Margarita Grushanina

m.grushanina@imperial.ac.uk   margarita.grushanina@gmail.com
https://margotgrush.github.io/
http://linkedin.com/in/margotgrushanina

Employment History

2024 – present — **Research Associate for Bayesian Statistics and Causal Inference**, Imperial College London, School of Public Health (London, United Kingdom).

2014 – 2024 — **Economist/Quantitative Analyst**, Erste Group Bank AG, Research Department (Vienna, Austria).

2011 – 2013 — **Bank Analyst**, Erste Group Bank AG, International Business Department (Vienna, Austria).

2007 – 2011 — **Data Analyst**, Erste Group Bank AG, Strategic Risk Management Department (Vienna, Austria).

2006 — **Researcher**, United Nations Industrial Development Organisation (UNIDO), Strategic Research and Economics Branch (Vienna, Austria).

2005 — **Intern**, United Nations Industrial Development Organisation (UNIDO), Strategic Research and Economics Branch (Vienna, Austria).

2004 – 2005 — **Lecturer**, Saint Petersburg State University, Department of Economics (Saint Petersburg, Russia).

Education

2018 – 2023 — **Doctoral programme**, Vienna University of Economics and Business. Institute of Quantitative Economics, Institute of Mathematics and Statistics (Vienna, Austria).
Advisors: Sylvia Frühwirth-Schnatter and Alfred Stiassny
Dissertation: *Bayesian Methods for Unsupervised Data Analysis in Application to Data Sets Exhibiting Non-Gaussianity*.

2001 – 2004 — **Candidate of Science (equivalent to PhD)** in Mathematical Methods in Economics, Saint Petersburg State University (Saint Petersburg, Russia).
Advisor: Galina Chernova

1996 – 2001 — **Diploma studies** in Mathematical Methods in Economics, Saint Petersburg State University (Saint Petersburg, Russia). Grade: with honors.
Advisor: Andrey Kudryavtsev

Schools and Trainings

Jun 2023 — **Workshop "Causal Inference: Concepts, Tools and Practice"**, Vienna University of Economics and Business (Vienna, Austria).
Instructors: Susanne Strohmaier, Michael Kammer (Medical University of Vienna)

Nov 2021 — **Tutor-Led Hybrid Training Course "Machine Learning Training for Industry"**, Mind Project and Newton Gateway to Mathematics, University of Cambridge (Cambridge, UK).
Instructor: Simon Walkowiak (UCL and Mind Project)

Schools and Trainings (continued)

Aug 2018 — **Summer School "Uncertainty Quantification for PDEs: Numerical Analysis and Scientific Computing"**, ETH Zürich (Zürich, Switzerland).
Instructors: A. Barth (Uni Stuttgart), A. Cohen, G. Migliorati (Sorbonne), H. Harbrecht (Uni Basel), C. Jerez-Hanckes (PUC Santiago), S. Mishra (ETH Zürich), C. Schwab (ETH Zürich), B. Sudret (ETH Zürich).

Jul 2018 — **Summer School "Machine Learning Methods and Data Analytics in Risk and Insurance**, Vienna University of Technology (Vienna, Austria).
Instructors: Gareth Peters (Heriot-Watt University), Pavel Shevchenko (Macquarie University).

Publications

Publications and preprints

1. Grushanina, M., & Frühwirth-Schnatter, S. (2025). Dynamic Mixture of Finite Mixtures of Factor Analysers. *Bayesian Analysis. Advance publication*, 1–30. doi:`10.1214/25-BA1543`
2. Grushanina, M. (2023). A Review of Bayesian Methods for Infinite Factorisations. arXiv: `2309.12990`

Conference Proceedings

1. Grushanina, M., & Frühwirth-Schnatter, S. (2021). Bayesian infinite factor models with non-Gaussian factors. In *JSM Proceedings, International Society for Bayesian Analysis (ISBA) Section* (pp. 396–415). Alexandria, VA: American Statistical Association.

