

# Giacomo Baggio

E-mail address: baggio.giacomo@gmail.com

Phone number: +39 347 8638168

Current address: Via Mazzini, 22 – Zanè (VI), Italy

Nationality: Italian

Homepage: [www.dei.unipd.it/~baggio](http://www.dei.unipd.it/~baggio)

Skype: giacomo.baggio

Current position: Ph.D. student at Univ. of Padova

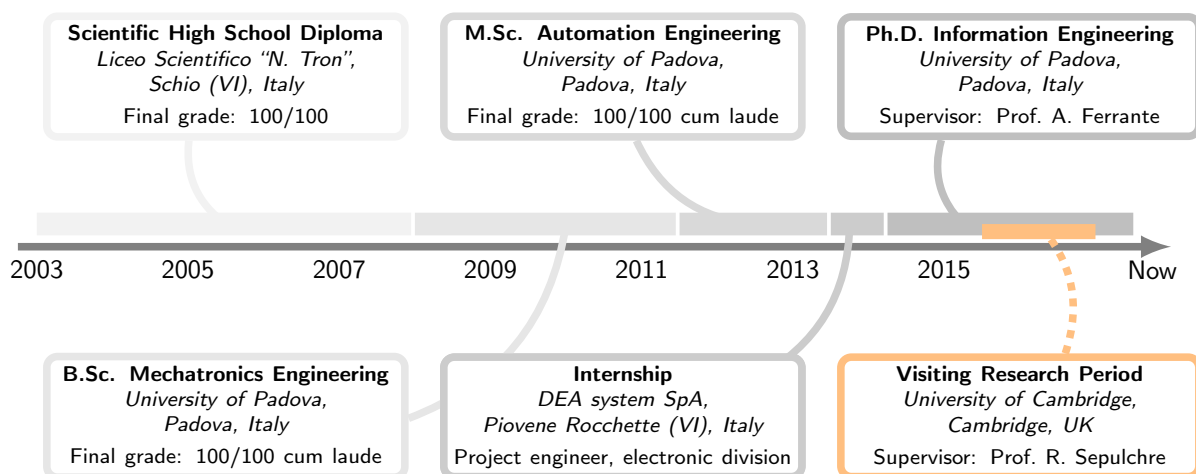
B.Sc. Engineering

M.Sc. Engineering

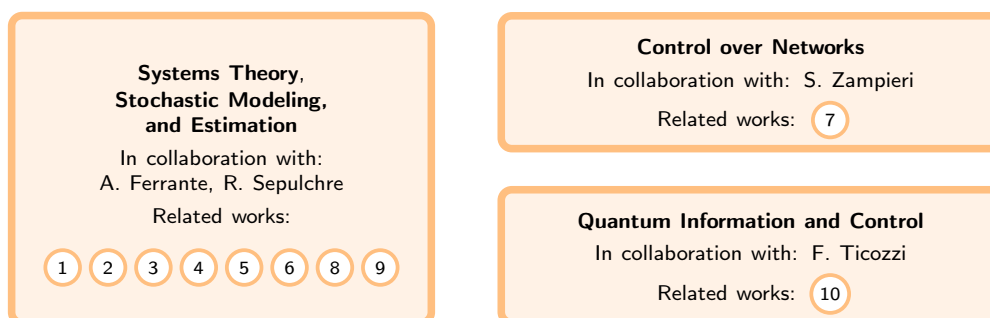
Ph.D. student



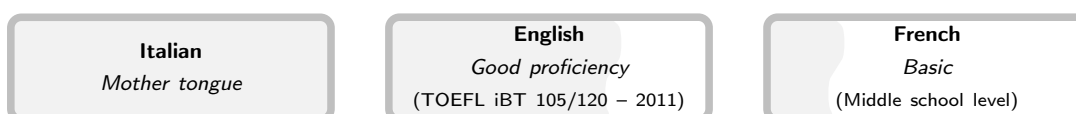
## Education & Professional Experience



## Research Interests



## Languages



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## Computer Skills

### Programming

›C ●●●  
›C++ ●  
›Python ●●  
›Java ●●

### Operative Systems

›Mac OSX ●●●●  
›Linux (Ubuntu) ●●●  
›Windows ●●

### Typesetting

›T<sub>E</sub>X/L<sub>A</sub>T<sub>E</sub>X ●●●●●  
›Tikz/PGF ●●●●  
›HTML/CSS ●

### Software

›Matlab/Simulink ●●●●  
›Mathematica ●●

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## Honors & Awards



**Giudizio di Eccezionalità di Tesi**, Department of Information Engineering, University of Padova, 2014, special mention for outstanding M. Sc. thesis.



