

PERSONAL INFORMATION

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

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;

- Peruili 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