

Yudong CHEN

+44 7759 796433 y.chen276@lse.ac.uk

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

Contributing to teaching undergraduate and graduate courses in statistics and data science by leading example classes, practical sessions, help sessions and marking coursework as well as carrying out independent research.

Research officer in Statistics

November 2021 – August 2023

Department of Statistics, London School of Economics and Political Science

Working 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. and Chen Y. (2023) Discussion of *Automatic change-point detection in time series via deep learning* by J. Li, P. Fearnhead, P. Fryzlewicz and T. Wang. *J. Roy. Statist. Soc., Ser. B*, to appear.

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*.

AWARDS & SCHOLARSHIPS

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

TALKS

International Conference on Econometrics and Statistics (EcoSta 2023), Tokyo	<i>August 2023</i>
Workshop on Change Point Analysis, Warwick	<i>May 2023</i>
StatScale Industry Event, London	<i>April 2023</i>
IMS Annual Meeting, London	<i>June 2022</i>
StatScale Research Workshop and Retreat, York	<i>March 2022</i>
StatScale Seminar, Lancaster University	<i>June 2020</i>
Research Students' Conference in Probability and Statistics, Exeter	<i>June 2019</i>
Cantab Capital Institute Workshop, University of Cambridge	<i>June 2019</i>

TEACHING & CONSULTING EXPERIENCES

Class teacher and lead help session teacher at London School of Economics	
ST202/206 (2nd year): Probability, Distribution Theory and Inference	<i>2022/23, 2023/24</i>
ST447 (master): Data Analysis and Statistical Methods	<i>2023/24</i>
ST449 (master): Artificial Intelligence	<i>2023/24</i>
Supervisor for undergraduate level statistics courses at University of Cambridge	
Part IB (2nd year) course: Statistics	<i>2018/19, 2019/20, 2020/21</i>
Part II (3rd year) course: Principles of Statistics	<i>2018/19, 2019/20</i>
Drop-in session helper for Part III master's level courses at University of Cambridge	
Modern Statistical Methods, Statistical Learning in Practice, Convex Optimisation	<i>2018/19, 2019/20</i>
Teaching assistant for Statistical Computing course practical sessions at APTS	<i>2019</i>
APTS: Academy for PhD Training in Statistics in UK	
Statistics Clinic consultant at University of Cambridge	<i>2018 – 2021</i>
The Statistics Clinic offers free statistical consulting services to all members of the broader research community within the university	

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	<i>2020 – 2021</i>

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 <i>r.samworth@statslab.cam.ac.uk</i>	Dr. Tengyao Wang Associate Professor in Statistics Department of Statistics London School of Economics London, United Kingdom <i>t.wang59@lse.ac.uk</i>	Prof. Paul Fearnhead Distinguished Professor of Statistics Department of Maths and Statistics Lancaster University Lancaster, United Kingdom <i>p.fearnhead@lancaster.ac.uk</i>
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