

Aleksei Minabutdinov

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WORK EXPERIENCE

- 2021 - present **ETH Zürich, Zürich, Switzerland**
Lecturer/Postdoctoral Researcher
· Environmental economics, Dynamic programming, Stochastic processes
- 2020 - 2022 **European University, Saint-Petersburg**
Visiting lecturer
· Convex optimization (PhD program)
- 2013 - 2021 **Higher School of Economics, Saint-Petersburg, Russia**
Senior Lecturer (Dec. 2013–Aug. 2018); Assistant professor (since Sept. 2018)
· Mathematical Economics and Statistics (Master's program)
· Instrumental methods in economics (Master's program)
· Workshops on Mathematical Analysis (Bachelors's program)
· Introduction to Econometrics
- 2019 - 2020 **Denti.AI, Saint-Petersburg, Russia/ Toronto, Canada**
Researcher
· Computer vision, Computational biology;
- 2012 - 2013 **European University, Saint-Petersburg, Russia**
Post-Graduate Researcher/Teaching Assistant
· Economic growth models
· Part-time assistance for financial mathematics course
- 2012 - 2013 **Inbergo, Saint-Petersburg, Russia**
Analyst
· Social Network Analysis, Short text message classification, Data mining
- 2011 - 2012 **Saint-Petersburg State University, Saint-Petersburg, Russia**
Part-time Teaching Assistant
· Workshops on Mathematical and Functional Analysis
- 2007 - 2009 **Larsen-Service, Saint-Petersburg, Russia**
Developer
· Analyzed and programmed client databases

HIGHER EDUCATION

- 2013 - 2017 **Steklov Mathematical Institute (St. Petersburg Department),**
PhD in Mathematics, ergodic theory,
Thesis "Limiting curves for a class of self-similar adic transformations"
Supervisor: Prof. Anatoly Vershik
- 2010 - 2012 **The European University at St. Petersburg (EUSP), Saint-Petersburg**
Masters degree in Economics
- 2005 - 2010 **Saint-Petersburg University, Saint-Petersburg**
Masters degree in Mathematics

AWARDS

- 2017 RFBR grant
- 2014 RFBR grant
- 2012 Rokhlin Grant for Talented Mathematicians
- 2012 BNP Paribas advanced scholarship at EUSP

ADDITIONAL COURSES AND CONFERENCES

Nov. 2-3, 2023	PSE-ETH Workshop	Paris, France
Aug. 24-25, 2023	Deep Learning Solving Dynamic Models	Lausanne, Switzerland
June 28-30, 2023	INFORMS Applied Probability Conference	Nancy, France
July 6-14, 2022	EEML 2022	Vilnius, Lithuania
June 6-9, 2022	SURED 2022	Monte Verità, Switzerland
June 23-24, 2022	9th Atlantic Workshop on Energy and Environmental Economics	A Toxa, Spain
April 25-26, 2022	10th Mannheim Conference on Energy and the Environment	Mannheim, Germany
Aug. 12-16, 2019	Deep RL for CG	Joensuu, Finland
Jul. 1-6, 2019	EEML 2019	Bucharest, Romania
Jun. 24-28, 2019	DS3 Summer School	Paris, France
Aug. 27-31, 2018	Deep Bayes Summer School	Moscow, Russia
Aug. 1-4, 2017	Conf. Integrable Models in Statistical Mechanics, Limit Shapes and Combinatorics	Saint-Petersburg, Russia
Febr. 1-4, 2017	Conf. New Advances in Symbolic Dynamics	Marcel (Luminy), France
Sept. 1-4, 2015	Conf. Dynamics, Combinatorics, Representations	Saint-Petersburg, Russia
Sept. 7-11, 2015	Summer School in Mathematical Finance	Sochi, Russia
July 3-10, 2014	Summer School in Mathematical Finance	Saint-Petersburg, Russia
June 18-29, 2012	St. Petersburg School in Probability and Stat. Physics	Saint-Petersburg, Russia
July 16-20, 2012	Fifth International Summer School on Imprecise Probabilities: Theories and Applications	Pescara, Italy
December, 2011	BNP Paribas Investment Academy for students	Saint-Petersburg, Russia
August 1-5, 2011	Estimation and Evaluation of DSGE Models	Oslo, Norway

PAPERS

- L. Bretschger, K. Borissov, A. Minabutdinov *The Capital Tax Paradox in a Greening Economy*, International Economics and Economic Policy, Vol 19, P. 315–329, 2022.
- A. Minabutdinov, I. Manaev, M. Bouev *Finding the Nearest Valid Covariance Matrix: a FX Market Case*, Journal of Computational Finance, Vol. 24. No. 2. P. 103-127, 2020.
- A. Minabutdinov *Limiting Curves for the Dyadic Odometer*, J. Math Sci, Vol. 247, P. 688-695, 2020.
- A. Minabutdinov, *Limiting curves for polynomial adic systems*, Zap. Nauchn. Sem. POMI Vol. 448, P. 177-200, 2016.
- A. Lodkin, A. Minabutdinov, *Limiting Curves for the Pascal Adic Transformation*, Journal of Mathematical Sciences, Vol. 216. No. 1. P. 94-119, 2016
- A. Minabutdinov, *A Higher Order Asymptotic Expansion of the Krawtchouk Polynomials*, Journal of Mathematical Sciences, Vol. 215. No. 6. P. 738-747, 2016.
- A. Minabutdinov, *Random Deviations of Ergodic Sums for the Pascal Adic Transformation in the Case of the Lebesgue Measure*, Journal of Mathematical Sciences, Vol. 209. P. 953-978, 2015.
- O. Malakhovskaya, A. Minabutdinov, *A Bayesian Estimation of a DSGE Model for Russia*, International Journal of Computational Economics and Econometrics. Vol. 4. No. 1/2. P. 148-180, 2014.
- A. Minabutdinov, I. Manaev, *Kruskal–Katona function, Conway sequence, Takagi curve and Pascal adic*, Zap. Nauchn. Sem. POMI (St. Petersburg), 2013.
- A. Lodkin, I. Manaev, A. Minabutdinov, *A realization of the Pascal automorphism in the concatenation graph and the sum-of-digits $s_2(n)$ function*, Journal of Mathematical Sciences, 2012.
- A. Lodkin, I. Manaev, A. Minabutdinov, *Asymptotic behavior of the scaling entropy of the Pascal adic transformation*, Journal of Mathematical Sciences (New York), 2011.

PREPRINTS

- A. Minabutdinov, J. Lehtomaa, *Initializing deep input convex neural networks*, .2022
- Nirosha J. Murugan, Daniel H. Kaltman, Hong Jin, Melanie Chien, Ramses M. Flores, Cuong Q. Nguyen, Dmitry Tuzoff, Alexey Minabutdinov, Anna Kane, Richard Novak, Donald E. Ingber, Michael Levin, *Mechanosensation Mediates Long-Range Spatial Decision-Making in an Aneural Organism*, bioRxiv, doi.org/10.1101/2020.03.20.985523, 2020.

A. Minabutdinov, *q-weighted analogue of the Trollope-Delange formula*, SPb. Math. Soc. 2019

SKILLS, LANGUAGES & INTERESTS

Python, Matlab, Java, C/C++, Maple, R, Eviews, Stata, L^AT_EX

Proficiency in English, Russian(native), German(A2), Italian(beginner)

Sports, Literature, History