

# JULIEN CHHOR

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## Experience

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### Research

#### Toulouse School of Economics

Assistant Professor.

Sep. 2023 – Current

Toulouse, France

#### Harvard University

Postdoctoral Fellow. Advised by Rajarshi Mukherjee and Subhabrata Sen

Sep. 2022 – Current

Boston, MA, USA

#### CREST/ENSAE: PhD in Mathematical Statistics

Advised by Alexandre Tsybakov

Sep. 2019 – Aug. 2022

Palaiseau, France

#### OvGU Magdeburg

Research intern in Mathematical Statistics. Advised by Alexandra Carpentier

Apr. 2019 – Aug. 2019

Magdeburg, Germany

#### Michigan State University

Research intern in Bayesian Statistics. Advised by Frederi Viens

Apr. 2018 – Aug. 2018

Michigan, USA

### Teaching

#### Toulouse School of Economics

Stochastic Methods for Optimization and Sampling.

2024

Toulouse, France

#### ENSAE Paris

Teaching assistant: Measure Theory, Advanced Statistics, Nonparametric Statistics, Optimization, Online Learning and Aggregation, Machine Learning.

Ranked among the top 1% of ENSAE teachers (lecturers and professors) regarding pedagogical quality

Sep. 2019 – May 2022

Palaiseau, France

#### ENSAE Paris

Examiner in Mathematics for the oral entrance exams

Member of the recruiting committee for fourth-year students from Ecole polytechnique to join ENSAE.

May 2021 and 2022

Palaiseau, France

### Miscellaneous

#### Société Générale

Intern in credit risk modelling

Jun. 2017 – Aug. 2017

La Défense, France

## Education

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#### MVA (Mathematics, Vision and Learning)

Research-oriented master in Computer Vision and Machine Learning. Diploma awarded with highest honors

Sep. 2018 – Aug. 2019

ENS Cachan, France

#### ENSAE Paris

Spec. Statistics and Machine Learning

Sep. 2018 – Aug. 2019

Palaiseau, France

#### Ecole polytechnique

Mathematics, Physics, Computer Science, Spec. Applied Mathematics

Sep. 2015 – Aug. 2019

Palaiseau, France

#### Lycée Louis-le-Grand

Two-year intensive program in Mathematics and Physics, preparing for the entrance exams to the French Grandes Ecoles for scientific studies

Sep. 2013 – Jul. 2015

Paris, France

## Publications

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#### Sharp local minimax rates for goodness-of-fit testing in multivariate binomial and Poisson families and in multinomials

Julien Chhor, Alexandra Carpentier (2022) *Mathematical Statistics and Learning*.

#### Robust Estimation of Discrete Distributions under Local Differential Privacy

Julien Chhor, Flore Sentenac *Conference on Algorithmic Learning Theory 2023*.

arXiv:2202.06825

#### Sparse Signal Detection in Heteroscedastic Gaussian Sequence Models: Sharp Minimax Rates

Julien Chhor, Rajarshi Mukherjee, Subhabrata Sen *Bernoulli*, 2023

## **Benign overfitting and adaptive nonparametric regression**

Julien Chhor, Suzanne Sigalla, Alexandre Tsybakov (2024) *Probability Theory and Related Fields*

## **Goodness-of-Fit Testing for Hölder-Continuous Densities: Sharp Local Minimax Rates**

Julien Chhor, Alexandra Carpentier (2021) arXiv:2109.04346 *To appear in Bernoulli*

## **Preprints**

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### **Generalized multi-view model: Adaptive density estimation under low-rank constraints**

Julien Chhor, Olga Klopp, Alexandre Tsybakov (2024) arXiv:2404.17209

### **Locally sharp goodness-of-fit tests for high-dimensional counts**

Subhodh Kotekal, Julien Chhor, Chao Gao (2024) arXiv:2409.08871

## **Invited talks**

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### **Benign overfitting and adaptive nonparametric regression**

Journées de statistiques, Bordeaux, May 2024

### **Robust Estimation of Discrete Distributions under Local Differential Privacy**

Invited Session on Robust statistics and differential privacy, JSM 2023, Toronto

### **Robust Estimation of Discrete Distributions under Local Differential Privacy**

Stat 300 Seminar, Harvard University, USA, March 2023

### **Robust Estimation of Discrete Distributions under Local Differential Privacy**

Conference on Algorithmic Learning Theory, Singapore, February 2023

### **Benign overfitting and adaptive nonparametric regression**

Toulouse School of Economics, March 2023

### **Benign overfitting and adaptive nonparametric regression**

Bocconi University, Milan, Italy, January 2023

### **Benign overfitting and adaptive nonparametric regression**

Meeting in Mathematical Statistics, CIRM Luminy, France, December 2022

### **Benign overfitting and adaptive nonparametric regression**

Potsdam Statistics Seminar, November 2022

### **Benign overfitting and adaptive nonparametric regression**

Harvard University, October 2022

### **Robust Estimation of Discrete Distributions under Local Differential Privacy**

University of Potsdam, Germany, Mai 2022

### **Goodness-of-fit testing for multinomials and densities: sharp local minimax rates**

Meeting in Mathematical Statistics (Dec. 2020), CIRM Luminy, France

### **Minimax Testing in Random Graphs**

Statistics-Econometrics-Machine Learning Seminar (2019) CREST/ENSAE, France

## **Research visits**

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University of Chicago, May 2023

Humbolt University, July 2024

Paris School of Economics, October 2024

University of Chicago, October 2024

## **Professional Service**

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Reviewer for Test (2019)

Reviewer for the Annals of Statistics (2023-2024)

Reviewer for Bernoulli (2023-2024)

Reviewer for Information and Inference (2023)

Reviewer for JMLR (2024)

## **Awards**

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Leibnitz student, Oberwolfach Mathematical Institute.

Research quality bonus (Bonus qualité recherche), awarded by Toulouse School of Economics, 2024