

Rajita Chandak

Institute of Mathematics, EPFL – September 2025

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Appointments

Bernoulli Instructor

Institute of Mathematics, École Polytechnique Fédérale de Lausanne (EPFL)
Chargée de cours et collaboratrice scientifique.
Mentor: [Victor Panaretos](#)

Lausanne, Vaud, Switzerland

2024–2026

Education

Princeton University

Ph.D. in Operations Research and Financial Engineering (ORFE)
Dissertation: *Adaptive nonparametric statistical theory and implementation*
Advisor: [Matias Cattaneo](#)

Princeton, NJ, USA

2019–2024

Princeton University

M.A. in Operations Research and Financial Engineering (ORFE)

Princeton, NJ, USA

2019–2021

Brown University

Sc.B. with Honors in Applied Mathematics and Economics
Honors Thesis: *Energy-aware optimization of scalable load balancing strategies*
Advisor: [Kavita Ramanan](#)

Providence, RI, USA

2015–2019

Research

Publications

1pcde: **Estimation and Inference for Local Polynomial Conditional Density Estimators**

Journal of Open Statistical Software, 10(107), 7241, March 2025

with [Matias Cattaneo](#), [Xinwei Ma](#) and [Michael Jansson](#)

Convergence rates of oblique regression trees for flexible function libraries

Annals of Statistics, Vol. 52, No. 2, 466–490, April 2024

with [Matias Cattaneo](#) and [Jason Klusowski](#)

Boundary adaptive local polynomial conditional density estimators

Bernoulli, Vol. 30, No. 4, 3193–3223, November 2024

with [Matias Cattaneo](#), [Xinwei Ma](#) and [Michael Jansson](#)

Preprints

On the convergence of a federated expectation-maximization algorithm

with [Zhixu Tao](#) and [Sanjeev Kulkarni](#)

[arxiv:2408.05819](#)

Under review

Working Papers

Consistency of the EM algorithm in high dimensions

with [Matias Cattaneo](#) and [Jason Klusowski](#)

Manipulation testing based on distance to boundaries

with [Matias Cattaneo](#) and [Xinwei Ma](#) and [Michael Jansson](#)

A new variable importance metric for oblique regression trees

Honors and Awards

2024 Scholar Award

Maheshwari Vidya Pracharak Mandal (MVPM), Pune, India

2025

Invited paper for Annals of Statistics session at Joint Statistical Meeting (JSM)

Paper: “Convergence Rates of Oblique Regression Trees for Flexible Function Libraries”

2025

Bernoulli Instructorship

École Polytechnique Fédérale de Lausanne (EPFL), Switzerland

2024 – 2026

School of Engineering and Applied Science Travel Grant

Princeton University

2023

Finalist for Graduate Research Fellowship <i>Jane Street</i>	2023
School of Engineering and Applied Science Award for Excellence <i>Princeton University</i>	2022

Talks and Conferences

CFE-CMStatistics <i>Invited speaker</i>	London, UK <i>December 2025</i>
24th European Young Statisticians Meeting (EYSM) <i>Invited speaker</i>	Torino, Italy <i>July 2025</i>
Conference for Women in Mathematics <i>Invited speaker</i>	Lausanne, Switzerland <i>May 2025</i>
University of Groningen <i>Econometrics Seminar, Department of Economics</i>	Groningen, NL <i>February 2024</i>
London School of Economics (LSE) <i>Statistics Seminar, Department of Statistics</i>	London, UK <i>January 2024</i>
University of Wisconsin-Madison <i>Statistics Seminar, Department of Statistics</i>	Virtual <i>January 2024</i>
EPFL Statistics Seminar <i>Statistics Seminar, Institute of Mathematics</i>	Virtual <i>December 2023</i>
Joint Statistical Meeting <i>Invited speaker, Topic-contributed session on decision trees and random forests</i>	Toronto, CA <i>August 2023</i>
Statistical foundations of data science and their applications <i>Princeton University</i> Local organizing committee member	Princeton, NJ, USA <i>May 2023</i>
Jane Street <i>Invited speaker, Graduate Research Fellowship Workshop</i>	New York City, NY, USA <i>April 2023</i>
Symposium for Undergraduates in Mathematical Sciences (SUMS) <i>Invited speaker, hosted at Brown University</i>	Providence, RI, USA <i>2018, 2019</i>
Joint Mathematics Meeting <i>AMS, MAA</i>	Baltimore, MD, USA <i>2018, 2019</i>
Women in Mathematics in New England (WIMIN) <i>Smith College</i>	Northampton, MA, USA <i>September 2018</i>
MIST Workshop <i>WPI, Applied and Industrial Mathematics Institute for Secondary Teaching</i>	Worcester, MA, USA <i>July 2018</i>

Teaching Experience

Lecturer (Chargée de cours) <i>Institute of Mathematics, EPFL</i> MATH 524: Nonparametric estimation and inference (Spring 2025, Spring 2026). MATH 562: Statistical Inference (Fall 2025), MATH 413: Statistics for data science (Spring 2025) (co-taught with Myrto Limnios).	Lausanne, CH <i>2024-Present</i>
Graduate Assistant in Instruction <i>ORFE, Princeton University</i> ORF 499: Senior Thesis (Spring 2024), SML 312: Research Projects in Data Science (Fall 2023), ORF 498: Senior Independent Research Foundations (Fall 2023), ORF 504: Financial Econometrics (Spring 2023), ORF 524: Statistical Theory and Methods (Fall 2021, Fall 2022), ORF 245: Fundamentals of Statistics (Fall 2020, Spring 2021).	Princeton, USA <i>2020-2024</i>
Undergraduate Teaching Assistant <i>Department of Applied Mathematics, Brown University</i>	Providence, USA <i>2017 – 2019</i>

APMA1720: Monte Carlo Simulations with Applications to Finance (Spring 2019),
MPA2065: Intro. to Data Science for the Masters of Public Affairs program (Spring 2018),
APMA1650: Statistical Inference I (Fall 2017).

Work Experience

NSF Research Experience for Undergraduates (REU) **Worcester Polytechnic Institute (WPI), MA**
Award DMS 1757685 2018

NSF Research Experience for Undergraduates (REU) **California State University (CSU), Chico, CA**
Award NSF 1559788 2017

Software and Programming Skills

R packages: [lpcde](#)

Python packages: [lpcdensity](#), [rddensity](#)

Additional programming experience: C++, Julia, Matlab, Mathematica, STATA, Java, HTML, CSS

Service

Masters student supervision **2024–2026**
Primary advisor

Mentoring masters theses and semester projects for students in Masters programs in the Institute of Mathematics (includes the Masters of Applied Mathematics, Masters of Statistics and Masters of Mathematics).

EPFL Statistics Seminar **2024–2026**
Co-organizer

Peer Review **Since 2021**
Annals of Statistics, Bernoulli, Econometric Theory, Journal of the American Statistical Association (JASA), Journal of Causal Inference (JCI), Journal of Econometrics (JOE), Journal of Machine Learning Research (JMLR), Journal of Statistical Planning and Inference, Operations Research (OR).

Senior Thesis Writer's Group Co-Leader **Princeton, NJ**
ORFE Department, Princeton University 2020-2023
Mentored 4th year undergraduate students in ORFE with thesis research and writing. Offered as a regular course (ORF 498/499) starting Fall 2023.

Languages

English: Native Proficiency

Hindi: Native Proficiency

French: Intermediate (CEFR B1)