Enrico Siri

PhD Student in Computer Science and Systems Engineering
DIBRIS Department, University of Genoa (Italy)

PERSONAL INFO

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Driving license: A2, B

- ★ IEEE Member
- ★ Associate editor IEEE Intelligent Transportation Systems Society Newsletter
- ★ Review Editor Urban Transportation Systems and Mobility Frontiers in Sustainable Cities
- ★ Professional Practice Exam (Industrial Engineering)

LANGUAGE SKILLS

ITALIAN: Mother Tongue
ENGLISH: reading, listening (C1)
speaking, writing (B2)

TECHNICAL SKILLS

Operative Systems:	
Linux (Fedora, Debian-based)	excellent
Windows	excellent
MacOS	excellent
Programming:	
MATLAB	excellent
Python	fair knowledge
Java	basic
HTML	basic
Software:	
AIMSUN	excellent
Microsoft Office	excellent
Knime	good knowledge
PowerBi	excellent
SPSS	basic
Conda	excellent

EDUCATION

2019-Present | PHD STUDENT IN COMPUTER SCIENCE AND SYSTEMS ENGINEERING

Department of Informatics, Bioengineering, Robotics and Systems Engineering (DIBRIS), University of Genoa, Genoa (Italy)

Research project topics: traffic assignment, network resilience, dynamic processes, bounded rationality, optimization.

Relevant courses attended:
- *Model Predictive Control, IMT Lucca, Alberto Bemporad*
- *Introduction to Convex Optimization, University of Genoa, Saverio Salzo and Silvia Villa*
- *MLCC: Machine Learning Crash Course, University of Genoa, Lorenzo Rosasco*
- *Model Predictive Control Course, University of Genoa, Mauro Gaggero*

2019 | Workshop on Autonomous Vehicles

IPAM UCLA, California (USA)

2018 | SHORT COURSE 2018: DYNAMIC TRAFFIC FLOW MODELLING AND CONTROL

Technical University of Crete, (Greece)
Instructor: Markos Papageorgiou

2016-2018 | MASTER'S DEGREE IN MANAGEMENT ENGINEERING

University of Genoa, Genoa (Italy)
Mark: 110/110 cum laude

February 2017 | CERTIFIED MARITIME & TRADE LOGISTICS

Escola Europea de Short Sea Shipping, Barcelona (Spain)
Course objectives:
- *Provide training in multimodal transport and logistics*
- *Provide a detailed and practical overview of port operations, ship and terminal infrastructure*
- *Provide an in-depth view of maritime logistics, its actors, roles and segmentations and market trends*

2011-2015 | BACHELOR'S DEGREE IN INDUSTRIAL ENGINEERING

University of Genoa, Genoa (Italy)
Mark: 107/110

PROJECTS

2022-present | SIMULATIVE ANALYSIS OF URBAN NETWORKS: APPLICATION TO SAVONA CITY CASE

Official project name: "Analisi simulativa di reti urbane: applicazione al caso della città di Savona"
Project Role: Traffic Data collection, network model setup and calibration for the Savona city urban network (AS-IS)

2020-2022 | EUROPEAN PROJECT SRSP

Official project name: "New Economic Regulation for Transport in case of Emergency Events"
Grant agreement: SRSS/S2019/063
Project Role: Contribution for the definition of macroscopic traffic models to be used for the assessment of the potential impact provoked by a disruptive event on a network.

2020-2021 | URBAN TRAFFIC MANAGEMENT PLAN FOR THE RAPALLO MUNICIPALITY AREA

Official project name: "Redazione del Piano Generale del Traffico Urbano (PGTU) di Rapallo"
Project Role: Simulation and analysis of alternative mobility scenarios.

2018-2020 | ANALYSIS OF MOBILITY SCENARIOS IN THE RAPALLO MUNICIPALITY AREA

Official project name: "Analisi e valutazione trasportistica di scenari di mobilità nell'area urbana del comune di Rapallo".
Project Role: Traffic Data collection, cleaning and processing. Software used: Knime, PowerBi. Setup and calibration of the urban network (AS-IS) within the AIMSUN traffic simulator.

