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# Yao Zheng

November 2022

#### **EDUCATION**

Ph.D. in Statistics, University of Hong Kong, 2017.

B.Sc. (First-class honours) in Actuarial Science, University of Hong Kong, 2013.

## APPOINTMENTS

Assistant Professor, Department of Statistics, University of Connecticut, 2019-.

Post-doc Fellow and Visiting Assistant Professor, Department of Statistics and School of Industrial Engineering, Purdue University, 2017–2019.

## PUBLICATIONS AND MANUSCRIPTS

(Co-first author\*; Corresponding author†)

- [1] **Zheng, Y.** (2022). An interpretable and efficient infinite-order vector autoregressive model for high-dimensional time series. Submitted.
- [2] Huang, F., **Zheng**, Y.\*,†, Lu, K. and Li, G. (2022). SARMA: A computationally scalable high dimensional time series model. Submitted.
- [3] Zhu, Q., Tan, S., **Zheng, Y.** and Li, G. (2022). Quantile autoregressive conditional heteroscedasticity. Under revision.
- [4] Wang, D., **Zheng**, **Y.**<sup>†</sup> and Li, G. (2022). High-dimensional low-rank tensor autoregressive time series modeling. Under revision.
- [5] **Zheng, Y.**, Wu, J. and Li, G. (2022) Least absolute deviations estimation for nonstationary vector autoregressive time series models with pure unit roots. *Statistics and Its Interface*, to appear.
- [6] Wang, D., Zheng, Y., Lian, H. and Li, G. (2022). High-dimensional vector autoregressive time series modeling via tensor decomposition. *Journal of the American Statistical Association*, 117, 1338–1356.
- [7] **Zheng, Y.** and Cheng, G. (2021). Finite time analysis of vector autoregressive models under linear restrictions. *Biometrika*, **108**, 469–489.

- [8] **Zheng, Y.**, Zhu, Q., Li, G. and Xiao, Z. (2018). Hybrid quantile regression estimation for time series models with conditional heteroscedasticity. *Journal of the Royal Statistical Society:* Series B, **80**, 975–993.
- [9] Zhu, Q., **Zheng**, **Y.**\*,<sup>†</sup> and Li, G. (2018). Linear double autoregression. *Journal of Econometrics*, **207**, 162–174.
- [10] **Zheng, Y.**, Li, W.K. and Li, G. (2018). A robust goodness-of-fit test for generalized autoregressive conditional heteroscedastic models. *Biometrika*, **105**, 73–89.
- [11] **Zheng, Y.**, Li, Y., Li, W.K. and Li, G. (2016). Diagnostic checking for Weibull autoregressive conditional duration models. In: Li, W.K., Stanford, D.A., Yu, H. (editors): *Advances in Time Series Methods and Applications: the A. Ian McLeod Festschrift*. Springer-Verlag, New York.
- [12] Zheng, Y., Li, Y. and Li, G. (2016). On Fréchet autoregressive conditional duration models, Journal of Statistical Planning and Inference, 175, 51–66.

## HONORS AND AWARDS

- Elected Member of the International Statistical Institute (ISI), Since 2022.
- Institute of Mathematical Statistics (IMS) New Researcher Travel Award, 2022.
- Excellence in Teaching Recognition, University of Connecticut, Fall 2019.
- University of Hong Kong:
  - Best Teaching Assistant Award, Fall 2013, Fall 2014, Fall 2016 & Spring 2017.
  - University Postgraduate Scholarship, 2013–2017.
  - University Undergraduate Research Fellowship & Excellent Poster Presentation Award, 2012.
  - Statistics & Actuarial Science Scholarship, 2011.
  - C.V. Starr Scholarship for Exchange Study, 2010.
  - University Summer Research Fellowship & Best Poster Presentation Award, 2010.

## **PRESENTATIONS**

## Selected Invited Conference Talks

- 1. The 22nd IMS Meeting of New Researchers in Statistics and Probability, George Mason University, August 2022.
- 2. The 5th International Conference on Econometrics & Statistics (EcoSta2022), Ryukoku University, Kyoto, Japan, *June 2022* (online).
- 3. The 35th New England Statistics Symposium (NESS2022), University of Connecticut, *May* 2022.
- 4. The 14th International Conference of the European Research Consortium for Informatics and Mathematics Working Group (ERCIM WG) on Computational and Methodological Statistics (CMStatistics 2021), King's College London, *Dec 2021* (online).
- 5. The 34th New England Statistics Symposium (NESS2021), University of Rhode Island, *Oct* 2021 (online).

