Lorenzo Testa

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PERSONAL INFORMATION

Date of birth	September 6, 1998
Address	5000 Forbes Avenue, Pittsburgh, PA 15213
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RESEARCH INTERESTS

High-dimensional statistics; optimal prediction theory; statistical stability; functional data and network analysis

CURRENT POSITIONS

Ph.D. in Statistics and Data Science

2023– Carnegie Mellon University, US

Ph.D. student in Statistics and Data Science · Department of Statistics and Data Science

2023– Sant'Anna School of Advanced Studies, Italy

Junior Research Affiliate · L'EMbeDS Department

EDUCATION

Sant'Anna School of Advanced Studies, Italy

Master Diploma in Economics
→ 2020–2023 · Master Diploma in Economics and Management · Final grade: *100/100 cum laude* (highest honors)

Diploma in Economics
→ 2017–2020 · Diploma in Economics and Management · Final grade: *100/100 cum laude* (highest honors)

University of Pisa, Italy

M.Sc. in Data Science
→ 2020–2022 · Master of Science in Data Science · Final grade: *110/110 cum laude* (highest honors)

B.Sc. in Economics
→ 2017–2020 · Bachelor's degree in Economics · Final grade: *110/110 cum laude* (highest honors) and special mention · Graduated one semester ahead of the standard term

High school Diploma
2012-2017 Liceo Scientifico Filippo Lussana, Italy

Final grade: *100/100*

RESEARCH & PUBLICATIONS

*: equal contribution; ⊠: correspondence

Published papers

1. ESPOSITO, C.*, GORTAN, M.*, TESTA, L.*⊠, CHIAROMONTE, F.⊠, FAGIOLO, G., MINA, A., ROSSETTI, G. · Venture capital investments through the lens of network and functional data analysis · Applied Network Science 7, 42 (2022)

2. BOSCHI, T., DI IORIO, J., TESTA, L., CREMONA, M. A.⊠, CHIAROMONTE, F.⊠ · Functional data analysis characterizes the shapes of the first COVID-19 epidemic wave in Italy · Scientific Reports 11, 17054 (2021)

Book chapters & Conference proceedings

3. ESPOSITO, C.*, GORTAN, M.*, TESTA, L.*⊠, CHIAROMONTE, F., FAGIOLO, G., MINA, A., ROSSETTI, G. · Can you always reap what you sow? Network and functional data analysis of venture capital investments in health-tech companies · Proceedings of the 10th International Conference on Complex Networks and Their Applications (2021)

4. Papa, S., Rosi, B., Testa, L.[✉], Vaselli, F., Rossetti, G. · Inequality in the menu: how a network of restaurants characterizes social disparities in Boston · Book of Abstracts of the 10th International Conference on Complex Networks and Their Applications (2021)

Preprints & Working papers

5. Boschi, T.*, Testa, L.*, Reimherr, M., Chiaromonte, F. · FAStEN: an efficient adaptive method for feature selection and estimation in high-dimensional functional regressions · Submitted (2023+)

6. Boschi, T.*, Di Iorio, J.*, Testa, L.*, Cremona, M. A.[✉], Chiaromonte, F.[✉] · Contrasting pre-vaccine COVID-19 waves in Italy through Functional Data Analysis · Submitted (2023+)

7. Gortan, M., Testa, L., Fagiolo, G.[✉], Lamperti, F.[✉] · A unified repository for pre-processed climate data weighted by regionally-based economic activity · Submitted (2023+)

FELLOWSHIPS & SCHOLARSHIPS

2017–2022   Sant'Anna School of Advanced Studies, Italy

Competitive honors program ($\approx$ 5% admission rate) · 5-year full government-funded scholarship (housing, canteen, travel grants), honor courses, yearly dissertations, language studies and GPA requirements

EXCHANGE PERIODS

Visiting periods

2021 · Visiting scholar · Department of Statistics, Eberly College of Science, The Pennsylvania State University, United States

2019 · Erasmus student · Department of Business and Economics, University of Galway, Ireland

2016 · Exchange student · Recognition of "*academic excellence*" · Urrbrae High School, Australia

Summer schools

2023 · *Climate Change and Machine Learning* · Climate Change AI

2021 · *Regularization Methods for Machine Learning* · University of Genova, Italy

2020 · *Economic Networks* · University of Oxford, United Kingdom

2019 · *Data Science* · Scuola Normale Superiore, Italy

TEACHING

Teaching assistant

2023 · *36-401: Modern regression* · Carnegie Mellon University

2023 · *Statistical learning and large data, module 2* (undergraduate level) · Sant'Anna School of Advanced Studies

2022 · *Statistics* (undergraduate level) · Department of Economics, University of Pisa

2022 · *Applied Statistics* (undergraduate level) · Sant'Anna School of Advanced Studies

2021 · *Macroeconomics* (undergraduate level) · Department of Economics, University of Pisa

WORK EXPERIENCE

Junior expert

2023 · Processing and analysis of household surveys, climate, and conflict data · Alliance Biodiversity – CIAT, CGIAR

Research assistant

2022–2023 · The Weighted Climate Data Repository · Sant'Anna School of Advanced Studies

Data analyst

2020–2021 · Analysis of COVID-19 chat bot textual data · Tuscany Regional Medical Service, USL Toscana Nord-Ovest, Italy

TALKS & POSTERS

Invited and contributed talks

December 2022 · FAStEN: efficient feature selection and estimation in functional regressions · IMS International Conference on Statistics and Data Science (ICSDS), Florence, Italy · Contributed talk and Poster

April 2022 · Trajectories towards success: characterizing venture capital investment networks · ICHEC Brussels Management School, Belgium · Invited talk

Other talks

March 2023 · Unveiling research patterns of institutions via networks and functional data: evidence from genome research · Sant'Anna School of Advanced Studies, Italy · Dissertation

November 2022 · Next Generation Functional Data Analysis · Rotary Club Fiesole, Italy · Informative presentation

July 2022 · Functional feature selection in function-on-function regression models · University of Pisa, Italy · Dissertation

December 2021 · An evolving science: network perspectives from genomics · Sant'Anna School of Advanced Studies, Italy · Dissertation

May 2019 · Fiscal expansion versus consolidation · Sant'Anna School of Advanced Studies, Italy · Dissertation

May 2018 · PageRank, explained · Sant'Anna School of Advanced Studies, Italy · Dissertation

OTHER INFORMATION

Programming languages

C · Julia · LaTeX · Python · R · SQL

Spoken languages

Italian (Native) · English (TOEFL score 108/120: CEFR C1) · Spanish (exp. B1) · French (exp. B1)

Editorial work

Journal referee for *Applied Network Science* · *Statistics in Medicine*

Memberships

American Statistical Association · Institute of Mathematical Statistics · Royal Statistical Society

Service

2020–2022 · Honors students' representative in the Board of the Social Sciences academic class · Sant'Anna School of Advanced Studies

2020–2021 · Member of honors students' financial statement Committee · Sant'Anna School of Advanced Studies

2018–2020 · Member of honors students' public relations Committee · Sant'Anna School of Advanced Studies