Zhentao Shi

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  Shatin, New Territories, Hong Kong SAR, China
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Positions

- Associate Professor, the Chinese University of Hong Kong, 2022—
  - Department of Economics
  - Department of Decisions, Operations and Technology (by courtesy)
- Associate Director, Economic Data Laboratory at CUHK Shenzhen Research Institute, 2023—
- Co-Director, Big Data and the Digital Economy Program of the Lau Chor Tak Institute of Global Economics and Finance, the Chinese University of Hong Kong, 2021—

Past Positions

- Associate Professor, Georgia Institute of Technology (Atlanta, GA), 2021—2022
- Associate Professor, the Chinese University of Hong Kong, 2020—2021
- Assistant Professor, the Chinese University of Hong Kong, 2014—2020

Degrees

- Ph.D., Economics, Yale University, 2014
  - Committee: Peter C.B. Phillips (chair), Donald W.K. Andrews, Yuichi Kitamura
- M.A., Economics, Peking University, 2008
- B.A., Finance, Zhejiang University, 2005

Fields of Concentration

- Econometric Theory (machine learning)

Publications

"#" marks supervised postgraduate students

- #Ziwei Mei and Zhentao Shi (2024): "On LASSO for High Dimensional Predictive Regression," forthcoming at *Journal of Econometrics*.

- #Ziwei Mei, Peter C.B. Phillips and Zhentao Shi (2024): "Boosted HP Filter Is More General Than You Think," forthcoming at *Journal of Applied Econometrics*.

- Zhentao Shi, Liangjun Su and Tian Xie (2024): "L2-Relaxation: With Applications to Forecast Combination and Portfolio Analysis," *Review of Economics and Statistics*.

- Jinyuan Chang, Zhentao Shi and Jia Zhang (2023): "Culling the Herd of Moments with Penalized Empirical Likelihood," *Journal of Business & Economic Statistics*, 41, 791-805.

- Zhentao Shi and #Jingyi Huang (2023): "Forward-Selected Panel Data Approach for Program Evaluation," *Journal of Econometrics*, 234, 512-535.

- Wei Lin, Zhentao Shi, #Yishu Wang and #Ting Hin Yan (2023): "Unfolding Beijing in a Hedonic Way," *Computational Economics*, 61, 317–340.

- Cheng Hsiao, Zhentao Shi and Qiankun Zhou (2022): "Transformed Estimation for Panel Interactive Effects Models," *Journal of Business & Economic Statistics*, 40(4), 1831-1848.

- Ji Hyung Lee, Zhentao Shi and #Zhan Gao (2022): "On LASSO for Predictive Regression," *Journal of Econometrics*, 229(2), 322-340.

- Stephen L. Ross and Zhentao Shi (2022): "Measuring Social Interaction Effects when Instruments Are Weak," *Journal of Business & Economic Statistics*, 40:3, 995-1006.

- Peter C.B. Phillips and Zhentao Shi (2021): "Boosting: Why You Can Use the HP Filter," *International Economic Review*, 62(2), 521-570.

- #Kayan Cheng, Naijing Huang and Zhentao Shi (2021): "Survay-Based Forecasting: To Average or Not To Average," in Vladik Kreinovich, Songsak Sriboonchitta, Woraphon Yamaka (eds.), *Studies in Computational Intelligence: Behavioral Predictive Modeling in Economics*, vol. 897, pp 87-104, Springer-Verlag.

- #Zhan Gao and Zhentao Shi (2021): "Implementing Convex Optimization in R: Two Econometric Examples," *Computational Economics*, 58, 1127-1135.

- Zhentao Shi and Huanhuan Zheng (2018): "Structural Estimation of Behavioral Heterogeneity," *Journal of Applied Econometrics*, 33(5), 690-707.

- Liangjun Su, Zhentao Shi and Peter C.B. Phillips (2016): "Identifying Latent Structures in Panel Data," *Econometrica*, 84(6), 2215-2264.

- Zhentao Shi (2016): "Econometric Estimation with High-Dimensional Moment Equalities," *Journal of Econometrics*, 195, 104-119.

- Zhentao Shi (2016): "Estimation of Sparse Structural Parameters with Many Endogenous Variables," *Econometric Reviews*, 35(8-10): 1582-1608.

- James Chu, Liping Lu and Zhentao Shi (2009): "Pitfalls in Market Timing Test," *Economic Letters*, 103(3), 123–126.

