



Transport modeling and control

Demand modelling and travel behavior
 Model calibration and simulation
 Dynamic network modeling
 Simulation and optimization of transportation systems
 Control and management of transportation systems
 Traffic flow modeling and short-term predictions
 Vehicle routing and route planning
 Human factors, Minds and Cognition
 Energy consumption and emission modeling

Transportation Planning and operation

Rail Operations and Management
 Public transport
 Multi-modal transportation and terminals
 Airport and air transport operations
 Port and maritime operations
 City logistics
 Land use and transport interactions

Innovative services

Mobility as a Service
 Smart cities and smart mobility
 Urban mobility innovations
 Shared mobility
 Data collection methods for passenger and freight

Innovative technologies

Interoperability and interconnection of transport systems
 Automated and intelligent Vehicles
 ITS and big data
 Traveler information systems
 Connected Freight Electromobility
 Applications of IoT to transportation

SCIENTIFIC COMMITTEE

Giulio E. CANTARELLA, Università degli Studi di Salerno
 Armando CARTENÌ, Università degli Studi di Napoli "Federico II"
 Antonio COMI, Università di Roma "Tor Vergata"
 Bruno DALLA CHIARA, Politecnico di Torino
 Angela DI FEBBRARO, Università di Genova
 Demetrio C. FESTA, Università della Calabria
 Massimiliano GASTALDI, Università degli Studi di Padova
 Livia MANNINI, Università degli Studi di Roma Tre
 Antonio MUSSO, Sapienza Università di Roma
 Marialisa NIGRO, Università degli Studi Roma Tre
 Antonio VITETTA, Università degli Studi "Mediterranea" di Reggio Calabria

LOCAL ORGANIZING COMMITTEE

Giulio E. CANTARELLA
 Stefano DE LUCA
 Roberta DI PACE
 Facundo STORANI
 Lucas CISTERNAS

TECHNICAL ORGANIZING COMMITTEE

Rossella DEL REGNO
 Orlando GIANNATTASIO



11TH SEPTEMBER - WEDNESDAY

13.00 - 14.15

REGISTRATION

14.15 - 15.00

WELCOME:

ANTONIO MUSSO – PRESIDENTE SIDT

STEFANO DE LUCA – COMITATO ORGANIZZATORE UNISA

MICHELE BRIGANTE – ORDINE INGEGNERI DI SALERNO

15.00 - 18.40

SIDT YOUNG RESEARCHERS

CHAIR: ROBERTA DI PACE

New features of the zombie driver software for the evaluation of traffic safety levels

Vincenzo Pasquale Giofré

A hybrid traffic flow model for the optimisation of urban networks

Facundo Storani

The combination of random utility models (CoRUM) for accommodating taste heterogeneity and flexible substitution pattern across alternatives

Fiore Tinessa

Dry ports and related environmental benefits: a case study in Italy

Angela Carboni, Federico Orsini

Advanced vehicles: challenges for transportation systems engineering

Orlando Giannattasio

A network design model for road freight transportation using eHighway system

Aleksandra Colovic

An urban multimodal transportation model for future electromobility scenarios

Marina Ferrara

An iterative quasi-dynamic estimator alternately adjusting generation profiles and distribution shares

Angela Romano

Modeling route choice behavior under the influence of travel time variability

Francesco Piras, Giovanni Tuveri

Optimizing charge and relocation operations in electric car-sharing systems

Leonardo Zamberlan

Geographical and Mobility Data to Infer Dynamic OD flows Based on Accessibility Measures

Filippo Carrese

17.00 - 17.30

Coffee break

18.40 - 20.30

Assemblea dei soci

Elezioni del Presidente e del Consiglio direttivo

21.00

Free dinner

12TH SEPTEMBER - THURSDAY

8.00 - 8.45

REGISTRATION

8.45 - 9.00

**WELCOME:
ANTONIO MUSSO – PRESIDENTE SIDT**

9.00 - 11.00

**PLENARY: CHALLENGES AND PERSPECTIVES IN TRANSPORTATION
ENGINEERING
CHAIR: GIULIO E. CANTARELLA**

Smart, sustainable and integrated transport: how to get there?
The European research and innovation system

