

EDUCATION

PhD in MATHEMATICAL MODELS FOR ENGINEERING SBAI Department - Sapienza Università di Roma	Rome, Italy 2017–Current
Master’s Degree in APPLIED MATHEMATICS 110 cum laude - Sapienza Università di Roma ◊ Thesis: “Epidemiologia della scarpie in popolazioni eterogenee”	Rome, Italy 2013–2016
Bachelor’s Degree in MATHEMATICS 107/110 - Sapienza Università di Roma ◊ Thesis: “Verifica di sistemi a stati infiniti”	Rome, Italy 2010–2013

WORK EXPERIENCE

Internship on vehicular and pedestrian traffic models Istituto per le Applicazioni del Calcolo - Consiglio Nazionale delle Ricerche	Rome, Italy Mar 2017–Sep 2017
Internship as analyst programmer Indra SPA	Rome, Italy Sep 2016–Feb 2017

VISITING

PhD visitor at MANNHEIM UNIVERSITY Supervisor: Prof. Dr. Simone Göttlich	Mannheim, Germany Mar 2019–Apr 2019
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PUBLICATIONS

Articles

- [1] C. Balzotti, M. D’Ovidio, P. Loreti, “*Fractional SIS epidemic models*”, *Fractal and Fractional*, 4(3), 44 (2020).
- [2] A. Alla, C. Balzotti, M. Briani, E. Cristiani, “*Understanding Mass Transfer Directions via Data-Driven Models with Application to Mobile Phone Data*”, *SIAM Journal on Applied Dynamical Systems*, 19(2), 1372–1391 (2020).

Proceedings

- [3] C. Balzotti, M. Briani, B. De Filippo, B. Piccoli, “*Towards a Comprehensive Model for the Impact of Traffic Patterns on Air Pollution*”, *Proceedings of the 6th International Conference on Vehicle Technology and Intelligent Transport Systems (VEHITS 2020)*, 1, 221–228 (2020).
- [4] C. Balzotti, M. Briani, A. Corbetta, E. Cristiani, M. Minozzi, R. Natalini, S. Suriano, F. Toschi, “*Forecasting visitors’ behaviour in crowded museums.*”, *Proceedings of the 9th Conference on Pedestrian and Evacuation Dynamics* (2018).
- [5] C. Balzotti, A. Bragagnini, M. Briani, E. Cristiani, “*Understanding Human Mobility Flows from Aggregated Mobile Phone Data*”, *IFAC-PapersOnLine*, 51(9), 25–30 (2018).

Book Chapters

- [6] C. Balzotti, E. Iacomini, “*Stop-and-go waves: A microscopic and a macroscopic description*”, to appear in *ICIAM 2019 Sema Simai Springer* (2020).

Preprints

- [7] C. Balzotti, S. Göttlich, “*A two-dimensional multi-class traffic flow model*”, arXiv preprint arXiv:2006.10131 (2020).
- [8] C. Balzotti, M. Briani, B. Piccoli, “*Estimate of emissions on road networks via Generic Second Order Models*”, arXiv preprint arXiv:2004.11202 (2020).
- [9] C. Balzotti, M. Briani, B. De Filippo, B. Piccoli, “*Evaluation of NO_x emissions and ozone production due to vehicular traffic via second-order models*”, arXiv preprint arXiv:1912.05956 (2019).

CONFERENCES AND WORKSHOPS

Poster presentation at VEHITS 2020, Prague, Czech Republic	May 2–4, 2020
Department Seminar at the Sapienza University, Rome, Italy	Feb 18, 2020
Contributed talk at XXI CONGRESSO UMI, Pavia, Italy	Sep 1–7, 2019
Contributed talk at ICIAM 2019, Valencia, Spain	Jul 15–19, 2019
Department Seminar at the Mannheim University, Mannheim, Germany	Mar 5, 2019
Contributed talk at SIMAI 2018, Rome, Italy	Jul 2–6, 2018
Contributed talk at GIORNATA DEI GIOVANI IAC 2018, Rome, Italy	Jun 11, 2018
Contributed talk at CTS 2018, Savona, Italy	Jun 6–8, 2018
School of OPTIMAL TRANSPORT: NUMERICAL METHODS AND APPLICATIONS, Como, Italy	May 7–11, 2018
INdAM Workshop: TRANSPORT MODELING AND MANAGEMENT, Rome, Italy	Mar 6–10, 2017

AWARDS

Best poster award at VEHITS 2020, Prague, Czech Republic	May 4, 2020
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COMPUTER SKILLS

Good knowledge: C, C++, Matlab, Python, L^AT_EX
Basic knowledge: mysql, Paraview

LANGUAGES

Italian: Mother tongue
English: Good knowledge

RESEARCH INTERESTS

Mathematical models for vehicular and pedestrian flow. Vehicular traffic and pollution. Numerical Analysis. Epidemiological models.