

PROGRAM AT A GLANCE

DTA
2025

Monday 15th

Salerno

Salone di Marmi, Palazzo di Città

18:00 - 20:00 Welcome aperitif and registration

Tuesday 16th

UNISA Campus

Piazza della Concordia, Salerno

08:00 Bus to UNISA Campus

Fondazione Universitaria

09:00 - 13:00 Morning sessions

13:00 - 15:00 Lunch break

14:30 - 15:00 Scientific Advisory Committee meeting

15:00 - 19:00 Afternoon sessions

19:00 - 19:30 Memorial tribute to Prof. Hani Mahmassani

19:30 Bus return to Salerno

Wednesday 17th

Paestum

Piazza della Concordia, Salerno

08:00 Bus to Grand Hotel Ariston Paestum

Grand Hotel Ariston

09:30 - 10:00 Breakfast

10:00 - 13:00 Morning sessions

13:00 - 15:00 Light Lunch

15:15 Bus to Paestum Archaeological Park

Paestum Archaeological Park

15:30 - 18:30 Archaeological Park visit and ice cream break

18:30 Bus to Grand Hotel Ariston

Grand Hotel Ariston

19:00 - 21:30 Dinner

21:30 Bus return to Salerno

Thursday 18th

Salerno

Salone di Marmi, Palazzo di Città

09:00 - 13:00 Morning sessions

13:00 - 15:00 Lunch break

15:00 - 19:00 Afternoon sessions

21:00 Gala Dinner and announcement of the next DTA Venue

Friday 19th

Salerno

Salone di Marmi, Palazzo di Città

09:00 - 12:00 Farewell breakfast and closing ceremony



Salone di Marmi, Palazzo di Città

Via Roma, 81
City of Salerno



BUS DEPARTURE POINT

Piazza della Concordia

City of Salerno



Fondazione Universitaria

Via delle Stelle
Campus UNISA
City of Fisciano



Grand Hotel Ariston

Via Laura, 13
City of Paestum



Paestum Archaeological Park

Via Magna Graecia, 919
Capaccio Paestum



SESSIONS AND CHAIRS

DTA
2025

Tuesday 16th

UNISA Campus

09:00-11:00

Traffic Flow Modelling and Control [I]

Gaetano Fusco - *Sapienza University of Rome*

11:20-13:00

Traffic Flow Modelling and Control [II]

Roberta Di Pace - *University of Salerno*

15:00-17:00

ITS and Traffic Forecasting [I]

Ernesto Cipriani - *Università Roma Tre*

17:20-19:00

ITS and Traffic Forecasting [II]

Jean-Patrick Lebacque - *University Gustave Eiffel*

Wednesday 17th

Paestum

10:00-11:30

Day-to-Day Dynamics [I]

David Watling - *University of Leeds*

11:30-13:00

Day-to-Day Dynamics [II]

Giulio Erberto Cantarella - *University of Salerno*

Thursday 18th

Salerno

09:00-11:00

Within-Day Dynamics [I]

Guido Gentile - *University of Rome La Sapienza*

11:20-13:00

Within-Day Dynamics [II]

Oskar A.L. Eikenbroek - *University of Twente*

15:00-17:00

Within-Day Dynamics [III]

Takamasa Iryo - *University of Tokyo*

17:20-19:00

Within-Day Dynamics [IV]

Mostafa Ameli - *University Gustave Eiffel*



Access the full abstract book online at
www.motusanimi.it/dta-abstracts/
or scan the QR code for quick access.



Scan the QR code to download the PDF
version of this program, or visit:
tr.ee/dta2025

The interactive PDF lets you tap on
underlined items for easy navigation.

MONDAY - Salerno

EVENING, 15th

📍 Salone di Marmi, Palazzo di Città

 18:00-20:00 | Registration and Welcome Aperitif

Look for the DTA Conference logo or the SIDT logo
to access the registration desk.



The building “Palazzo di Città” is located on Via Roma, with the registration desk and welcome aperitif on the second floor, accessible by elevator or via the main marble staircase in the interior courtyard.