- 6. ISBISKOCHI2020: International Virtual Conference on Advanced Statistical Techniques in Business and Industry, Cochin University of Science & Technology, India, *Dec 2020* (online).
- 7. The 1st International Conference on Econometrics & Statistics (EcoSta2017), Hong Kong University of Science and Technology, Hong Kong, *June 2017*.
- 8. The 6th International IMS-FIPS (Finance, Insurance, Probability and Statistics) Workshop, University of Alberta, Canada, *July 2016*.

## Selected Invited Departmental Seminars

- 9. SUNY Binghamton University, Department of Mathematics and Statistics, May 2022 (online).
- 10. Shanghai University of Finance and Economics, School of Statistics and Management, *Dec* 2021 (online).
- 11. University of Maryland, Department of Mathematics, Sep 2020 (online).
- 12. University of Missouri, Department of Statistics, Sep 2020 (online).
- 13. University of Connecticut, Department of Economics, Sep 2020 (online).
- 14. Boston College, Department of Economics, Dec 2019.
- 15. Indiana University-Purdue University Indianapolis, Department of Mathematics, Oct 2018.
- 16. University of Alberta, Department of Mathematical & Statistical Sciences, Feb 2017.

#### PROFESSIONAL ACTIVITIES AND SERVICES

## Professional Memberships and Service

- Elected member, International Statistical Institute
- Secretary/Treasurer, Business and Economic Statistics Section, American Statistical Association, elected for 2023-2024
- Chair, The 2022 New England Statistical Society (NESS) Student Poster Awards Committee
- Member, The 2021 NESS Student Paper Awards Committee & Student Poster Awards Committee
- Member, American Statistical Association
- Member, Institute of Mathematical Statistics
- Member, New England Statistical Society
- Member, Education committee of New England Statistical Society

#### Referee Service

- Annals of Statistics (x3)
- Canadian Journal of Statistics
- Communications in Statistics-Simulation and Computation (x2)
- Computational Statistics (x2)
- Contemporary Clinical Trials
- Economics Letters
- JMIR Public Health and Surveillance

- Journal of Business & Economic Statistics
- Journal of Data Science
- Journal of Econometrics (x2)
- Journal of Multivariate Analysis
- Journal of Statistical Computation and Simulation
- Journal of the American Statistical Association (x3)
- Journal of the Korean Statistical Society
- Journal of Time Series Analysis (x2)
- Open Health
- Quantitative Finance
- Sankhya
- Statistica Sinica (x5)
- Statistical Analysis and Data Mining (x2)
- Statistics and Its Interface

## Grant Proposal Reviewer

- Reviewer for the National Science Foundation (NSF)

#### Conference Service

- Organizer, invited session on "Modern Statistical Learning Methods for Dynamic Models."
   2022 Joint Statistical Meetings, Business and Economic Statistics Section.
- Organizer, invited session on "New Advances in High-dimensional Time Series Analysis." The International Chinese Statistical Association (ICSA) Applied Statistics Symposium, Sep 2021.
- Organizer, invited session on "New Advances in Time Series Analysis." The 63rd
   International Statistical Institute (ISI) World Statistics Congress 2021, July 2021.
- Organizing committee. The Pfizer/ASA/UConn Distinguished Statistician Series, Since 2019.
- Organizer, invited session on "High Dimensional Dependent Data Analysis." The 33rd New England Statistics Symposium, University of Connecticut, May 2019.

#### Department Service

- Member, Committee on Colloquium, 2019-.
- Member, Committee on Alumni and Friends Receptions at JSM or other major conferences, 2019-.
- Member, Committee on Makuch Distinguished Lecture Series, 2019–.
- Member, Committee on Library/Tech Reports, 2019-.

#### **TEACHING**

University of Connecticut:

- STAT 3675Q Statistical Computing (4 cr., undergraduate level; Spring 2022).
- STAT 4825/5825 Applied Time Series (3 cr., undergraduate and graduate levels; Fall 2021 & 2022).
- STAT/BIST 5515 Design of Experiments (3 cr., graduate level; Fall 2019–2022).

- STAT/BIST 5815 Longitudinal Data Analysis (3 cr., graduate level; Spring 2020 & 2021).

## Purdue University:

– STAT 511 Statistical Methods (3 cr., undergraduate level; Spring & Summer 2019).