

Federica Stolf

CONTACT INFORMATION	Department of Statistical Science Duke University 214 Old Chemistry, Durham, NC 27708	✉: federica.stolf@duke.edu web: https://federicastolf.netlify.app
RESEARCH INTERESTS	Applied Bayesian Modeling, Factor models, Bayesian Nonparametrics, Latent Feature Models, Statistical Ecology.	
CURRENT POSITION	Postdoctoral Associate Duke University, Department of Statistical Science (from 10/2024 to present) Advisors: Amy Herring and David Dunson	
EDUCATION	Università degli Studi di Padova , Padova, Italy Ph.D. in Statistics , Department of Statistical Sciences (from 10/2021 to 09/2024, thesis defense 01/2025) <ul style="list-style-type: none">Thesis Topic: <i>Bayesian methods for complex dependence structures with application in ecology</i>Advisors: Antonio Canale and David Dunson M.Sc. in Statistical Sciences , Department of Statistical Sciences (from 10/2019 to 09/2021) <ul style="list-style-type: none">Thesis Topic: <i>Bayesian hierarchical models for spatial extreme values</i>Advisor: Antonio CanaleFinal mark: 110/110 with honors B.Sc. in Statistics for Technology and Sciences , Department of Statistical Sciences (from 10/2016 to 07/2019) <ul style="list-style-type: none">Thesis Topic: <i>Quantile regression for solar power forecasting</i>Advisor: Antonio CanaleFinal mark: 110/110 with honors	
WORK EXPERIENCE	<ul style="list-style-type: none">Research support activities (from 03/2021 to 05/2021) Department of Statistical Sciences, Università degli Studi di Padova Supervisor: Prof. Bruno ScarpaData scientist intern at Horsa, Vicenza (from 09/2019 to 12/2019)Ski instructor at Intersport Bernik, Kranjska Gora, Slovenia (from 12/2016 to 2/2020)	
VISITING PERIODS	Duke University, Department of Statistical Science, NC, USA (from 03/2023 to 09/2024) Supervisor: David Dunson.	
AWARDS	Travel & academics awards <ul style="list-style-type: none">ASA-SBSS Student Paper Competition (2025)Best poster award at ISBA 2024Young researcher travel award, ISBA 2024Young researcher financial support, 4th Italian Meeting on Probability and Mathematical Statistics (2024)Best poster award at Autumn school in Bayesian Statistics 2023, CIRM (France)Young researcher travel award, ISBA 2022Mille e una Lode Award 2018/2019, scholarship awarded to the best 2% students of the University of Padova Data competitions <ul style="list-style-type: none">First prize winner at HackTheGene, Padova (09/2022)	

PUBLICATIONS	Submitted and working papers
	<ul style="list-style-type: none"> • Anceschi N., Stolf F., Tikhonov G., Ovaskainen O. and Dunson D. (2024+). Enhanced borrowing for modeling rare species occurrences via tree-structured factor models. Working paper • Stolf, F. and Canale, A. (2024+). Bayesian Adaptive Tucker Decompositions for Tensor Factorization. Submitted, <i>arXiv:2411.10218</i> • Stolf, F. and Dunson, D. (2024+). Infinite joint species distribution models. Submitted, <i>arXiv:2402.13384</i>
	Articles in peer-reviewed journals and conference proceedings
	<ul style="list-style-type: none"> • Canale, A., Schiavon, L. and Stolf, F. (2024). Invited discussion to “Sparse Bayesian factor analysis when the number of factors is unknown”. <i>Bayesian Analysis</i>, in press • Stolf, F. and Canale, A. (2023). A hierarchical Bayesian non-asymptotic extreme value model for spatial data. <i>Environmetrics</i>, 34(7), e2806 • Stolf, F. and Canale, A. (2022). Bayesian spatial modeling of extreme precipitation, in <i>Proceedings of the 36th International Workshop on Statistical Modelling</i>. ISBN: 9788855113090
SERVICE TO PROFESSION	Referee for Computational Statistics & Data Analysis
	Membership to scientific societies: <ul style="list-style-type: none"> • International Society for Bayesian Analysis (ISBA), BNP ISBA and jISBA • Società Italiana di Statistica (SIS) Organizer of <i>Explain like I'm an Undergrad</i> (from 09/2023 to 07/2024) Series of weekly seminars for PhD students, post-docs, and young researchers in the statistics department at the University of Padova
PRESENTATIONS	Invited presentations
	[Dec 2024] CMStats Computational and Methodological Statistics, London, UK [Jun 2024] 4th Italian Meeting on Probability and Mathematical Statistics, Rome, Italy
	Contributed presentations
	[Jun 2024] 52th Scientific meeting of the Italian Statistical Society, Bari, Italy [Nov 2023] BAYSM 2023, online
	Poster presentations
	[Jul 2024] ISBA world meeting 2024, Venice, Italy [Jun 2024] BAYSM 2024, Venice, Italy [Oct 2023] Autumn school in Bayesian Statistics 2023, CIRM, Marseille, France [Jul 2022] 36th International Workshop on Statistical Modelling (IWSM), Trieste, Italy [Jun 2022] ISBA world meeting 2022, Montreal, Canada
TEACHING	Università degli Studi di Padova , Padova, Italy <ul style="list-style-type: none"> • Teaching assistant for Advanced statistical inference (M.Sc.) - A.Y. 2020/21 • Teaching assistant for Introduction to real analysis (B.Sc.) - A.Y. 2019/20, 2020/21
WORKSHOPS	Selected participant at Data Research Camp , Florence (Italy), 07/2024 Four-day meeting where groups of young scholars, advised by a senior researcher, were asked to develop innovative methods and models to analyze a common dataset.