Members of the organizing staff will be wearing
shirts with the conference logo and will be
available to assist you if needed.

NIGHT, 15th

Free time for participants to explore the city of Salerno at their
leisure

MORNING, 16th

📍 Piazza della Concordia, Salerno



08:00 | Join us at the meeting point for departure to the main campus of the University of Salerno.

📍 Fondazione Universitaria

09:00-11:00 **Traffic Flow Modelling and Control [I]**
Gaetano Fusco - Sapienza University of Rome

▶ **Dynamic Simulation Framework to Assess the impact of Variable Speed Limit Strategies**

Chiara Colombaroni (*University of Rome La Sapienza*), Gaetano Fusco (*University of Rome La Sapienza*), Natalia Isaenko (*University of Rome La Sapienza*), Filippo Carrese (*University of Rome La Sapienza*), Roberta Di Pace (*University of Salerno*), Stefano de Luca (*University of Salerno*), Facundo Storani (*University of Salerno*), Behnood Baiky (*University of Salerno*) and Saeed Mansouryar (*University of Rome La Sapienza*)

▶ **Online Application of Short-Term Traffic Prediction Integrating Simulation-Based Dynamic Traffic Assignment and Bayesian Filtering**

Andrea Gemma (*Università di Roma Tre*), Natalia Isaenko (*Sapienza University of Rome*), Ernesto Cipriani (*Università Roma Tre*), Chiara Colombaroni (*Sapienza University of Rome*) and Gaetano Fusco (*Sapienza University of Rome*)

▶ **Localized Queue Spillback Modeling for Dynamic Traffic Assignment with Uncertain Demand**

Jake Robbennolt (*University of Texas at Austin*), Debojjal Bagchi (*University of Texas at Austin*) and Stephen Boyles (*University of Texas at Austin*)

▶ **A performance-impact based strategy for multi-level speed harmonization in mixed traffic conditions**

Maria Nadia Postorino (*University of Bologna*), Luca Mantecchini (*University of Bologna*), Caterina Malandri (*University of Bologna*), Roberta Di Pace (*University of Salerno*) and Stefano de Luca (*University of Salerno*)

▶ **Optimizing Traffic Flow in Connected and Autonomous Vehicle Environments through Lane Drop Strategies.**

Mario Marinelli (*Polytechnic University of Bari*), Salvatore Viscio (*Polytechnic University of Bari*), Nadia Giuffrida (*Polytechnic University of Bari*), Mario Binetti (*Polytechnic University of Bari*), Roberta Di Pace (*University of Salerno*), Franco Filippi (*University of Salerno*) and Stefano de Luca (*University of Salerno*)

II 11:00-11:20 | **Coffe break**

📍 Fondazione Universitaria

11:20-13:00 **Traffic Flow Modelling and Control [II]**
Roberta Di Pace - *University of Salerno*

- ▶ **Quantifying Traffic State Vulnerability at Highway Bottleneck Networks Using Lyapunov Exponents**
Hye-young Tak (*Korea Advanced Institute of Science & Technology - KAIST*)
Hwasoo Yeo (*Korea Advanced Institute of Science & Technology - KAIST*)
- ▶ **Experimental study on characteristics of autonomous vehicles under different loads**
Shi-Teng Zheng (*Beijing Jiaotong University*), Jian Shang (*Beijing Jiaotong University*) and Rui Jiang (*Beijing Jiaotong University*)
- ▶ **An operational alternative to origin/destination matrices**
Gunnar Flötteröd (*Linköping University and Swedish National Road and Transport Research Institute*)
- ▶ **On the Control of Connected and Automated Vehicles as Moving Bottlenecks in Freeway Traffic**
Nikolas Sacchi (*University of Pavia*) and Antonella Ferrara (*University of Pavia*)
- ▶ **Transportation network risk analysis through stochastic link fundamental flow diagram**
Giulio Erberto Cantarella (*University of Salerno*), Orlando Giannattasio (*Politechnico di Bari*) and Antonino Vitetta (*University Mediterranea of Reggio Calabria*)

