibration and validaTion of Traffic simUlations moDEls” is a research project undertaken in Europe under the aegis of the COST organization.

Its focus is the issue of uncertainty in traffic simulation and its main objective “to develop, implement and promote the use of methods and procedures for supporting the users to apply available traffic simulation models correctly, effectively and repeatably.”

### Final conference

The objectives of the final conference are to disseminate the scientific outcomes of the Action and to foster the discussion and the scientific investigation on the topic of the management of the uncertainty in traffic simulation.

Its impacts on the transportation engineering practice and on the transportation decision making process will be debated, in particular, during the first day in a round table with eminent participants from the academia and both the consultant and the client worlds.

Three keynote speeches and a number of invited presentations will follow, covering many theoretical and practical aspects including calibration, validation, sensitivity analysis in traffic and pedestrian simulation, and traffic control.

### Organizing Committee

Constantinos Antoniou, NTUA  
Mark Brackstone, IOMI  
Vincenzo Punzo, UNINA/EC JRC



# CONFERENCE DRAFT PROGRAMME

## Wednesday 4<sup>th</sup>

- 14:00-14:30** **Welcome and Registration**
- 14:30-15:10** **Introduction** (Massimo Marrelli, UNINA, Rector, t.b.c.; Bruno Montella, UNINA, Head of DICEA)
- 14:40 Welcome speech (Vincenzo Torrieri, UNINA, High Technology District on Transport and Logistics, DATILO)
- 14:50 Introduction to COST (Thierry Goger, COST Office)
- 15:00 Introduction to the COST Action MULTITUDE (Vincenzo Punzo, UNINA/EC JRC)
- 15:10-16:30** **The Management of Uncertainty in the Transportation Engineering Practice** (Mark Brackstone, IOMI)
- 15:10 Consultant view (Tom Van Vuren, Divisional Director at Mott MacDonald)
- 15:30 Public Agency view (Vladimir Vorotovic, Traffic Modelling Specialist at Transport for London, t.b.c.)
- 15:50 Decision Maker view (Robert Bertini, Portland State University, Past Deputy Administrator at the US DOT RITA)
- 16:10 Decision Maker view (Ennio Cascetta, UNINA, Past Ministry of Transport of the Campania Region, Italy)
- 16:30** *Coffee break*
- 17:00-18:00** **Round table: The Management of Uncertainty in the Transport Decision Making** (Mark Brackstone, IOMI)
- Participants: Vassili Alexiadis (Cambridge Systematics), Robert Bertini (Portland State University), Ennio Cascetta (UNINA), Craig Drury (UK Highway Agency), Tom Van Vuren (Mott MacDonald), Vladimir Vorotovic (Transport for London) t.b.c.

## Thursday 5<sup>th</sup>

- 9:00-10:30** **MULTITUDE Topics and Results** (Vincenzo Punzo, UNINA/EC JRC)
- 9:00 Calibration and Validation Basic Principles (Jaume Barcelo, UPC)
- 9:30 Sensitivity Analysis of Model Outputs (Biagio Ciuffo, EC JRC)
- 10:00 Time dependent OD Demand Estimation (Constantinos Antoniou, NTUA)
- 10:30** *Coffee break*
- 11:00** **Keynote speech on traffic simulation and control** (Markos Papageorgiou, TUC)
- 11:45-13:00** **MULTITUDE Outputs** (Christine Buisson, IFSSTAR)
- 11:45 Traffic Data: Enhanced NGSIM, MoCoPo (Marcello Montanino, UNINA, and Christine Buisson, IFSSTAR)
- 12:00 Training Schools and STSMs (Winnie Daamen, TUDelft)
- 12:15 State of the Art on Traffic Simulation (Christine Buisson, IFSSTAR)
- 12:30 A Case for Guidelines (Peter Vortisch, KIT)
- 12:45 Open Discussion
- 13:00** *Lunch*
- 14:15** **Keynote speech on pedestrian simulation** (Serge P. Hoogendoorn, TUDelft)
- 15:00-16:30** **Calibration and Validation in Theory** (Peter Wagner, DLR)
- 15:00 Talk 1 (Matthew Karlaftis, NTUA)
- 15:30 Talk 2 (Hani Mahmassani, Northwestern University)
- 16:00 Talk 3 (Ben Heydecker, UCL)
- 16:30** *Coffee break*
- 17:00-18:30** **Calibration and Validation in Practice 1** (Constantinos Antoniou, NTUA)
- 17:00 Real World Challenges (Jordi Casas, TSS)
- 17:20 Real World Challenges (Axel Lehonard, PTV)
- 17:40 Real World Challenges (Malcom Calvert, SIAS)
- 18:00 Real World Challenges (Peter Wagner, DLR)
- 20:30** *Social Dinner*

## Friday 6<sup>th</sup>

- 9:00** **Keynote speech on sensitivity analysis** (Stefano Tarantola, EC JRC)
- 9:45-10:45** **Calibration and Validation in Practice 2** (Tomer Toledo, Technion)
- 9:45 Real World Challenges (Vassili Alexiadis, Cambridge Systematics)
- 10:15 Real World Challenges (Craig Drury, UK Highway Agency)
- 10:45** *Coffee break*
- 11:15-12:15** **Promising Results and Open Issues** (Peter Vortisch, KIT)
- 11:15 Talk 4 (Vincenzo Punzo, UNINA/EC JRC)
- 11:45 Talk 5 (R. Eddie Wilson, University of Bristol)
- 12:15-13:00** **The MULTITUDE heritage** (Jaume Barcelo, UPC)
- 12:15 Traffic Simulation Guidelines (Mark Brackstone, IOMI, Robert Bertini, Portland State University)
- 12:35 Beyond MULTITUDE (Constantinos Antoniou, NTUA, Vincenzo Punzo, UNINA/EC JRC)
- 13:00-13:30** **Round table: Merging the Views** (Mark Brackstone, IOMI, participants: t.b.c.)
- 13:30** *Lunch*
- SOCIAL PROGRAMME** *Historical Centre and Metro Art Stations Tour*

### Scientific Committee

- Constantinos Antoniou, NTUA
- Jaume Barcelo, UPC
- Mark Brackstone, IOMI
- Christine Buisson, IFSSTAR
- Biagio Ciuffo, EC JRC
- Serge P. Hoogendoorn, TUDelft
- Ronghui Liu, ITS Leeds
- Vincenzo Punzo, UNINA/EC JRC (Action Chairman)
- Tomer Toledo, Technion (Action Vice-Chairman)
- Peter Vortisch, KIT
- Peter Wagner, DLR

### Scientific & Administrative Secretariat

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  - Lucia Sparavigna, TEST scarl
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### Registration Fees: 130 €

The fee is due ONLY by participants NOT reimbursed by COST. It includes the social dinner, two lunches and the coffee breaks.

### Conference Hotels

Royal Continental, Santa Lucia

Toledo Metro Art Station

