

# Anna Bykhovskaya

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## Employment

**2022 –** Assistant Professor, Duke, Department of Economics  
**2019 – 2022** Juli Plant Grainger Postdoctoral Fellow,  
UW Madison, Department of Economics

## Education

**PhD**, Economics, Yale University, 2019  
Dissertation: “Peer Effects: Theory and Measurement”  
Advisors: Peter C.B. Phillips, Larry Samuelson  
**MA, MPhil**, Economics, Yale University, 2016  
**MA**, Economics, *Cum Laude*, New Economic School, 2013  
**BS, MS**, Mathematics (with specialization in probability theory),  
*Summa Cum Laude*, Moscow State University, 2012

## Research Interests

Time Series Econometrics, Networks, Matching and Market Design

## Publications

“Asymptotics of Cointegration Tests for High-Dimensional VAR( $k$ )” (with Vadim Gorin), forthcoming, *Review of Economics and Statistics*  
“The Local to Unity Dynamic Tobit Model” (with James A. Duffy), *Journal of Econometrics*, Vol. 241, No. 2, 2024  
“Time Series Approach to the Evolution of Networks: Prediction and Estimation”, *Journal of Business and Economic Statistics*, Vol. 41, No. 1, 2023  
“Cointegration in Large VARs” (with Vadim Gorin), *Annals of Statistics*, Vol. 50, No. 3, 2022

“Stability in Matching Markets with Peer Effects”, *Games and Economic Behavior*, Vol. 122, July 2020

“Point Optimal Testing with Roots that are Functionally Local to Unity” (with Peter C.B. Phillips), *Journal of Econometrics*, Vol. 219, No. 2, 2020

“Boundary Limit Theory for Functional Local to Unity Regression” (with Peter C.B. Phillips), *Journal of Time Series Analysis*, Vol. 39, No. 4, 2018

### Working papers

“Estimation of a Dynamic Tobit Model with a Unit Root” (with James A. Duffy), 2025

“How Weak are Weak Factors? Uniform Inference for Signal Strength in Signal Plus Noise Models” (with Vadim Gorin and Sasha Sodin), 2025

“Canonical Correlation Analysis: Review” (with Vadim Gorin), 2024

“High-Dimensional Canonical Correlation Analysis” (with Vadim Gorin), 2025

“LARGEVARs: An R Package for Testing Large VARs for the Presence of Cointegration” (with Vadim Gorin and Eszter Kiss), 2025

### Conference publications

“Limiting variance of  $(\beta, \alpha)$ -transformations”, *Proceedings of International Youth Scientific Forum “Lomonosov-2012”* (in Russian), 2012

“ $(\beta, \alpha)$ -transformations and codings”, *Proceedings of International Youth Scientific Forum “Lomonosov-2011”* (in Russian), 2011

### Seminar and Conference Presentations

- 2025    *Cowles Conference on Econometrics*, New Haven, USA  
         *NBER-NSF Time Series Conference*, Rutgers, USA  
         *ASSA: Journal of Econometrics Invited Session*, San Francisco, USA  
         Notre Dame, Duke, UIUC, UW Seattle, Cambridge, Princeton, UC Berkeley, OSU, Georgetown, MIT/Harvard
- 2024    *Women in Econometrics Conference*, Bologna, Italy  
         Texas A&M (Statistics), Bologna, Rutgers
- 2023    *7th Eastern Conference on Mathematical Finance*, NCSU, Raleigh, USA  
         *NBER-NSF Time Series Conference*, UQAM (Montréal), Canada  
         *Workshop on Big Data in Economics and Finance*, Cambridge, UK  
         *Center for Econometrics and Business Analytics*, online  
         *Triangle Econometrics Conference*, UNC - Chapel Hill, USA  
         Duke, UCSD, NUS, SMU, Penn State, Indiana, Penn, Brown, BU
- 2022    *NES30 Academic Conference in Memory of Gur Ofer*, online

- Virtual Time Series Seminar*, online  
*The Gary Chamberlain Online Seminar in Econometrics*, online  
*Cowles Conference on Econometrics*, New Haven, USA  
*International Conference on Econometrics and Statistics*, online  
TSE, McGill, Duke, LSE, Oxford, Boston College, Bristol, Durham,  
UW Milwaukee, UC Riverside, Princeton, UVA (Math Colloquium),  
Northwestern
- 2021 *International Conference on Computational & Financial Econometrics*, online  
*NES Alumni seminar*, online  
*European Summer Meeting of the Econometric Society*, online  
*North American Summer Meeting of the Econometric Society*, online  
Ohio State, UW Madison, Cambridge, Hebrew University Jerusalem
- 2020 *Russian Integrable Probability Seminar*, online
- 2019 UC Berkeley, Cornell, UW Madison
- 2018 *International Conference on Game Theory*, Stony Brook University, USA  
*Tripartite Conference*, Singapore  
*NYU Micro Theory Student Lunch*, New York University, USA
- 2017 *NES 25th Anniversary Conference*, Moscow, Russia

## Teaching

### Duke:

Topics in Time Series Econometrics, Fall 2024 (graduate)  
Time Series Econometrics, Spring 2023, 2024, 2025 (master's)  
PhD Econometrics, Spring 2023, 2024, 2025, 2026 (graduate)

### UW Madison:

Economic Forecasting, Spring 2020, 2021, 2022 (undergraduate)  
Mathematical Economics (Math Camp), Fall 2020, 2021 (graduate)

### Yale University (teaching fellow):

General Economic Theory: Microeconomics, Fall 2015, 2016, Spring 2017, 2019  
(graduate)  
Intermediate Microeconomics, Spring 2016 (undergraduate)

### New Economic School (teaching fellow):

Game Theory, Winter 2013 (master's)

### Moscow School #57 (teaching fellow):

Evening math study group, 2007 – 2008 (middle school)

## Professional Activities

### Editorship:

Associate Editor, *Econometric Theory* (2026– )

### Conference Organization:

Workshop on *Applications of Random Matrices in Economics and Statistics*,  
May 2023, Oxford, UK

**Programme Committee:** ESEM 2023, Barcelona, Spain; IAAE 2025, Turin, Italy;

**Referee Service:** *Annals of Statistics*, *Biometrika*, *Econometric Theory*, *Econometrics and Statistics*, *Journal of American Statistical Association*, *Journal of Business and Economic Statistics*, *Journal of Econometrics*, *Journal of Financial Econometrics*, *Oxford Bulletin of Economics and Statistics*, *Quantitative Economics*, *Review of Economic Studies*, *The Econometrics Journal*, *Theoretical Economics*

## Other

**Citizenship:** USA, Russia

**Languages:** Russian (native), English (fluent), French (intermediate)

**Software:** C/C++, Gauss, Matlab, Mathematica, Stata, LaTeX