AFTERNOON, 16th

II 13:00-15:00 | **Lunch break**

14:30-15:00 | Scientific Advisory Committee meeting

▶ **Efficient Gradient-Based Calibrations with A Differentiable Dynamic Traffic Assignment (DTA) Simulation Model by Iterative Backpropagation (IB) And Auto-Differentiation**

Kejun Du (*The Hong Kong University of Science and Technology*), Qiru Ma (*The Hong Kong University of Science and Technology*), Enoch Lee (*The Hong Kong Polytechnic University*), and Hong Lo (*The Hong Kong University of Science and Technology*)

▶ **Coexistence of human drivers and CAVs - behavioral models and long-term properties**

Grzegorz Jamróz (*Jagiellonian University*), Gunnar Flötteröd (*Linköping University*), Rafał Kucharski (*Jagiellonian University*) and David Watling (*University of Leeds*)

▶ **Population Synthesis using Deep Generative Models for Agent-based Simulations**

Sangkuk Kim (*Korea University*) and Simon Oh (*Korea University*).

▶ **Intelligent Video Analytics for I2V communication: an experimental approach based on dynamic traffic assignment**

Marisdea Castiglione (*Università di Roma Tre*) and Marialisa Nigro (*Università Roma Tre*)

▶ **Agent-Based Simulation Considering Parking Search and Choice Behavior Using Bayesian Inference**

Prakash Ranjan (*University of Connecticut*), Fatemeh Fakhrmoosavi (*University of Connecticut*), Krishna M. Gurumurthy (*Argonne National Laboratory*), Abdelrahman Ismael (*Argonne National Laboratory*) and Nazmul A. Khan (*Argonne National Laboratory*)

▶ **Introducing the Flex-GLS Framework: Harnessing Crowd-Sourced Flexibility Data to Enhance Accuracy in Dynamic Origin-Destination Matrices Estimation**

Marisdea Castiglione (*Università di Roma Tre*), Guido Cantelmo (*Denmark Technical University*), Ernesto Cipriani (*Università di Roma Tre*) and Marialisa Nigro (*Università Roma Tre*)

17:00-17:20 | **Coffe break**

📍 Fondazione Universitaria

17:20-19:00 **ITS and Traffic Forecasting [II]**

Jean-Patrick Lebacque - *University Gustave Eiffel*

▶ **Dynamic traffic assignment in a trip-based multi-reservoir model**

Jean-Patrick Lebacque (*University Gustave Eiffel*) and Megan Khoshyaran (*Economics Traffic Clinic*)

▶ **A Projection-Based Dynamic System Optimum Emulated Using Macroscopic Fundamental Diagram Dynamics on Regional Networks**

Mostafa Ameli (*University Gustave Eiffel*), Sergio Batista (*Imperial College London*), Monica Menendez (*New York University Abu Dhabi*) and Jean Patrick Lebacque (*University Gustave Eiffel*)

▶ **Experiments concerning Macroscopic Fundamental Diagram-Based Multi-scale Modelling of Traffic Flow**

Alessio Tesone (*University of Naples "Federico II"*), Waheed Imran (*University of Naples "Federico II"*), Luigi Pariota (*University of Naples "Federico II"*), Gennaro Nicola Bifulco (*University of Naples "Federico II"*), Facundo Storani (*University of Salerno*), Roberta Di Pace (*University of Salerno*) and Stefano de Luca (*University of Salerno*)

▶ **Large Scale Traffic Control of a Mixed Network**

Franco Filippi (*University of Salerno*), Facundo Storani (*University of Salerno*), Roberta Di Pace (*University of Salerno*) and Stefano de Luca (*University of Salerno*)

EVENING, 16th

📍 Fondazione Universitaria

19:00-19:30 | Memorial tribute to Prof. **Hani Mahmassani**



19:30 | Bus return to Salerno

NIGHT, 16th

Free time for participants to explore the city of Salerno at their leisure

MORNING, 17th  Piazza della Concordia, Salerno 08:00 | Join us at the meeting point for departure to the Grand Hotel Ariston, in Paestum.  Grand Hotel Ariston 09:30-10:00 | Breakfast**10:00-11:20 Day-to-Day Dynamics [I]**David Watling - *University of Leeds***► Impact of Electric Vehicle Subsidies on a Mixed Urban Delivery Fleet**