PUBLICATIONS

- E. Siri, S. Siri, S. Sacone (2020). A progressive traffic assignment procedure on networks affected by disruptive events. In *Proc. Of European Control Conference, Saint Petersburg.*
- E. Siri, S. Siri, S. Sacone (2020). Network performance evaluation under disruptive events through a progressive traffic assignment model. In *Proc. Of IFAC World Congress, Berlin.*
- C. Pasquale, E. Siri, S. Sacone, S. Siri (2021). A Discrete-Time Model for Large-Scale Multi-Modal Transport Networks. 16^{th} *IFAC Symposium in Transportation Systems CTS 2021, Lille.*
- S. Bracco, G. Bianco, S. Siri, C. Barbagelata, C. Casati, E. Siri (2021). Simulation Models for the Evaluation of Energy Consumptions of Electric Buses in Different Urban Traffic Scenarios. *Sixteenth International Conference on Ecological Vehicles and Renewable Energies (EVER21), IEEE, Monaco.*
- C. Pasquale, E. Siri, S. Siri, S. Sacone (2021). A Dynamic Model for Multi-Modal Multi-Class Transport Network Affected by Disruptive Events. Submitted to *IEEE Transactions on Automation Science and Engineering.*
- E. Siri, S. Siri, S. Sacone (2021). A proportional switch-adjustment process for day-to-day traffic assignment with topological proximity dependent costs. Submitted to *Transportation Research Part C.*

TEACHING ACTIVITIES

2022 | PRINCIPLES OF INFORMATICS COURSE

University of Genoa, Bachelor's degree in Mechanical Engineering – Energy and Production
Course topics: principles of computer science and an introduction to programming
Official course name: Fondamenti di Informatica
Role: Professor (60 hours)

2021 | COMPLEX SYSTEMS ENGINEERING COURSE

Polytechnic University of Tirana, Computer Engineering and Electronic Engineering
Course topics: traffic modelling and control
Role: Laboratory assistant (4 hours)

2019-Present | THESIS CO-SUPERVISOR

- *Thesis Title: "Resilience of traffic networks: simulation and analysis of an urban network affected by a disruption".*
  Bachelor's Degree in Industrial Engineering, University of Genoa (Italy)
- *Thesis Title: "Simulation of electric buses in an urban environment: analysis of fuel consumption under various traffic scenarios"*
  Bachelor's Degree in Industrial Engineering, University of Genoa (Italy)

2019-2020 | FOR HIGHSCHOOLS – COMPETENCES AND LEARNING ENVIRONMENTS, NATIONAL OPERATIVE PROGRAM

Official project name: "Alla scoperta della tua impronta ambientale"
Funded by Programma Operativo Nazionale (PON), Per la scuola – competenze e ambienti per l'apprendimento.
Role: teacher (8 hours)

CONFERENCE ATTENDANCE

CONFERENCE SPEAKER

- International Conference on Optimization and Decision Science (ODS 2019), University of Genoa.
- IFAC European Control Conference (ECC 2020). Saint Petersburg, Russia.
- IFAC World Congress (IFAC 2020). Berlin, Germany.
- The 3rd Symposium on Management of Future and Urban Traffic Systems (MTFS 2020). University of Luxemburg, Luxemburg.
- 16th International Conference on Ecological Vehicles and Renewable Energies (EVER 2021). Monaco.
- 16th IFAC Symposium on Control in Transportation Systems (IFAC CTS' 2021). Lille, France.
- 29th Mediterranean Conference on Control and Automation (MED 2021). Bari, Italy.
- Automatica 2021. Catania, Italy.

CONFERENCE ATTENDANCE

- Workshop on Connected and Automated Vehicles for Energy Efficiency and the Environment (E3CAV 2019). IFP Energies Nouvelles, Rueil-Malmaison, Paris.
- Automatica 2019. Ancona, Italy.

REVIEWS

REVIEWER FOR INTERNATIONAL JOURNALS

- *IEEE Transactions on Intelligent Transportation Systems (T-ITS)*
- *IEEE Transactions on Intelligent Vehicles*

REVIEWER FOR INTERNATIONAL CONFERENCES

- *European Control Conference 2020 (ECC2020)*
- *21st IFAC World Congress 2020 (IFAC 2020)*
- *IEEE 23rd International Conference on Intelligent Transportation Systems 2020 (ITSC 2020)*
- *IFAC Control in Transportation Systems 2021 (IFAC CTS 2021)*
- *IEEE International Intelligent Transportation Systems Conference 2021 (ITSC 2021)*

OTHER ACTIVITIES

2021-Present | ASSOCIATE EDITOR IEEE INTELLIGENT TRANSPORTATION SYSTEMS SOCIETY NEWSLETTER