

DANIELE TANCINI

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EDUCATION

University of Perugia, Perugia.

Nov. 2022 - Present

Ph.D. student in Quantitative Methods for Economics, Science Sector: Statistics (STAT-01/A).

Research area: Bayesian inference, Computational Statistics.

Supervisor: Prof. Francesco Bartolucci.

Co-supervisor: Dott. Riccardo Rastelli.

University College Dublin, Dublin.

Nov. 2023 - May 2024

Visiting Ph.D. student, School of Mathematics and Statistics.

Research area: Bayesian inference, Computational Statistics.

Supervisor: Dott. Riccardo Rastelli.

University of Perugia, Perugia.

Sep. 2019 - Oct. 2021

Master's degree in Statistics and Actuarial Science (LM-83).

Thesis: *"Bayesian analysis of hidden Markov models: Comparison between Markov chain Monte Carlo algorithms"*.

Topic: Statistics.

Supervisor: Prof. Francesco Bartolucci.

Grade: 110/110L.

University of Perugia, Terni.

Sep. 2016 - Jul. 2019

Bachelor's degree in Economics (L-18).

Thesis: *"Quantitative analysis of stock and bond indexes"*.

Topic: Mathematical finance.

Supervisor: Prof. Flavio Angelini.

Grade: 110/110L.

WORK EXPERIENCE

University of Perugia.

Mar. 2025 - Jul. 2025

Teaching Assistant, Statistics (B.S.), supervised by Prof. Francesco Bartolucci.

Department of Economics, Perugia.

40 hours contract.

University of Perugia.

Mar. 2024 - Jul. 2024

Teaching Assistant, Statistics (B.S.), supervised by Prof. Francesco Bartolucci.

Department of Economics, Perugia.

40 hours contract.

University of Perugia. Teaching Assistant, Statistics (B.S.), supervised by Prof. Francesco Bartolucci. Department of Economics, Perugia. 40 hours contract.	Mar. 2023 - Jul. 2023
University of Perugia. Contract Professor, Preparatory course, Mathematics (B.S.). Department of Economics, Terni. 24 hours contract.	Sep. 2022 - Oct. 2022
Deloitte risk advisory srl. Market & Credit Risk analyst, Deloitte risk advisory, Milan. Analyst, Full-time contract.	Jan. 2022 - Feb. 2022
University of Perugia. Teaching Assistant, Mathematics (B.S.), supervised by Prof. Flavio Angelini. Department of Economics, Terni. 35 hours contract.	Sep. 2020 - Feb. 2021
University of Perugia. Teaching Assistant, Mathematics (B.S.), supervised by Prof. Flavio Angelini. Department of Economics, Terni. 35 hours contract.	Sep. 2019 - Feb. 2020

GRANTS AND SCHOLARSHIPS

- “*Student Award Institute of Mathematical Statistics ICSDS 2024*”, 2024;
- “*Borsa di Studio, Dottorato di ricerca ciclo XXXVIII*”, University of Perugia, 2022;
- “*Tiziano Conti*”, Onlus foundation “*L’albero delle farfalle*”, 2013.

PUBLICATIONS

Journal

- Tancini D., Bartolucci F. & Pandolfi S. (2024), *A comparison between marginal likelihood and data augmented MCMC algorithms for Gaussian hidden Markov models*, Journal of Statistical Computation and Simulation, <https://doi.org/10.1080/00949655.2023.2294098>;
- Tancini D., Scrucca L. & Bartolucci F. (2025), *An algorithm aiming at unimodal density-based clustering using Gaussian mixture models*, Statistics and Computing, <https://doi.org/10.1007/s11222-025-10659-x>.

Conference volume

- Tancini D., Bartolucci F. & Pandolfi S. (2024), *Bayesian hidden Markov models for early warning*, International Workshop on Statistical Modeling, https://doi.org/10.1007/978-3-031-65723-8_9;
- Tancini D., Rastelli R. & Bartolucci F. (2024), *Bayesian inference for discrete spatio-temporal hidden Markov models*, The 52nd Scientific Meeting of the Italian Statistical Society, https://doi.org/10.1007/978-3-031-64447-4_99;
- Tancini D., Rastelli R. & Bartolucci F. (2025), *Marginal Likelihood for Intractable Hidden Markov Models*, Statistics for Innovation IV, https://doi.org/10.1007/978-3-031-96033-8_65;

- Peruilh Bagolini R., Tancini D., Bartolucci F. & Pandolfi S. (2025), *A Data Augmented Bayesian Approach for Rectangular Hidden Markov Models*, Statistics for Innovation IV, https://doi.org/10.1007/978-3-031-96033-8_32.

SUPERVISIONS

- Co-supervision (Prof. F. Bartolucci supervisor) Giacomo Treppiedi, 2024, Master's degree in Statistics for Finance and Economics (LM-83), University of Perugia.

INVITED, CONTRIBUTED TALK and POSTER PRESENTATIONS

- “*Latent Variable Models: Methodological and Applicative Development for Lifestyle and Society*”, Workshop, Perugia, Italy, University of Perugia, 2024;
- “*52nd Scientific Meeting of the Italian Statistical Society*”, Conference, Bari, Italy, University of Bari, 2024;
- “*Working group on Model Based Clustering*”, Working group, Bertinoro, Italy, University of Bologna, 2024, **Poster presentation**;
- “*1st Workshop on Hidden Markov Models for Early Warning Systems*”, Workshop, Perugia, Italy, University of Perugia, 2024;
- “*WADE: Workshop Annuale del Dipartimento di Economia*”, Workshop, Perugia, Italy, University of Perugia, 2024;
- “*IMS International Conference on Statistics and Data Science 2024*”, Conference, Nice, France, 2024;
- “*Latent Variable Models: Methodological and Applicative Development for Lifestyle and Society*”, Workshop, Perugia, Italy, University of Perugia, 2025;
- “*DSSR 2025 Data Science & Social research*”, Conference, Pescara, Italy, University of Pescara, 2025, **Invited**;
- “*The 19th World Conference of the Spatial Econometrics Association*”, Conference, Rabat, Morocco, Mohammed V University, 2025;
- “*2025 SIS Conference: Statistics for Innovation*”, Conference, Genoa, Italy, University of Genoa, 2025;
- “*44th Conference on Stochastic Processes and their Applications*”, Conference, Wroclaw, Poland, University of Wroclaw, 2025, **Poster presentation**;
- “*2nd Workshop on Bayesian Inference organized by SISBayes Group*”, Workshop, Padova, Italy, University of Padova, 2025, **Poster presentation**;
- “*2nd Workshop on Hidden Markov Models for Early Warning Systems*”, Workshop, Perugia, Italy, University of Perugia, 2025.

REVIEW ACTIVITY

R Journal.

MEMBERSHIP

SIS; SISbayes, y-SIS, IMS.

SUMMER SCHOOL

“Replicability crisis in science?”, Summer school, University of Padova, Department of Statistics, 2023.

PERSONAL SKILLS

Mother tongue: Italian.

Other languages:

- English, professional working proficiency;
- Czech, limited working proficiency.

Programming:

- Advance knowledge of R;
- Discrete knowledge of MATLAB, SAS;
- Sufficient knowledge of Python.

Document markup:

- Advance knowledge of LaTeX;
- Discrete knowledge of Markdown.

*I hereby declare that all the information contained in this resume is in accordance with facts or truths to my knowledge. I take full responsibility for the correctness of the said information.

Sign

Daniele Tancini