Yongling Gao (*Central University of Finance and Economics*), Yuan Qiao (*Central University of Finance and Economics*) and Meng Xu (*Beijing Jiaotong University*)

► Optimizing Volunteer Assignment and Routing to Service Centers in Non-Profit Food Banking Under Equity Constraints

Hiruni Niwunhella (*North Carolina State University*), Mehr Salami (*North Carolina State University*), Leila Hajibabai (*North Carolina State University*) and Faisal Alkaabneh (*American University of Sharjah*)

► Sensitivity Analysis Through A Multi-objective Dynamic User Equilibrium Assignment Formulation

Sadullah Goncu (*Fatih Sultan Mehmet Vakif University*), Mehmet Ali Silgu (*Bartin University*) and Hilmi Berk Celikoglu (*Technical University of Istanbul*)

► Markov-chain-based model for the evolutionary process of self-financed shared mobility systems: Theoretical assessments

Takamasa Iryo (*University of Tokyo*), David Watling (*University of Leeds*), Koki Satsukawa (*Kanazawa University*), Richard Connors (*Luxembourg Institute of Science and Technology*), Haruko Nakao (*University of Luxembourg*) and Sowa Suzuki (*Tohoku University*)

 11:20-11:30 | Short break

📍 Grand Hotel Ariston

11:30-13:10 **Day-to-Day Dynamics [II]**
Giulio Erberto Cantarella - *University of Salerno*

► **Assessing the evolutionary process of self-financed shared mobility systems: A laboratory experimental approach**

Haruki Takiguchi, Sowa Suzuki (*Tohoku University*), Takamasa Iryo (*University of Tokyo*), Koki Satsukawa (*Kanazawa University*) and Haruko Nakao (*University of Luxembourg*)

► **Exploring multiple traffic assignment solutions resulting from economies of scale**

Gunnar Flötteröd (*Linköping University and Swedish National Road and Transport Research Institute*) and David Watling (*University of Leeds*)

► **Run choice modelling in High Speed Rail (HSR) services from day-to-day ticket evolution**

Giuseppe Musolino (*Università Mediterranea of Reggio Calabria*) and Domenico Sgro (*Università Mediterranea of Reggio Calabria*)

► **Equilibrium and Day-to-Day assignment with Weibit route choice model**

Giulio Erberto Cantarella (*University of Salerno*) and Chiara Fiori (*University of Salerno*)

► **A dynamic model for route choices updating in urban areas with risk conditions**

Francesco Russo (*University Mediterranea of Reggio Calabria*) and Marialuisa Moschella (*University Mediterranea of Reggio Calabria*)

AFTERNOON, 17th

📍 Grand Hotel Ariston

॥ 13:10-15:00 | **Lunch break**

🚌 15:15 | Departure to Paestum Archaeological Park

EVENING, 17th

📍 Paestum Archaeological Park

15:30-18:30 | Archaeological Park visit and ice cream break

The Archaeological Park of Paestum, a UNESCO World Heritage Site, is one of the most remarkable remnants of Magna Graecia in southern Italy.

Founded by Greek settlers in the 6th century BC, the site is renowned for its three exceptionally well-preserved Doric temples dedicated to Hera, Athena, and Neptune.

Visitors can also explore the ancient city walls, amphitheater, forum, and the adjacent museum, which houses exquisite frescoes and artifacts, including the famous Tomb of the Diver. Paestum offers a unique window into the fusion of Greek and Roman cultures in Campania.



For more information, you can visit the Park website:

<https://parchipaestumvelia.cultura.gov.it/en/>

Participants may conclude the visit with a *gelato*, including the option of an authentic variety crafted with the renowned buffalo milk of Cilento, a distinctive tradition of Campania Region.

