

Curriculum vitae et studiorum

Name Levaggi Laura
Faculty of Engineering
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Degrees

- Graduated cum laude in Mathematics at the University of Genoa. Graduation thesis on “Biorthogonal bases, wavelets and applications”, advisors Prof. Claudio Canuto and Prof. Anita Tabacco, Polytechnic University of Turin.
- PhD in Mathematics at the University of Genoa (coordinated with Polytechnic University of Turin and University of Turin). PhD thesis on “Variable structure control of evolution equations in Banach spaces”, advisor Prof. Tullio Zolezzi, University of Genoa.

Academic experience

After receiving my PhD in Mathematics at the University of Genoa (in partnership with the University of Turin and the Polytechnic University of Turin) I worked as a Postdoctoral Researcher at the Department of Mathematics of the University of Genoa and at the Technical University of Munich. Since October 2009 I have been working as Assistant Professor in Mathematical Analysis at the Free University of Bolzano.

Didactics

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| A.Y. 2011/2012 to present | Lecturer of the course “Mathematical Analysis 1” of the Bachelor in Industrial and Mechanical Engineering. Course topics: Calculus. |
| A.Y. 2018/2019 to present | Lecturer of part of the course “Geometry” of the Bachelor in Industrial and Mechanical Engineering. Course topics: Linear Algebra. |
| A.Y. 2009/2010 2010/2011 | Lecturer of the course “Mathematics 1” of the Bachelor in Logistics and Production Engineering. Course topics: Calculus and Linear Algebra. |

Research interests

- Game theory with applications to public economics
- Mathematical control theory
- Variable structure control and sliding mode control
- Robustness and insensitivity issues in control theory
- Systems with discontinuous right-hand side and discontinuous feedbacks

Selected scientific publications

L. Levaggi, R. Levaggi, "Competition in the provision of hospital care: Are mixed markets a valid alternative?", *Economic Modelling*, 127, 106472, 2023.

L. Levaggi, R. Levaggi, C. Marchiori, C. Trecroci, "Waste-to-Energy and recycling: The role of plant ownership and waste mobility", *Waste Management*, 141, pp. 35-51, 2022.

L. Levaggi, R. Levaggi, "Is there scope for mixed markets in the provision of hospital care?", *Social Science and Medicine*, 247, 112810, 2020.

L. Levaggi, R. Levaggi, C. Trecroci, "Decentralisation and waste flows: A welfare approach", *Journal of Environmental Management*, vol. 217, pp. 969-979, 2018.

L. Levaggi, R. Levaggi, "Rationing in health care provision: A welfare approach", *International Journal of Health Economics and Management*, vol. 17, nr. 2, pp. 235-249, 2017.

L. Levaggi, L. Pusillo, "Classes of multiobjective games possessing Pareto equilibria", *Operations Research Perspectives*, vol. 4, pp. 142-148, 2017.

L. Levaggi, "Existence of sliding motions for nonlinear evolution equations in Banach spaces", *Discrete and Continuous Dynamical Systems*, 2013, pp. 477-487.

B. Mazzorana, L. Levaggi, M. Keiler, and S. Fuchs, "Towards dynamics in flood risk assessment", *Natural Hazards and Earth System Sciences*, vol. 12, n. 11, 2012, pp. 3571-3587.

L. Levaggi, R. Levaggi, "Welfare properties of restrictions to health care based on cost effectiveness", *Health Economics*, vol. 20, n. 1, 2011, pp. 101-110.

L. Levaggi, S. Villa, "On the regularization of sliding modes", *SIAM Journal on Optimization*, vol. 18, n. 3, 2007, pp. 878-894.

L. Levaggi, E. Punta, "Analysis of a second-order sliding-mode algorithm in presence of input delays", *IEEE Transactions on Automatic Control*, vol. 51, n. 8, August 2006, pp. 1325-1332.

L. Levaggi, "Infinite dimensional systems sliding motions", *European Journal of Control*, Vol. 8, n. 6, 2002, pp. 508-516.

L. Levaggi, "Sliding modes in Banach spaces", *Differential and Integral Equations*, Vol. 15, n. 2, February 2002, pp. 167-189.

Language skills

- English: certification: Cambridge CAE.
- French: good reading, writing and verbal skills.
- German: certification: Goethe Institut level C1.