Ekaterina Seregina

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DEPARTMENT OF ECONOMICS • COLBY COLLEGE

📍 5205 Mayflower Hill, Waterville, ME 04901

Academic Appointments

Colby College   *Waterville, ME*
DOUGLAS ASSISTANT PROFESSOR OF ECONOMICS AND FINANCE   *Jul 2021 –*

Duke University   *Durham, NC*
VISITING SCHOLAR   *Sep 2024 – Jun 2025*

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

Education

University of California, Riverside   *Riverside, CA*
PHD IN ECONOMICS   *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

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

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

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

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

SOFTWARE	R · Python · Matlab · SAS · STATA · MySQL · BigQuery · Bloomberg Terminal · Datastream · TEX
MEMBERSHIP	AEA · AFA · AMS · ASA · FMA · GLASSNET · IIF · SFS · SoFiE · SWFA