🚌 18:30 | Return to Grand Hotel Ariston

NIGHT, 17th

📍 Grand Hotel Ariston

🍴 19:00-21:30 | **Social Dinner**

🚌 21:30 | Bus return to Salerno

MORNING, 18th Salone di Marmi, Palazzo di Città

09:00-11:00 **Within-Day Dynamics [I]**
Guido Gentile - *University of Rome La Sapienza*

► **Assessing the resilience of a road transport network: a dynamic approach**

Massimo Di Gangi (*University of Messina*), Orlando Marco Belcore (*University of Messina*) and Antonio Polimeni (*University of Messina*)

► **A Link-Time-Based Method for Semi-Discretized Dynamic Traffic Assignment**

Jiang Qian Ying (*Faculty of Regional Studies, Gifu University*)

► **Marginal Congestion Costs, Implications in a Dynamic Context**

Jeroen Verstraete (*KU Leuven*) and Chris Tamperc (*KU Leuven*)

► **Enhancing Operations through Integrated Heterogeneous Multi-depot Vehicle Scheduling and Transit Assignment**

Prateek Agarwal (*Indian Institute of Science*), Prashanth Kokkonda (*Indian Institute of Science*) and Tarun Rambha (*Indian Institute of Science*)

► **Accelerating convergence in Capacitated Schedule-Based Dynamic Transit Assignments**

Lory Michelle Bresciani Miristice (*University of Rome La Sapienza*), Guido Gentile (*University of Rome La Sapienza*), Daniele Tiddi (*PTV Group*) and Lorenzo Meschini (*PTV Group*)



11:00-11:20 | Coffe break

📍 Salone di Marmi, Palazzo di Città

11:20-13:00 **Within-Day Dynamics [II]**

Oskar A.L. Eikenbroek - *University of Twente*

► **Equilibrium Analysis and Fare-Reward Scheme for Transit Morning Commute Considering the Random Delay**

Zhaorui Li (*Beijing Jiaotong University*), Jianan Cao (*Beijing Transport Institute*), Xiao Han (*Beijing Jiaotong University*) and Rui Jiang (*Beijing Jiaotong University*)

► **Incentive-Driven Utility-based Self-Rebalancing for Ride-Hailing Service**

Jihu Kim (*Korea Advanced Institute of Science & Technology*), Jeongyun Kim (*Korea Advanced Institute of Science & Technology*) and Hwasoo Yeo (*Korea Advanced Institute of Science & Technology*)

► **Transit route design based on trip-based agglomeration of travel demand**

Praveen Kumar (*Indian Institute of Technology Kanpur*), Partha Chakroborty (*Indian Institute of Technology Kanpur*) and Hemant Gehlot (*Indian Institute of Technology Kanpur*)

► **A stochastic transit assignment with adaptive route choice**

Oskar A.L. Eikenbroek (*University of Twente*) and Eric Van Berkum (*University of Twente*)

► **A dynamic demand assignment in an underground transportation system for time-varying train loading calculation**

Lorenzo Mussone (*Politecnico di Milano ABC*) and Roberto Notari (*Politecnico di Milano MAT*)

AFTERNOON, 18th

📍 Salone di Marmi, Palazzo di Città

II 13:00-15:00 | **Lunch break**

📍 Salone di Marmi, Palazzo di Città

15:00-17:00 **Within-Day Dynamics [III]**

Takamasa Iryo - *University of Tokyo*

► **Deep Reinforcement Learning and Active Traffic Flow Control Policies for Extending the Life of Multi-Asset Transportation Roadway Networks**

Kostas Papakonstantinou (*Pennsylvania State University*), Mohammad Saifullah (*Pennsylvania State University*), Weiwen Zhou (*Hong Kong Polytechnic University*), Shelley Stoffels (*Pennsylvania State University*) and Elise Miller-Hooks (*George Mason University*)

► **Vulnerability assessment of High-speed Rail (HSR) networks: a schedule-based approach with a case study**

Pierluigi Coppola (*Politecnico di Milano*), Francesco Guglielmi (*Politecnico di Milano*) and Pietro Mariano (*Politecnico di Milano*)