Angela Di Febbraro

Technologies and services for mobility and transportation:
challenges and opportunities for research

Cino Bifulco, Bruno dalla Chiara

Research perspective on transportation planning and project
appraisal

Pierluigi Coppola

11.00 - 11.15

Coffee break

12TH SEPTEMBER - THURSDAY

11.15 - 13.15

INNOVATIVE METHODS AND APPLICATIONS FOR SUSTAINABLE PUBLIC
TRANSPORT
CHAIR: STEFANO GORI

Evaluating equity in public transport investments: the external benefits on property values

Mariano Gallo

Equity measures for the identification of public transport needs

Stefano Gori, Livia Mannini, Marco Petrelli

Intelligent agent and Markovian decision problems: some applications in intelligent transit systems

Agostino Nuzzolo

An analysis of operational transport integration in selected countries

Davide Shingo Usami, Martina Gregori, Luca Persia, Letizia Petrichella, Alessandra Raffone

The willingness to pay for autonomous vehicles in public transport services: a real case application in Naples, Italy

Armando Carteni

Integration between activity-based demand models and multimodal assignment: some empirical evidences

Ernesto Cipriani, Umberto Crisalli, Andrea Gemma, Livia Mannini

13.15 - 15.00

Light Lunch

12TH SEPTEMBER - THURSDAY

11.15 - 13.15

INNOVATIVE SOLUTIONS FOR SMART MOBILITY
CHAIR: NICOLA SACCO

Advanced vehicles in transportation systems engineering: a study of mixed flow networks for the near future

Orlando Giannattasio, Angela Di Febbraro, Giulio Erberto Cantarella

A traffic management system for smart road networks reserved for autonomous vehicles

Angela Di Febbraro, Davide Giglio, Federico Gallo, Nicola Sacco

Integrating tools for an effective testing of CAV technologies

Luigi Pariota, Angelo Coppola, Luca Di Costanzo, Claudio D'Aniello, Cino Bifulco

Optimization of container operations at inland intermodal terminals

Chiara Colombaroni, Gaetano Fusco, Natalia Isaenko

Modelling evacuation using a discrete-time dynamical system formulation of mesoscopic dynamic network loading

Massimo Di Gangi, David Watling, Rosa Di Salvo

Green light optimized speed advisory: a C-ITS to improve mobility and pollution

Angelo Coppola, Claudio D'Aniello, Luca Di Costanzo, Luigi Pariota

13.15 - 15.00

Light Lunch

12TH SEPTEMBER - THURSDAY

15.00 - 17.00

INNOVATIVE METHODS AND APPLICATIONS FOR SUSTAINABLE WEAK
USERS TRANSPORT
CHAIR: MICHELE OTTOMANELLI

Analyzing an urban bike network by comparing traditional counting methods with GPS traces from smartphone

Federico Rupi, Joerg Schweizer, Cristian Poliziani

Calibration of bicycle link-cost functions using GPS traces and stochastic optimization methods

Joerg Schweizer, Federico Rupi, Cristian Poliziani

An analysis of dynamic demand patterns in free-floating bike sharing schemes based on GPS traces

Cristian Poliziani, Federico Rupi, Joerg Schweizer

The optimal location of bike lanes and the introduction of bike sharing system to promote cycling mobility: the case study of the gozschool project

Gabriele D'Orso, Marco Migliore

A novel distributed system of e-vehicle charging stations based on pumps used as turbine

Gabriella Balacco, Mario Binetti, Leonardo Caggiani, Michele Ottomanelli

Agent-based simulation to modelling pedestrian behaviours

Carlo Liberto, Stefano Carrese, Marialisa Nigro, Cristiano Zarelli

17.00 - 17.15

Coffee break

12TH SEPTEMBER - THURSDAY

15.00 - 17.00

METHODS AND MODELS FOR GREENER AND SAFER TRANSPORTATION I
CHAIR: MARIA NADIA POSTORINO

A comparative analysis using ANOVA of effects on driving performance using mobile phone

