

SILVIA DALLARI

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CURRENT POSITION

11/2024 –PRESENT **Research Fellow**
Department of Statistical Sciences "Paolo Fortunati"
ALMA MATER STUDIORUM - Università di Bologna
Supervisor: Prof. Angela Montanari

EDUCATION

11/2021–04/2025 **PhD in Statistical Sciences, 37th cycle**
ALMA MATER STUDIORUM - Università di Bologna
Supervisor: Prof. Angela Montanari.
Co-Supervisors: Prof. Laura Anderlucchi, Prof. Marco Candela

2019 – 2021 **Two-year Master degree in Statistical Sciences,
Curriculum Data Science**
ALMA MATER STUDIORUM - Università di Bologna
Final grade: 110/110 cum Laude
Thesis: Analysis of missing data in latent vector autoregressive models.
Supervisor: Prof. Silvia Cagnone, Co-Supervisor: Prof. Silvia Bianconcini.

2016 – 2019 **Bachelor degree in Scienze Statistiche,
Curriculum Stats & Maths**
ALMA MATER STUDIORUM - Università di Bologna
Final grade: 110/110 cum Laude
Thesis: Customer satisfaction of Amazon Alexa®: text mining and sentiment analysis.
Supervisor: Prof. Marco Novelli.

2011 – 2016 **Scientific high school diploma**
Manfredo Fanti Scientific High School
Final grade: 100/100

VISITING PERIODS

09/2023–01/2024 Visiting PhD student at the Oslo Centre for Biostatistics and Epidemiology (OCBE), University of Oslo (Contact Person: Prof. Arnaldo Frigessi).

TEACHING

A.Y. 2025 – 2026 **Teaching Tutor** for the following courses:
Course: *Algebra e Modelli Lineari (C.I.) - Modelli Lineari (Prof. Angela Montanari)*
ALMA MATER STUDIORUM - Università di Bologna
Course: *Statistics and Probability (I.C.) - Statistics I (Prof. Angela Montanari)*
ALMA MATER STUDIORUM - Università di Bologna
Course: *Inference (Prof. Silvia Cagnone)*
ALMA MATER STUDIORUM - Università di Bologna
Course: *Statistical Inference and Modelling (Prof. Saverio Ranciati)*
ALMA MATER STUDIORUM - Università di Bologna

- A.Y. 2024 – 2025 **Adjunct professor** for the following course:
 Course: *Laboratorio di Analisi dei Dati (M-Z)*
 ALMA MATER STUDIORUM - Università di Bologna
- A.Y. 2024 – 2025 **Teaching Tutor** for the following courses:
 Course: *Algebra e Modelli Lineari (C.I.) - Modelli Lineari (Prof. Angela Montanari)*
 ALMA MATER STUDIORUM - Università di Bologna
- Course: *Statistics and Probability (I.C.) - Statistics I (Prof. Angela Montanari)*
 ALMA MATER STUDIORUM - Università di Bologna
- Course: *Multivariate Analysis (Prof. Angela Montanari)*
 ALMA MATER STUDIORUM - Università di Bologna
- Course: *Inference (Prof. Silvia Cagnone)*
 ALMA MATER STUDIORUM - Università di Bologna
- Course: *Statistical Inference and Modelling (Prof. Saverio Ranciati)*
 ALMA MATER STUDIORUM - Università di Bologna
- A.Y. 2023 – 2024 **Teaching Tutor** for the following courses:
 Course: *Multivariate Analysis (Prof. Angela Montanari)*
 ALMA MATER STUDIORUM - Università di Bologna
- Course: *Inference (Prof. Silvia Cagnone)*
 ALMA MATER STUDIORUM - Università di Bologna
- Course: *Statistical Inference and Modelling (Prof. Saverio Ranciati)*
 ALMA MATER STUDIORUM - Università di Bologna
- A.Y. 2022 – 2023 **Teaching Tutor** for the following courses:
 Course: *Inference (Prof. Silvia Cagnone)*
 ALMA MATER STUDIORUM - Università di Bologna
- Course: *Statistical Inference and Modelling (Prof. Angela Montanari, Prof. Saverio Ranciati)*
 ALMA MATER STUDIORUM - Università di Bologna
- Course: *Statistica e Calcolo delle Probabilità (C.I.) - Statistica (Prof. Cinzia Viroli)*
 ALMA MATER STUDIORUM - Università di Bologna
- A.Y. 2021 – 2022 **Teaching Tutor** for the following courses:
 Course: *Statistical Inference and Modelling (Prof. Angela Montanari, Prof. Saverio Ranciati)*
 ALMA MATER STUDIORUM - Università di Bologna
- Course: *Statistica e Calcolo delle Probabilità (C.I.) - Statistica (Prof. Cinzia Viroli)*
 ALMA MATER STUDIORUM - Università di Bologna

OTHER EXPERIENCES

- 09/2021 – 11/2021 **Project for the Department of Statistical Sciences "Paolo Fortunati":**
 Analysis of open answers of students' questionnaires using text-mining tools.
 ALMA MATER STUDIORUM - Università di Bologna
 Referent of the activity: Prof. Laura Anderlucci

- 01/2021 – 03/2021 **Research Assistant Internship (RAship) in Machine learning methods for the signal classification.**
 Creation of an algorithm capable of classifying the portions of signals acquired by tractors in different tasks.
 ALMA MATER STUDIORUM - Università di Bologna
 Referent of the activity: Prof. Cinzia Viroli
- 11/2018 – 04/2019 **Internship**
 MediNeos S.U.R.L., Modena
 Support on:
 • database validation
 • data quality control
 • quality control of statistical reports
 • SAS validation support

PUBLICATIONS

Silvia Dallari, Laura Anderlucchi, Angela Montanari. *High-Dimensional Gaussian Mixtures with Random Projection Based Covariance Estimates*. In: di Bella, E., Gioia, V., Lagazio, C., Zaccarin, S. (eds) *Statistics for Innovation III*. SIS 2025. Italian Statistical Society Series on Advances in Statistics. Springer, Cham, 2025, pp. 42-46.