► **Tradable Credit Scheme for Hybrid Traffic of Electric and Gasoline Vehicles under Elastic OD Demand**

Guangmin Wang (*China University of Geosciences*), Shiyi Liu (*China University of Geosciences*) and Meng Xu (*Beijing Jiaotong University*)

► **Congestion Management through Path Incentives and Tolls**

Ramin Niroumand (*Optym, North Carolina State University*), Amin Hajbabaie (*North Carolina State University*) and Ali Hajbabaie (*North Carolina State University*)

► **Pricing is All You Need to Improve Traffic Routing**

Yu Tang (*New York University*), Kaan Ozbay (*New York University*) and Li Jin (*Shanghai Jiao Tong University*)



17:00-17:20 | **Coffe break**

EVENING, 18th

📍 Salone di Marmi, Palazzo di Città

17:20-18:40 **Within-Day Dynamics [IV]**

Mostafa Ameli - University Gustave Eiffel

► **Optimizing the Placement of Dedicated Lanes for Autonomous Vehicles in Large-Scale Networks: A Simulation-based Framework**

Ehsan Kamjoo (*Michigan State University*), Alireza Rostami (*Michigan State University*), Fatemeh Fakhrmoosavi (*University of Connecticut*) and Ali Zockaie (*Michigan State University*)

► **The Dynamic Spatial Price Equilibrium Problem**

Terry Friesz (*Pennsylvania State University*) and Cheng-Chang Lin (*Pennsylvania State University*)

► **A Deep Learning Framework for User Equilibrium Estimation in Traffic Networks**

Van Anh Le (*Université Gustave Eiffel*), Mostafa Ameli (*Université Gustave Eiffel and University of California, Berkeley*) and Alexander Skabardonis (*University of California, Berkeley*)

► **New stable responsive local gating strategies to control vehicle queues and flows in congested urban networks**

Michael Smith (*University of York*), Ronghui Liu (*University of Leeds*), Takamasa Iryo (*University of Tokyo*), Koki Satsukawa (*Kanazawa University*), Richard Mounce (*RBM Traffic Solutions*) and David Watling (*University of Leeds*)

NIGHT, 18th

📍 Circolo Canottieri Irno, Salerno



21:00

| **Gala Dinner** with the announcement of the next DTA Venue

FRIDAY - Salerno

DTA
2025

MORNING, 19th

📍 Salone di Marmi, Palazzo di Città

09:00-12:00 | Farewell breakfast and closing ceremony



12:00

| End of the **DTA2025** - Salerno

DTA 2025

**10TH INTERNATIONAL SYMPOSIUM
ON DYNAMIC TRAFFIC ASSIGNMENT**

September 15th - 19th

SALERNO, ITALY



DTA 2025

10TH INTERNATIONAL SYMPOSIUM ON DYNAMIC TRAFFIC ASSIGNMENT

SCIENTIFIC ADVISORY COMMITTEE

Benjamin Heydecker

*University College
London*

Chris Tampère

*Katholieke Universiteit
Leuven*

David Watling

University of Leeds

Giulio Cantarella

University of Salerno

Hani S. Mahmassani

Northwestern University

Hong Lo

*Hong Kong University
of Science and Technology*

Iryo Takamasa

Kobe University

Mark Hickman

University of Queensland

Masao Kuwahara

Tohoku University

Michiel Bliemer

University of Sydney

Mike Smith

University of York

Satish Ukkusuri

Purdue University

Srinivas Peeta

Purdue University

Terry Friesz

*Pennsylvania State
University*

Wai Yuen Szeto

University of Hong Kong

Xuegang (Jeff) Ban

University of Washington

LOCAL ORGANIZING COMMITTEE

Giulio Cantarella

University of Salerno

Stefano de Luca

University of Salerno

Roberta Di Pace

University of Salerno

Chiara Fiori

University of Salerno

Italian Association of Transport Academics (SIDT)