**Premio di Studio “Fratelli Cesare e Dante Bolognesi”**, 2007, Comune di Schio (VI), scholarship awarded to the best high-school students.

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## Other Activities



**Reviewer** for Automatica, IEEE Transactions on Automatic Control, IEEE Transactions on Control of Network Systems, System & Control Letters, IEEE Control and Decision Conference, IEEE American Control Conference, IEEE European Control Conference, IFAC World Congress.



**Teaching Supervisor** for the M. Eng. course “3F1 – Signals and Systems” @ Department of Engineering, University of Cambridge (UK), and the M. Eng. course “Estimation and Filtering” @ Department of Information Engineering, Univ. of Padova.

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## Publications & Preprints

①

B. Zhu and G. Baggio. “On the Existence of a Solution to a Spectral Estimation Problem à la Byrnes–Georgiou–Lindquist”. (Submitted for publication), 2017.  
arXiv: <http://arxiv.org/abs/1709.09012>

②

G. Baggio, A. Ferrante, and R. Sepulchre. “Finslerian Metrics in the Cone of Spectral Densities”. (Submitted for publication), 2017.  
arXiv: <http://arxiv.org/abs/1708.02818>

③

G. Baggio. “Further Results on the Convergence of the Pavon–Ferrante Algorithm for Spectral Estimation”. *IEEE Transactions on Automatic Control*, to appear, 2018.  
arXiv: <http://arxiv.org/abs/1612.03570>

④

G. Baggio and R. Sepulchre. “Stochastic LTI Processes and Their Invariance Properties: A Behavioral Perspective”. Proceedings of IFAC World Congress, 2017.

⑤

G. Baggio. “On the Convergence of a Matricial Fixed-Point Iteration Connected with Spectral Estimation”. Proceedings of IFAC World Congress, 2017.

- 6 G. Baggio and A. Ferrante. "Parametrization of Minimal Spectral Factors of Discrete-Time Rational Spectral Densities". (Submitted for publication), 2017.  
arXiv: <http://arxiv.org/abs/1609.02711>
- 7 N. Bof, G. Baggio, and S. Zampieri. "On the Role of Network Centrality in the Controllability of Complex Networks". *IEEE Transactions on Control of Network Systems*. vol. 4, no. 3, pp. 643-653, Sept. 2017.  
Online: <http://ieeexplore.ieee.org/document/7447762>  
arXiv: <http://arxiv.org/abs/1509.04154>.
- 8 G. Baggio and A. Ferrante. "On Minimal Spectral Factors with Zeroes and Poles Lying on Prescribed Regions". *IEEE Transactions on Automatic Control*, vol. 61, no. 8, pp. 2251-2255, Aug. 2016.  
Online: <http://ieeexplore.ieee.org/document/7286755>  
arXiv: <http://arxiv.org/abs/1509.04154>.
- 9 G. Baggio and A. Ferrante. "On the Factorization of Rational Discrete-Time Spectral Densities." *IEEE Transactions on Automatic Control*, vol. 61, no. 4, pp. 969-981, April 2016.  
Online: <http://ieeexplore.ieee.org/document/7128353>  
arXiv: <http://arxiv.org/abs/1410.0765>.
- 10 G. Baggio, F. Ticozzi, and L. Viola. "Quantum State Preparation by Controlled Dissipation in Finite Time: From Classical to Quantum Controllers". *Decision and Control (CDC), 2012 IEEE 51st Annual Conference on*, pages 1072-1077, Dec 2012.  
Online: <http://ieeexplore.ieee.org/document/6426787>  
arXiv: <http://arxiv.org/abs/1209.5568>.