

# Ekaterina Seregina

✉ eseregina@colby.edu • 🌐 seregina.info • 📧 ekat92

DEPARTMENT OF ECONOMICS • COLBY COLLEGE

📍 5205 Mayflower Hill, Waterville, ME 04901

## Academic Appointments

### Colby College

DOUGLAS ASSISTANT PROFESSOR OF ECONOMICS AND FINANCE

Waterville, ME

Jul 2021 –

### Duke University

VISITING SCHOLAR

Durham, NC

Sep 2024 – Jun 2025

**Research Areas** Econometric Theory · Financial Econometrics · Asset Management · Forecasting · Machine Learning

## Education

### University of California, Riverside

PHD IN ECONOMICS

Riverside, CA

Sep 2016 – Jun 2021

## Publications

- [1] “COMBINING FORECASTS UNDER STRUCTURAL BREAKS USING GRAPHICAL LASSO” (with TH Lee)  
*International Journal of Forecasting*, 2025
- [2] “DOUBLY SPARSE ESTIMATOR FOR HIGH-DIMENSIONAL COVARIANCE MATRICES” (with V. Kutateladze)  
*Econometrics and Statistics*, 2024
- [3] “A BASKET HALF FULL: SPARSE PORTFOLIOS”  
*Quantitative Finance* (2023), 12, 1833-1852
- [4] “OPTIMAL PORTFOLIO USING FACTOR GRAPHICAL LASSO” (with TH Lee)  
*Journal of Financial Econometrics*, 2023
- [5] ECONOMETRICS WITH MACHINE LEARNING, Chapter 8: Graphical Models and their Interactions with Machine Learning in the Context of Economics and Finance  
*Advanced Studies in Theoretical and Applied Econometrics*, vol 53. Springer, September 2022
- [6] “FAST AND EFFICIENT DATA SCIENCE TECHNIQUES FOR COVID-19 GROUP TESTING” (with V. Kutateladze)  
*Journal of Data Science* (2021), 1-19

## Proceedings

- [7] ELICITABILITY & ENCOMPASSING FOR VOLATILITY FORECASTS BY BREGMAN FUNCTIONS (with TH Lee & Y. Xu)  
*In JSM Proceedings 2023. Toronto, Canada*
- [8] “OPTIMAL FINANCIAL PORTFOLIO USING GRAPHICAL LASSO UNDER UNSTABLE ENVIRONMENT” (with TH Lee)  
*In JSM Proceedings, Statistical Learning and Data Science Section. 2021. Alexandria, VA: American Statistical Association*

## Working Papers

- [9] “A NONLINEAR TARGET-FACTOR MODEL WITH ATTENTION MECHANISM FOR MIXED PANELS”(with A. Brini)
- [10] “HIGHER ORDER ELICITABILITY AND FORECAST ENCOMPASSING FOR VOLATILITY FORECASTS BY BREGMAN FUNCTIONS”(with TH Lee & Y. Xu)
- [11] “LEARNING FROM FORECAST ERRORS: A NEW APPROACH TO FORECAST COMBINATION” (with TH Lee)
- [12] “TIME-VARYING FACTOR GRAPHICAL MODELS”(with TH Lee)

## Presentations

2026

University of California Riverside

2024

Duke University, North Carolina State University

2023

University of California Riverside, 2023 Symposium on Data Science and Statistics, California Econometrics Conference 2023 (UW, Seattle, WA), 2023 Meeting of the Midwest Econometrics Group, NABE TEC 2023

2022

The University of Maine

2021

Vilnius University (Dpt of Finance), Colby College, SIU Carbondale, Southwestern Finance Ass'n Conference, Joint Statistical Meeting, The Université du Québec à Montréal, 16th Conference on Asia-Pacific Financial Markets

2020

14th Int'l CFENetwork 2020, EWM of the Econometric Society, World Finance and Banking Symp., 2020 NABE Tech Economics, 40th Int'l Symp. on Forecasting, Department of Economics, UCR, Department of Finance, UCR

## Teaching

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### Colby College

INSTRUCTOR

Fall 2021 –

Financial Technology · Corporate Finance I · Corporate Finance II

### University of California, Riverside

INSTRUCTOR

Summer 2019, 2020

Stock Market · Intermediate Macroeconomic Theory

TEACHING ASSISTANT

Sep 2017 – Jun 2021

Econometrics (PhD) · Macroeconomics (PhD) · Stock Market · Statistics · Intermediate Macroeconomics

## Honors & Awards

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2022	Davis AI course development grant 2022-23, Colby College	Waterville, ME
2020	Dissertation Year Program Award for Excellence in Research, UC Riverside	Riverside, CA
2019	Outstanding Teaching Assistant Award for Excellence in Teaching, UC Riverside	Riverside, CA
2016	University of California Dean's Distinguished Fellowship	Riverside, CA

## Academic Service

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INFORMATION TECHNOLOGY COMMITTEE MEMBER

2023 –

A Representative of the Social Sciences Division

DAVIS INSTITUTE FOR AI ADVISORY COMMITTEE MEMBER

2021 – 22

A Representative of the Social Sciences Division

### Refereeing

Econometric Reviews · Econometrics · The Energy Journal · Financial Innovation · International Journal of Forecasting · Studies in Nonlinear Dynamics & Econometrics

## Additional Information

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SOFTWARE	R · Python · Matlab · SAS · STATA · MySQL · BigQuery · Bloomberg Terminal · Datastream · T <sub>E</sub> X
MEMBERSHIP	AEA · AFA · AMS · ASA · FMA · GLASSNET · IIF · SFS · SoFie · SWFA