

Rajita Chandak

Institute of Mathematics, EPFL – November 10, 2024

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Appointments

Bernoulli Instructor <i>Institute of Mathematics, École Polytechnique Fédérale de Lausanne (EPFL)</i> Mentor: Victor Paneretos	Lausanne, Vaud, Switzerland 2024–2026
Assistant Professor <i>Department of Statistics, University of Wisconsin-Madison</i>	Madison, WI, USA starting 2026

Education

Princeton University <i>Ph.D. in Operations Research and Financial Engineering (ORFE)</i> Dissertation: <i>Adaptive nonparametric statistical theory and implementation</i> Advisor: Matias Cattaneo	Princeton, NJ, USA 2019–2024
Princeton University <i>M.A. in Operations Research and Financial Engineering (ORFE)</i>	Princeton, NJ, USA 2019–2021
Brown University <i>Sc.B. with Honors in Applied Mathematics and Economics</i> Honors Thesis: <i>Energy-aware optimization of scalable load balancing strategies</i> Advisor: Kavita Ramanan	Providence, RI, USA 2015–2019

Honors and Awards

Invited paper for Annals of Statistics session at Joint Statistical Meeting (JSM) <i>Paper: “Convergence Rates of Oblique Regression Trees for Flexible Function Libraries”</i>	2025
Bernoulli Instructorship <i>École Polytechnique Fédérale de Lausanne (EPFL)</i>	2024 – 2026
School of Engineering and Applied Science Travel Grant <i>Princeton University</i>	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

Research

Publications

Convergence rates of oblique regression trees for flexible function libraries

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

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

Boundary adaptive local polynomial conditional density estimators

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

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](#)

Submitted

lpcde: Local polynomial conditional density estimation and inference

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

[arxiv:2204.10375](#)

R&R at JOSS

Working Papers

Consistency of the EM algorithm in high dimensions

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

A new variable importance metric for oblique regression trees

Work Experience

NSF Research Experience for Undergraduates (REU)

Award DMS 1757685

Worcester Polytechnic Institute (WPI), MA

2018

NSF Research Experience for Undergraduates (REU)

Award NSF 1559788

California State University (CSU), Chico, CA

2017

Talks and Conferences

University of Groningen

Econometrics Seminar, Department of Economics

Groningen, NL

February 2024

London School of Economics (LSE)

Statistics Seminar, Department of Statistics

London, UK

January 2024

University of Wisconsin-Madison

Statistics Seminar, Department of Statistics

Virtual

January 2024

EPFL Statistics Seminar

Statistics Seminar, Institute of Mathematics

Virtual

December 2023

Joint Statistical Meeting

Invited speaker, Topic-contributed session on decision trees and random forests

Toronto, CA

August 2023

Statistical foundations of data science and their applications

Princeton University

Princeton, NJ, USA

May 2023

Local organizing committee member

Jane Street

Invited speaker, Graduate Research Fellowship Workshop

New York City, NY, USA

April 2023

Symposium for Undergraduates in Mathematical Sciences (SUMS)

Invited speaker, hosted at Brown University

Providence, RI, USA

2018, 2019

Joint Mathematics Meeting

AMS, MAA

Baltimore, MD, USA

2018, 2019

Women in Mathematics in New England (WIMIN)

Smith College

Northampton, MA, USA

September 2018

MIST Workshop

WPI, Applied and Industrial Mathematics Institute for Secondary Teaching

Worcester, MA, USA

July 2018

Teaching Experience

Lecturer (as Bernoulli Instructor)

Institute of Mathematics, EPFL

Lausanne, CH

2024-Present

MATH 524: Nonparametric estimation and inference, Spring 2025.

MATH 413: Statistics for data science, Spring 2025 (co-taught with [Myrto Limnios](#)).

Graduate Assistant in Instruction

ORFE, Princeton University

Princeton, NJ, USA

2020-2024

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).

Undergraduate Teaching Assistant

Department of Applied Mathematics, Brown University

Providence, RI, USA

2017 – 2019

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).

Software and Programming Skills

R packages: [lpcde](#)

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

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

Service

EPFL Statistics Seminar

2024–2026

Co-organizer

Peer Review

Since 2021

Annals of Statistics,

Bernoulli,

Journal of the American Statistical Association (JASA),

Econometric Theory,

Operations Research (OR),

Journal of Causal Inference (JCI).

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 A2)