

Margarita Grushanina

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Employment History

- 2014 – present **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 Stiasny
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)
- 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).

Schools and Trainings (continued)

- 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

Preprints



- 1 **Grushanina, M.** (2023). A Review of Bayesian Methods for Infinite Factorisations. arXiv: 2309.12990
- 2 **Grushanina, M., & Frühwirth-Schnatter, S.** (2023). Dynamic Mixture of Finite Mixtures of Factor Analysers with Automatic Inference on the Number of Clusters and Factors. *Submitted to Bayesian Analysis (under review)*. arXiv: 2307.07045

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.

Presentations, Conferences and Seminars


Invited Presentations

- 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

- 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 (ESOB) 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 (ESOB) 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

- 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).

Presentations, Conferences and Seminars (continued)

Jun 2021  *Bayesian Infinite Factor Models with Non-Gaussian Factors*, 2021 ISBA World Meeting (virtual).

Seminars

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


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

Memberships

Member of the International Society for Bayesian Analysis (ISBA), American Statistical Association (ASA).