

MARIA CASTALDO

@ mariacastaldo5@gmail.com

+39-333-7342160

C.so Rosselli 100, 10129 Torino, Italia

Date of Birth: 06/04/1994

EDUCATION

Master's Degree in Mathematical Engineering

Politecnico di Torino

Sep. 2017 – Present

Torino, Italy

- **Main courses:** Dynamics over Networks, Graph Theory, Numerical Methods for PDE, Stochastic Processes, Optimisation and Statistical Inference, Statistical Models.
- **Thesis:** Perturbation of centrality over networks
- **Thesis Supervisor:** Prof. Fabio Fagnani
- **Thesis Abstract:** The study mainly concerns optimisation problems related to maximise the centrality of a node in a network and therefore its influence in the system. A family of weight matrix perturbation is considered, where perturbation stands for a modification of the number of out-links of a node, the direction of the out-links or the out-weights. Starting from rank 1 perturbations and specific graph structures the thesis aims to generalise as possible the results obtained on specific configurations.

Erasmus Scholarship

Kungliga Tekniska Högskolan

Aug. 2018 – Jan. 2019

Stockholm, Sweden

- **Main courses:** Applied Numerical Methods, Statistical Machine Learning, Risk Management, Artificial Neural Networks and Deep Architectures.

Bachelor's Degree in Mathematical Engineering

Politecnico di Torino

Sep. 2014 – Sep. 2017

Torino, Italy

- **Final grade:** 110/110 cum laude
- **Main courses:** Linear Algebra, Differential Equations, Numerical Methods, Calculus, Analysis, Probability, Statistics, Optimisation for Problem Solving, Computer Science, Databases.

TRAINING

Traineeship

Directorate General Statistics - European Central Bank

Mar. 2019 – Jun. 2019

Frankfurt, Germany

- **Division:** External Statistics and Sector Accounts.
- **Main Project:** development of an optimization tool in R to solve discrepancies caused by collecting data from different sources in financial accounts.

HONORS CLASSES

Summer School Alfaclass

Politecnico di Torino, Università di torino, Fondazione CRT

Sep. 2015

Torino, Italy

Summer School for best students with seminars and workshops on various mathematical topics within which algebraic geometry, Game Theory, Probability, Differential Equation and Dynamic Systems.

PROGRAMMING SKILLS

Matlab, R, C, C++, Python, Java ●●●●●●
SQL, OpenBUGS, SAS ●●●●●●

LANGUAGE SKILLS

Italian ●●●●●●
Mother tongue

English ●●●●●●

IELTS Certificate

3 December 2016

Overall Band Score: 7.5

Spanish ●●●●●●

DELE Certificate

1 August 2012

Level: B2

PERSONAL SKILLS

Team work skills

- Good teamwork skills gained from experiencing eclectic and international working and studying environments.

Leadership skills

- Good leadership skills gained from volunteering as a scout leader for five years and being responsible for a group of 30 children from 8 to 10 years old.
- Good organisational and managerial skills gained from being the legal responsible of a scout group of 30 educators and around 200 boys and girls for two years (2017/2018 and 2018/2019).