

CLAUDIA COLLARIN

CONTACT INFORMATION	School of Mathematics University of Edinburgh James Clerk Maxwell Building, The King's Buildings, Peter Guthrie Tait Road, Edinburgh EH9 3FD	✉ claudia.collarin@ed.ac.uk 🌐 ccollarin 🌐 ccollarin.github.io
RESEARCH INTERESTS	Computational Statistics, Generalized Additive Models, Distributional Regression, Gradient Boosting, Energy Forecasting	
CURRENT POSITION	Postdoctoral Associate Researcher School of Mathematics, University of Edinburgh (from 03/2026 to present) Advisor: Simon Wood	
PAST POSITIONS	Postdoctoral Researcher Ca' Foscari University of Venice, Department of Environmental Sciences, Informatics and Statistics (from 01/2025 to 02/2026) Advisor: Ilaria Prosdocimi	
EDUCATION	University of Padova Ph.D. in Statistics , Department of Statistical Sciences (from 01/2022 to 12/2024, thesis defence 04/2025) <ul style="list-style-type: none">• Thesis topic: <i>Advances in Flexible Statistical Modeling: Feature Engineering, Model Selection and Survival Analysis</i> (available at research.unipd.it)• Advisors: Bruno Scarpa (University of Padova) and Matteo Fasiolo (University of Bristol) University of Trento M.Sc. in Mathematics , Department of Mathematics (from 10/2019 to 10/2021) <ul style="list-style-type: none">• Thesis topic: <i>Automatic Effect Selection for Generalized Additive Models</i> (available at webapps.unitn.it)• Advisors: Claudio Agostinelli (University of Trento) and Matteo Fasiolo (University of Bristol)• Final mark: 110/110 with honours B.Sc. in Mathematics , Department of Mathematics (from 10/2016 to 10/2019) <ul style="list-style-type: none">• Thesis topic: <i>Registrazione di dati funzionali: un metodo fondato sull'analisi delle componenti principali (Functional Data Registration via Principal Component Analysis)</i>• Advisors: Claudio Agostinelli (University of Trento)• Final mark: 110/110	
WORK EXPERIENCE	<ul style="list-style-type: none">• Advanced data analytics intern at Sorgenia spa, Milano (from 01/2023 to 12/2023, implementation of statistical software in python)• Data scientist intern at Bruno Kessler Foundation (FBK) DSIP (from 02/2021 to 06/2021, implementation of statistical software in python)	
VISITING PERIODS	University of Bristol, School of Mathematics, Bristol, UK (from 10/2022 to 12/2022 and from 05/2023 to 08/2023) Supervisor: Matteo Fasiolo	

AWARDS

Travel & academics awards

- Best Early-Career Presentation Award. 39th IWSM, Limerick, IRL (2025)

Data competitions

- Top five scoring teams in the EVA Data Challenge, 14th EVA, Chapel Hill, NC (06/2025)
- First prize winner at HackTheGene, Padova (09/2022)

PUBLICATIONS

Under revision or in preparation

Collarin, C., & Fasiolo, M. (2026+). *Creating semi-parametric AFT models via monotonic P-splines* [Working paper].

Collarin, C., Prosdocimi, I., Girardi, P., & Masiol, M. (2026+). *Semi-parametric analysis of air pollutant trends in the north-eastern Italian Alps* [Under review].

Girardi, P., **Collarin, C.**, Prosdocimi, I., & Masiol, M. (2026+). *A functional land use regression model for NO₂ concentration in the Italian Alpine region* [Under review].

Healy, D., Antoniano-Villalobos, I., **Collarin, Claudia**, Huet, N., Prosdocimi, I., & Siviero, E. (2026). *A lightweight framework for characterising extreme precipitation events in climate ensembles* [Under review]. <https://doi.org/10.48550/arXiv.2603.17502>

Collarin, Claudia, Fasiolo, M., Goude, Y., & Wood, S. (2025). Integrating complex covariate transformations in generalized additive models [Under review]. <https://doi.org/10.48550/arXiv.2511.19234>

Discussions and conference proceedings

Collarin, C., & Fasiolo, M. (2025). Gamfactory: An R package for integrating covariate transformations in GAMLSS. In D. O’Sullivan, J. Sweeney, S. Moghadam, & K. Burke (Eds.), *Proceedings of the 39th international workshop on statistical modelling* (pp. 307–311).

Collarin, C., & Fasiolo, M. (2024). Integrating single index effects in generalized additive models. In *Developments in statistical modelling. iwsm 2024* (pp. 116–120). Springer, Cham. https://doi.org/10.1007/978-3-031-65723-8_18

Collarin, C., & Fasiolo, M. (2023). Automatic effect selection for generalized additive models. *Proceedings of the 37th International Workshop on Statistical Modelling*, 400–404.

SERVICE TO PROFESSION

Membership to scientific societies:

- Statistical Modelling Society (SMS)
- Società Italiana di Statistica (SIS)

Organizer of *Explain like I’m an Undergrad* (from 01/2023 to 01/2024), series of weekly seminars for Ph.D. students, post-docs, and young researchers in the statistics department at University of Padova.

PRESENTATIONS **Invited presentations**

[Nov 2025] TRR 391 - TC02 Workshop: Spatio-temporal Statistics in High Dimensions, Dortmund, DE

[Sept 2025] GRASPA 2025 conference, Rome, IT

[Apr 2025] PhD²ays 2025, Department of Mathematics, University of Milan, IT

Contributed presentations

[Jul 2025] 39th International Workshop on Statistical Modelling, Limerick, IRL

[Jul 2024] 38th International Workshop on Statistical Modelling, Durham, UK

Poster presentations

[May 2025] Early-Career Workshop on Nonparametric Statistics, LUISS University, Rome, IT

[Jul 2023] 37th International Workshop on Statistical Modelling, Dortmund, DE

[Sept 2022] Statistical methods and models for complex data, Padova, IT

INVITED SEMINARS

Department of Environmental Sciences, Informatics and Statistics, Ca' Foscari University of Venice, (29/01/2025)

TEACHING

University of Padova

- Teaching assistant: Statistics 2 (B.Sc. course in Statistics) A.Y. 2025/2026; University of Padova
- Guest lecturer: "Introduction to Latex" (M.Sc.) - Feb. and Sept. 2024
- Teaching assistant: Mathematics and Statistics (B.Sc. in Biotechnologies) - A.Y. 2019/20; Univeristy of Trento

OTHER

Programming Languages

R (advanced), Latex (advanced), Python (intermediate), Matlab (basic), C++(basic), Java (basic).

Languages

Italian (native), English (fluent).

Author and/or maintainer of R packages

gamFactory (co-Author, [GitHub](#))