Silvia Dallari, Nicola Grandi, Angela Montanari, *What are the main features of the Italian written by Italian University students?*, in: *Methodological and Applied Statistics and Demography II*, SIS 2024, Short Papers, Solicited Sessions, Springer Cham, 2025, pp. 129 - 133.

Francesco Barile, Silvia Dallari, Carlotta Pacifici, Bettina Grün, *Assessing neuron response to external stimuli with a data-driven procedure for spike train extraction and GAMLSS regressions*, in: *Advances in Neural Data Science*, «SPRINGER PROCEEDINGS IN MATHEMATICS & STATISTICS», 2025, pp. 35 - 55 (atti di: Data Research Camp 2022, Venice, Italy, July 12-15, 2022).

Laura Anderlucchi, Silvia Dallari, Angela Montanari, *View it differently: finding groups in microbiome data*, in: *CLADAG 2023 BOOK OF ABSTRACTS AND SHORT PAPERS*, Pearson Education Resources, Italia, 2023, pp. 34 - 37 (atti di: CLADAG 2023, Salerno, 11-13 Settembre 2023)

CONFERENCES

- 08-10/09/2025 S. Dallari, L. Anderlucchi and A. Montanari. "Clustering Microbiome Data Via Diversity-Based Mixture Models". CLADAG 2025. Napoli, Italy.
 [Invited session]
- 16-18/06/2025 S. Dallari, L. Anderlucchi and A. Montanari. "High-Dimensional Gaussian Mixtures with Random Projection Based Covariance Estimates". SIS 2025. Genova, Italy.
- 28-30/08/2024 S. Dallari, L. Anderlucchi and A. Montanari. "Model-based clustering of high dimensional data via Random Projections". MBC2 2024. Catania, Italy.
- 17-20/06/2024 S. Dallari, N. Grandi and A. Montanari. "What are the main features of the Italian written by Italian University students?". SIS 2024. Bari, Italy.
 [Invited session]
- 22-25/08/2023 S. Dallari, L. Anderlucchi and A. Montanari. "Finding groups in microbiome data according to multiple data-views". COMPSTAT 2023. London, UK.

POSTER PRESENTATIONS:

- 21-25/07/2025 S. Dallari, L. Anderlucchi and A. Montanari. "Random Projection based Mixtures of Poisson Log-Normal Distributions". Working Group on Model-Based Clustering. Antibes, France.

22-26/07/2024	S. Dallari, L. Anderlucci and A. Montanari. "Clustering Microbiome data via diversity-based mixtures". Working Group on Model-Based Clustering. Bertinoro, Italy.
13-15/06/2024	S. Dallari, L. Anderlucci and A. Montanari. "Clustering Microbiome data via Mixtures of Generalized Linear Latent Variable Models". National Forum on Medicine Precision. Palermo, Italy.
17-21/07/2023	S. Dallari, L. Anderlucci and A. Montanari. "Mixtures of generalized linear latent variable models for multivariate count data". Working Group on Model-Based Clustering. Pittsburgh, USA.

WORKSHOPS

17/09/2022	Participation in the hackathon <i>HackTheGene</i> Department of Statistical Sciences of the University of Padova Padova
12-15/07/2022	Participation in the <i>Data Research Camp 2022</i> Department of Statistical Sciences of the University of Padova San Servolo Island, Venice

TECHNICAL SKILLS

Programming Languages	R, Python, MATLAB
Statistical Softwares	STATA, SAS
Others	MySQL, LaTeX, Microsoft Office (ECDL certificate)

LANGUAGE SKILLS

Italian	mother tongue
English	B2 (IELTS Academic, 2020)

AWARDS AND GRANTS

- 2025 - Top Ten award given by the *Accademia delle Scienze di Bologna*.
- 2024 - Award for young female students in STEM given by FIDAPA.
- 2023 - Marco Polo programme mobility scholarship.
- Nov. 2021-Oct. 2024 - Ph.D. scholarship funded by the *Fondazione Carisbo*.
- 2021 - Study Award of the *Fondazione Cassa di Risparmio di Carpi* for the Master degree.
- a.y. 2020/2021 - Study Award in favor of deserving students of the University of Bologna.
- 2019 - Study Award of the *Fondazione Cassa di Risparmio di Carpi* for the Bachelor degree.
- a.y. 2016/2017 - Winner of the call for incentives for deserving students enrolled in degree programmes of particular national and community interest of the University of Bologna.
- 2016 - Study Award of the *Fondazione Cassa di Risparmio di Carpi* for the high school diploma.

I consent to the processing of my personal data pursuant to the GDPR and the Italian Legislative Decree of 30 June 2003, n. 196.