ISTMoS

*Transportation Systems and Sustainable
Mobility Engineering Laboratory*

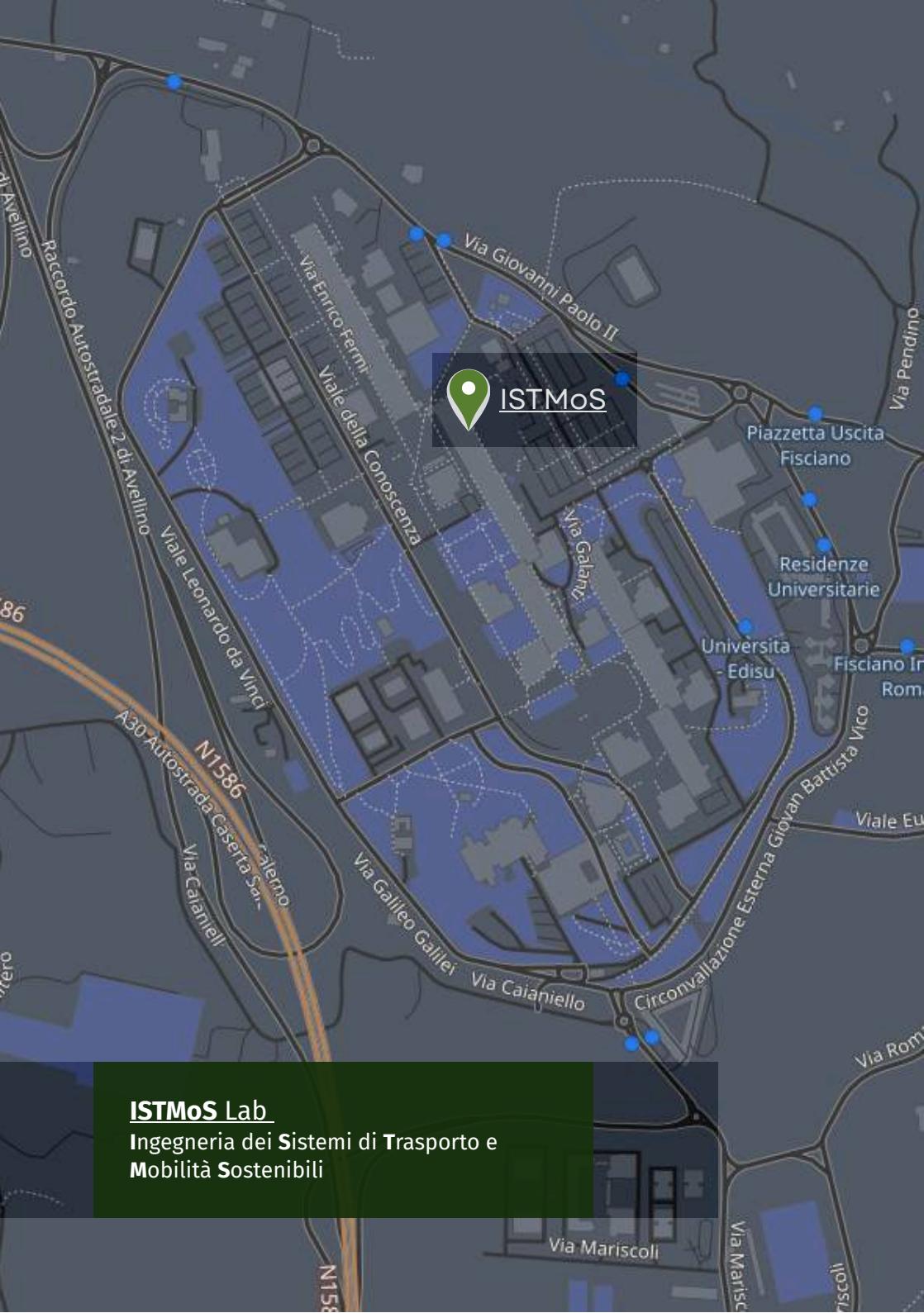


*Dipartimento di
Ingegneria Civile*



*UNIVERSITÀ DEGLI STUDI
DI SALERNO*





ISTMoS Lab

Ingegneria dei Sistemi di Trasporto e
Mobilità Sostenibili