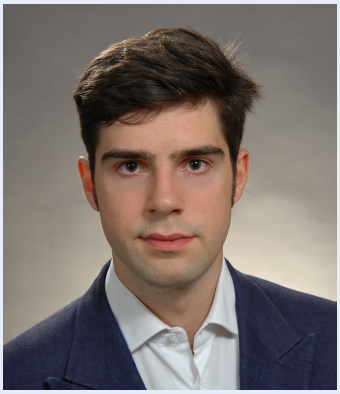
Mattia Cenedese



Born in Treviso, Italy, on March 15, 1992

Restelbergstrasse 56, 8044, Zürich

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Language Skills

Italian	Mother tongue
English	C1
German	A1

Education

M.Sc. in Mechanical Engineering

Politecnico di Milano & Politenico di Torino

09/14 - 12/17 Milan - Turin, Italy

- Final score: 110 *cum laude* / 110
- Minor: Mechatronics & Robotics
- Thesis: "Smart periodic structures: from wave propagation to electromechanical design
- Selected for the "Alta Scuola Politecnica" XI cycle, a multidisciplinary honour program reserved for the top students of the two polytechnic institutes
- Thesis title: "IntegraGreen: integration of additive manufacturing and conventional processes in view of green and sustainable development"

B.Sc. in Mechanical Engineering

Politecnico di Milano

09/11 - 04/14 Milan, Italy

- Final score: 110 *cum laude* / 110

Awards

- Awarded the € 5000 scholarship "Atlantia per la conoscenza" 2015-2016 sponsored by Atlantia S.p.A. after selection among the best engineering students of Politecnico di Milano.
- Merit award: full tuition waiver for the M.Sc.
- Merit award: half tuition waiver for the B.Sc.
- Article select for journal cover appearance

Professional Experience

Scientific Assistant - Ph.D. Student

ETH Zürich, D-MAVT

09/17 - Current Zürich, Switzerland

- Supervisor: Prof. Dr. George Haller, Chair in Nonlinear Dynamics, Institute for Mechanical Systems
- Research focus:
  - Construction of data-driven methods for reduced-order modeling of nonlinear dynamical systems capitalizing on machine learning algorithms
  - Development analytical techniques for the analysis of multi-degree-of-freedom, forced-damped, nonlinear mechanical systems.
- Key courses: Introduction to machine learning, Uncertainty quantification & data analysis in applied sciences, Nonlinear dynamics & chaos I-II, Numerical analysis of stochastic differential equations, Differential geometry
- Principal contributor of the Git repository SSMLearn (in development, upcoming release)
- Authorship of 4 journal papers and 7 conference proceedings
- Served as reviewer of research articles for the several technical journals
- Presented at 7 technical conferences
- Participated in 3 workshops & summer schools
- Teaching assistant for the courses "Dynamics" (undergraduate level, 2017) and "Nonlinear Dynamics & Chaos I" (graduate level,2020)
- Supervision of the M.Sc. Thesis "Model-order reduction for wakes behind bluff bodies" (2020), concluded with the highest mark
- Other academic references: Prof. Dr. Melih Eriten (UWM, USA), Prof. Dr. Matthew Brake (Rice University, USA), Prof. Dr. Francesco Bragin (Politecnico di Milano)

Research Scientist

Politecnico di Milano - Atlas Copco

05/17 - 08/17 Milan, Italy

- Participation in a joint development program between Atlas Copco & Politecnico di Milano to study the feasibility of a braking device based on piezoelectric technology

IT Skills

- Advanced knowledge of Matlab
- Experienced with Python in numerical and machine learning packages, e.g. NumPy, SciPy, Pandas, Matplotlib, FENICS, TensorFlow, PyTorch, Schikit-Learn
- Competent in Git, HTML and LaTeX
- Proficient with Microsoft Office

Extra-curricular

- Participation in Ernst & Young Business Game 2015, after selection among the best 200 Italian M.Sc. university teams
- Diploma in Music Theory and Solfeggio obtained in 2005
- Hobbies & Interests: Running, Driving, Skiing, Cooking, Traveling, Mountain Biking, Trekking