

Yudong CHEN

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Columbia House, London School of Economics and Political Science
Houghton Street, London, WC2A 2AE, United Kingdom

EMPLOYMENT

LSE Fellow

September 2023 – present

Department of Statistics, London School of Economics and Political Science

Contribute to teaching undergraduate and graduate courses in statistics and data science by leading example classes, practical sessions, help sessions and marking course work as well as carry out independent research.

Research officer in Statistics

November 2021 – August 2023

Department of Statistics, London School of Economics and Political Science

Work as a postdoctoral researcher, hosted by Tengyao Wang, under his EPSRC grant on ‘Change-point analysis in high dimensions’.

EDUCATION

University of Cambridge, United Kingdom

MA

2023

PhD in Statistics (degree conferred in April 2023)

2018 – 2022

Thesis: High-dimensional online changepoint detection

Advisor: Richard J. Samworth and Tengyao Wang

BA and MMath

2014 – 2018

Results: First class (BA) and Distinction (MMath)

Tsinghua University, Beijing, China

2013 – 2014

Major: Pure and Applied Mathematics

RESEARCH INTERESTS

Changepoint detection, sequential testing, high-dimensional statistics, online algorithms, robust statistics and machine learning

PUBLICATIONS & PREPRINTS

Chen, Y., Wang, T. and Samworth, R. J. (2023) Inference in high-dimensional online changepoint detection. *J. Amer. Statist. Assoc.*, to appear.

Chen, Y., Wang, T. and Samworth, R. J. (2022) High-dimensional, multiscale online changepoint detection. *J. Roy. Statist. Soc., Ser. B*, **84**, 234–266.

Chen, Y., Chernov, R., Flores, M., Bourque M. F., Lee, S. and Yang, B. (2018) Toy Teichmüller spaces of real dimension 2: the pentagon and the punctured triangle. *Geom. Dedicata*, **197**, 193–227.

Li, M.*, Chen, Y.*, Wang, T. and Yu, Y. (2023) Robust high-dimensional change point detection under heavy tails. *In submission*, arXiv:2305.18987. (*equal contribution)

STATISTICAL SOFTWARE

Chen, Y., Wang, T. and Samworth, R. J. (2020) **ocd**, an R package for high-dimensional multiscale online changepoint detection, version 1.1. Available from *CRAN*.

TALKS

International Conference on Econometrics and Statistics (EcoSta 2023), Tokyo

August 2023

Workshop on Change Point Analysis, Warwick

May 2023

StatScale Industry Event, London

April 2023

IMS Annual Meeting, London

June 2022

StatScale Research Workshop and Retreat, York

March 2022

StatScale Seminar, Lancaster University

June 2020

Research Students’ Conference in Probability and Statistics, Exeter

June 2019

Cantab Capital Institute Workshop, University of Cambridge

June 2019

TEACHING & CONSULTING EXPERIENCES

Class teacher and lead help session teacher at London School of Economics
ST202/206 (2nd year): Probability, Distribution Theory and Inference 2022/23, 2023/24
ST447 (master): Data Analysis and Statistical Methods 2023/24
ST449 (master): Artificial Intelligence 2023/24

Supervisor for undergraduate level statistics courses at University of Cambridge
Part IB (2nd year) course: Statistics 2018/19, 2019/20, 2020/21
Part II (3rd year) course: Principles of Statistics 2018/19, 2019/20

Drop-in session helper for Part III master's level courses at University of Cambridge
Modern Statistical Methods, Statistical Learning in Practice, Convex Optimisation 2018/19, 2019/20

Teaching assistant for Statistical Computing course practical sessions at APTS 2019
APTS: Academy for PhD Training in Statistics in UK

Statistics Clinic consultant at University of Cambridge 2018 – 2021
The Statistics Clinic offers free statistical consulting services to all members of the broader research community within the university

SCHOLARSHIPS & AWARDS

Class Teacher Award, London School of Economics 2023
Smith–Knight Essay Prize (Group 2), Faculty of Mathematics, University of Cambridge 2020
Jardine Foundation Scholarship, Jardine Matheson 2014 – 2018
Henry Cavendish Scholar for top Maths student in college, Peterhouse, University of Cambridge 2017
Senior Burkill Prize for outstanding Maths students, Peterhouse, University of Cambridge 2016, 2017
Best Student Award, Shanghai High School 2013

PROFESSIONAL SERVICE

Referee for Annals of Statistics, Journal of the Royal Statistical Society Series B, Biometrika, Annals of Applied Statistics, Bernoulli and Journal of Computational and Graphical Statistics
Organiser and coordinator of the Cambridge Statistics Clinic 2020 – 2021

SKILLS & OTHER

Programming: R, Matlab, Python, C++
Language: English (fluent) and Mandarin (native)

REFERENCES

Prof. Richard J. Samworth
Professor of Statistics, Director
Statistical Laboratory
University of Cambridge
Cambridge, United Kingdom
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Dr. Tengyao Wang
Associate Professor in Statistics
Department of Statistics
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Prof. Paul Fearnhead
Distinguished Professor of Statistics
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