Discussions

1. Grushanina, M. (2025). Discussion on Sparse Bayesian Factor Analysis When the Number of Factors Is Unknown by S. Frühwirth-Schnatter, D. Hosszejni, and H. F. Lopes., *20(1)*, pp. 316–318. doi:`10.1214/24-BA1423`

Presentations, Conferences and Seminars

Invited Presentations

Dec 2024 — *Dynamic Mixture of Finite Mixtures of Factor Analysers*, 18th International Joint Conference on Computational and Financial Econometrics (CFE) and Computational and Methodological Statistics (CMStatistics) 2024 (London, UK).

Oct 2023 — *Dynamic Mixture of Finite Mixtures of Factor Analysers with Automatic Inference on the Number of Clusters and Factors*, International Day of Women in Statistics and Data Science (IDWSDS) 2023 (virtual).

Dec 2022 — *Dynamic Mixture of Finite Mixtures of Factor Analysers with Automatic Inference on the Number of Clusters and Factors*, 15th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics) 2022 (London, UK).

Contributed Presentations

Dec 2023 — *Dynamic Mixture of Finite Mixtures of Factor Analysers with Automatic Inference on the Number of Clusters and Factors*, European Winter Meeting of The Econometric Society (EWMES) 2023 (Manchester, UK).

Presentations, Conferences and Seminars (continued)

- Sep 2023 — *Dynamic Mixture of Finite Mixtures of Factor Analysers with Automatic Inference on the Number of Clusters and Factors*, European Seminar on Bayesian Econometrics (ESOBE) 2023 (Glasgow, UK).
- Sep 2022 — *Dynamic Mixture of Finite Mixtures of Factor Analysers with Automatic Inference on the Number of Clusters and Factors*, European Seminar on Bayesian Econometrics (ESOBE) 2022, Young Researcher Session (Salzburg, Austria).
- Apr 2022 — *Mixture of Factor Analysers and Adaptive Telescoping Sampler for Automatic Inference on the Number of Clusters and Factors*, BNP 2022 Networking Workshop (Nicosia, Cyprus).
- Aug 2021 — *Bayesian Infinite Factor Models with Non-Gaussian Factors*, Joint Statistical Meetings 2021 (virtual).
- Jul 2021 — *Bayesian Infinite Factor Models with Non-Gaussian Factors*, 2021 ISBA World Meeting (virtual).

Posters

- Jul 2024 — *Dynamic Mixture of Finite Mixtures of Factor Analysers*, 2024 ISBA World Meeting (Venice, Italy).
- Jun 2022 — *Mixture of Factor Analysers and Adaptive Telescoping Sampler for Automatic Inference on the Number of Clusters and Factors*, 2022 ISBA World Meeting (Montreal, Canada).
- Jun 2021 — *Bayesian Infinite Factor Models with Non-Gaussian Factors*, 2021 ISBA World Meeting (virtual).

Seminars

- Jan 2025 — *Dynamic Mixture of Finite Mixtures of Factor Analysers*, European University at St. Petersburg (EUSP) Research Seminar (virtual).
- Dec 2021 — *Bayesian Infinite Factor Models with Non-Gaussian Factors*, Center for Econometrics and Business Analytics (CEBA) Research Seminar (virtual).

Teaching

- Insurance Mathematics — Saint Petersburg State University, WS 2004/2005

Awards and Funding

- Jul 2024 — **Travel grant**, ISBA 2024 world meeting
- Sep 2022 — **Travel grant**, ESOBE 2022 conference
- Apr 2022 — **Travel grant**, BNP 2022 networking event
- 1996-2001 — **Merit-based scholarship** for undergraduate studies awarded by Saint Petersburg State University

Languages

- English — fluent, native speaker proficiency (Cambridge CPE certificate)
- German — fluent, full proficiency in writing, reading and speaking
- French — advanced (C1), very confident in reading and writing, slightly less in speaking
- Russian — native speaker

Computer Skills

- R, Python (NumPy, SciPy, sklearn, statsmodels, matplotlib), MATLAB, Stata, Mathematica, LaTeX

Service to Profession

External referee for Bayesian Analysis

Memberships

Member of the International Society for Bayesian Analysis (ISBA), fellow of the Royal Statistical Society (RSS).