Fancello Gianfranco, Adamu Marta, Serra Patrizia, Fadda Paolo

Impacts of disruptions on airport apron and airside operations: a methodological framework

Maria Nadia Postorino, Luca Mantecchini, Caterina Malandri, Filippo Paganelli

Study of road scenarios details in virtual driving simulation

Barbara Piga, Giandomenico Caruso, Alfonso Ferraioli, Lorenzo Mussone

A not-existing freight train for HSL: proposal for an interoperable distributed-power train and simulation of its operation

Alberto Gualco, Nicola Coviello, Bruno dalla Chiara

Planning and simulation of intermodal freight transport on international networks. hub & spoke system in euro-Mediterranean area

Domenico Gattuso, Gian Carla Cassone, Margherita Malara

A vehicle routing problem for LNG maritime distribution with draft limits

Gianfranco Fancello, Simona Mancini, Patrizia Serra

17.00 - 17.15

Coffee break

12TH SEPTEMBER - THURSDAY

17.15 - 19.35

METHODS AND MODELS FOR GREENER AND SAFER TRANSPORTATION
II
CHAIR: CRISTINA PRONELLO

Nudge theory for a rational decision-making process in transportation planning: an application for a new carpool service

Ennio Cascetta, Armando Carteni, Ilaria Henke

Accounting for attitudes and perceptions influencing users' willingness to purchase electric vehicles through an hybrid choice modelling approach based on analytic hierarchy process

Stefano de Luca, Roberta Di Pace, Francesca Bruno

A new route choice formulation able to accommodate target correlation structures with an implicit enumeration algorithm: the CoNL route choice model

Fiore Tinessa, Andrea Papola, Vittorio Marzano

Assessing travelers' risk perception: case study of an italian railway station

Pierluigi Coppola, Fulvio Silvestri

A quali-quantitative market segmentation based on citizens' perceptions towards road pricing

Valentina Rappazzo, Cristina Pronello

Users' benefits from modal transfer with discrete choice models: a state of the art survey

Paolo Delle Site

Advanced airport passenger information system

Stefano de Luca, Roberta Di Pace

20.30

Gala Dinner – MUSEO DIOCESANO

12TH SEPTEMBER - THURSDAY

17.15 - 19.35

TECHNOLOGIES AND METHODS FOR RAILWAY TRANSPORT
CHAIR: STEFANO RICCI

Requirement specifications for railway measuring and monitoring system

Marco Antognoli, Cristiano Marinacci, Stefano Ricci, Luca Rizzetto

Intelligent wheelsets for the trains of the future: the role of in-service wheel-rail force measurement

Flavio Velletrani, Riccardo Licciardello

On exploiting multimodal solutions for mitigating the impact of service disruptions on rail transport attractiveness

Alice Consilvio, Angela di Febraro, Nicola Sacco

Rail service rescheduling in the case of fleet unavailability: a metro system analysis with the adoption of energy-saving strategies

Marilisa Botte, Luca D'Acerno

Integrating yard, network and optimisation models towards real-time optimisation of rail freight yard operations

Riccardo Licciardello, Ronghui Liu, Paola Pellegrini, Miloš Zat'ko

Role of urban rail networks in shaping city dynamics: an insight into international experiences

Cristiana Piccioni, Antonio Musso

A capacity evaluation of a freight railway node based on a timetable-saturation approach. application to the Novara case study

Bianca Pascariu, Nicola Coviello

20.30

Gala Dinner – MUSEO DIOCESANO

13TH SEPTEMBER - FRIDAY

9.00 - 11.00

INNOVATIVE METHODS AND APPLICATIONS FOR SUSTAINABLE ROAD
TRANSPORT
CHAIR: ITALO MELONI

Passenger travel demand models: preliminary estimations with big data (FCD)

Antonello Croce, Giuseppe Musolino, Corrado Rindone, Antonino Vitetta

A robust methodology for od matrix estimation based on floating car data using revealed path shares for large scale network

