

SILVIA DALLARI

Carpi (MO), 27/03/1997

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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 Anderlucci, 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 **Adjunct professor** for the following course:
Course: *Statistics and Probability (I.C.) - Statistics I*
ALMA MATER STUDIORUM - Università di Bologna

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: *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

CO-SUPERVISED THESES

- 2025 **Master degree in Statistical Sciences:**
Identification of biomarkers of Hairy Cell Leukemia: A study on Extracellular Vesicles and clinical features

OTHER EXPERIENCES

- 05/2025 **"Allacciate le cinture" project:**
Conduction of a STEM, digital and innovation skills improvement program for high school students.

- 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 Anderlucci, 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 Anderlucci, 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. Anderlucci and A. Montanari. "Clustering Microbiome Data Via Diversity-Based Mixture Models". CLADAG 2025. Napoli, Italy.
[Invited session]
- 16-18/06/2025 S. Dallari, L. Anderlucci and A. Montanari. "High-Dimensional Gaussian Mixtures with Random Projection Based Covariance Estimates". SIS 2025. Genova, Italy.
- 28-30/08/2024 S. Dallari, L. Anderlucci 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. Anderlucci and A. Montanari. "Finding groups in microbiome data according to multiple data-views". COMPSTAT 2023. London, UK.

POSTER

PRESENTATIONS:

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| 21-25/07/2025 | S. Dallari, L. Anderlucci 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

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| 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 (Academic English Skills (AcES), 2024; 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.

AFFILIATIONS

- Società Italiana di Statistica
- Federazione Italiana Donne Arti Professioni Affari (FIDAPA) - Sezione di Bologna

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