Anna Mitra, Alessandro Attanasi, Lorenzo Meschini, Guido Gentile

Clustering o-d flows to improve the effectiveness of o-d matrix updating procedures

Ciro Buonocore, Vittorio Marzano, Andrea Papola, Fulvio Simonelli, Fiore Tinessa

Demand estimation for road traffic flow simulations using data fusion: a case study of an urban intersections system in Turin

Angela Carboni, Riccardo Ceccato, Andrea Chicco, Francesco Deflorio, Marco Diana

Applications and challenges of IoT in the field of transportation

Eleonora Sottile, Giovanni Tuveri, Italo Meloni

A panel data analysis of tour-based university students' travel behaviour

Eleonora Sottile, Giovanni Tuveri, Italo Meloni

11.00 - 11.15

Coffee break

13TH SEPTEMBER - FRIDAY

9.00 - 11.00

TECHNOLOGIES AND METHODS FOR SUSTAINABLE FREIGHT
TRANSPORT
CHAIR: AGOSTINO NUZZOLO

Towards a conceptual data model for freight transport services in a Laas logic

Roberto Carroccia, Andrea Campagna, Riccardo Licciardello, Luca Persia, Marco Borasio, Luigi Maritano, Alessandra Raffone

Monitoring operations at freight intermodal terminals: traffic detection by scanning on-board devices

Angela Carboni, Alberto Gallizia, Francesco Deflorio, Bruno dalla Chiara

How much truck platooning will be a game changer for freight mode choice policy-making? an empirical assessment on a real case study in Italy

Vittorio Marzano, Fulvio Simonelli, Fiore Tinessa, Chiara Fiori, Andrea Papola

Modelling and simulation of a new urban freight distribution system based on automatic van platooning and fixed split up locations

Marino Lupi, Antonio Pratelli, Alessandro Farina

Aggregate delivery tour modelling through AVM data: some experimental evidences

Agostino Nuzzolo, Antonio Comi, Antonio Polimeni

Uncertainty management of an energy consumption model for electric freight vehicles

Chiara Fiori, Marcello Montanino, Vittorio Marzano, Vincenzo Punzo

11.00 - 11.15

Coffee break

13TH SEPTEMBER - FRIDAY

11.15 - 13.15

METHODS AND MODELS FOR GREENER AND SAFER TRANSPORTATION

III

CHAIR: GAETANO FUSCO

Large - scale road safety evaluation using extreme value theory

Federico Orsini, Gregorio Gecchele, Massimiliano Gastaldi,
Riccardo Rossi

Data envelopment analysis for road safety analysis in urban
network: a comparative study using CCR and BBC models

Gianfranco Fancello, Michele Carta, Paolo Fadda

Calibration of volume-delay functions for steady-state road
traffic assignment: issues and an operational method for Qatar

Chiara Colombaroni, Gaetano Fusco, Natalia Isaenko

Vehicular traffic detection by drone-video for traffic monitoring
and management

Domenico Gattuso, Gian Carla Cassone, Margherita Malara

Coherence analysis of road safe speed and driving behaviour
from floating car data

Chiara Colombaroni, Gaetano Fusco, Natalia Isaenko

Algorithms for traffic signal settings based on floating car data
in a real-time on-field experimental scenario

Vittorio Astarita, Demetrio Carmine Festa, Vincenzo Pasquale
Giofr , Giuseppe Guido, Alessandro Vitale

13.15 - 15.15

Light Lunch

VENUE

[Ordine degli Ingegneri di Salerno](#)

Via Salvatore Marano, 15,
84123 Salerno SA



ACCOMODATION

[Grand Hotel](#)

Lungomare Clemente Tafuri, 1,
84127 Salerno SA
Tel . 089 704 1111

[Plaza](#)

Piazza Vittorio Veneto, 42,
84123 Salerno SA
Tel. 089 224477

[Hotel Montestella](#)

Corso Vittorio Emanuele, 156,
84122 Salerno SA
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[Ave Gratia Plena](#)

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