- Yuefei Zhang, Zhentao Shi, and Yaogguang Chen (2006): [in Chinese] "A Comparative Research on the Efficiency of China Mainland and Hong Kong Stock Markets," *Journal of Financial Research*, 6, 33-40.
- Liuyong Yang and Zhentao Shi (2004): [in Chinese] "An Analysis of Long-run Gold Price Determinants," *Journal of Statistical Research*, 6 (2), 21-24.

Working Papers

- "Economic Forecasts Using Many Noises," with Yuan Liao, Xinjie Ma, and Andreas Neuhierl, 2023.
- "Nickell Bias in Panel Local Projection," with #Ziwei Mei and Liugang Sheng, 2023.
- "Forecast Combination in Cryptocurrency Realized Volatility," with Yue Qiu, Yifan Wang and Tian Xie, 2022.
- "Nickell Meets Stambaugh: A Tale of Two Biases," with #Chengwang Liao and #Ziwei Mei, 2024.
- "Unveiling Dynamics in Climate Disaster Information Dissemination: A Variance Decomposition Network Approach," with Sebastien Box-Couillard, Yichun Fan, Yi Huang, Yilan Xu, and Siqi Zheng, 2024
- "Team Persistent or Team Transitory? Sectoral Linkage and Inflation Persistence," with Liugang Sheng and Steve Pak Yeung Wu, 2024.
- "Estimating Large Covariance Matrices with Unobserved Clustering," with Wenxin Huang, Yiru Wang and Baoning Zheng, 2024.
- "Asset Prices and China's Inflation Forecast: Based on Individual Stock Return and Machine Learning Algorithm," with Naijing Huang, Yuqing Qi and Jie Liu, 2022.
- "A Structural Network Pairwise Regression Model with Unobservable Heterogeneity," with Xi Chen and #Yapeng Zheng, 2023.

Grants Awarded

- **Principle investigator:** the Research Grants Council of Hong Kong No.14617423, "Generalizing L2-Relaxation," HKD 452,308, 2024-2026
- **Co-investigator:** the Research Grants Council of Hong Kong No. 14501821, "Identifying the Latent Pattern in Impulse Responses," HKD 479,993, 2022-2024
- **Principle investigator:** the Research Grants Council of Hong Kong No.14500118, "A Machine Learning Approach to Combination Weights," HKD 247,520, 2018-2021
- **Principle investigator:** the Research Grants Council of Hong Kong No.24614817, "Boosting Methods in Time Series and Panel Data," HKD 353,000, 2017-2019
- **Principle investigator:** Social Science Faculty, the Chinese University of Hong Kong Direct Grant No.4053728, "Constructing Counterfactual from Panel Data with Many Cross-Sectional Units," 2016-2018

- **Principle investigator:** Social Science Faculty, the Chinese University of Hong Kong Direct Grant No.4052081, "College Roommate Peer Effect on Academic Achievement", 2015-2017

Professional Services

- **Editorial Board**: China Finance Review International
- **External reviewer**: The Chinese University of Hong Kong (Shenzhen, China), Central University of Finance and Economics (Beijing, China), Research Grants Council of Hong Kong
- **Session organizer**: International Conference on Econometrics and Statistics, 2018
- **Scientific committee**: International Association of Applied Econometrics Conference, 2017; 15th Annual Society of Financial Econometrics (SoFiE) Conference, 2023; 16th Annual Society of Financial Econometrics (SoFiE) Conference, 2024; International Association of Applied Econometrics Conference, 2024
- **Referee** for *Econometrica*, *Review of Economic Studies*, *Journal of the Royal Statistical Society (Series B)*, *Journal of the American Statistical Association*, *Review of Economics and Statistics*, *International Economic Review*, *Journal of Econometrics*, *Econometric Theory*, *Journal of Business and Economic Statistics*, *Econometric Journal*, *Journal of Financial Econometrics*, *Econometric Review*, *Journal of Economic Dynamics and Control*, *Computational Economics*, *International Journal of Forecasting*, *Journal of Time Series Analysis*, *Journal of Multivariate Analysis*, *Journal of Statistical Planning and Inference*, *China Economic Review*, *Empirical Economics*, *Journal of Business Cycle Research*, *Journal of Productivity Analysis*, *Macroeconomic Dynamics*, *Studies in Nonlinear Dynamics & Econometrics*, *Korea Economic Review*

Supervision

- **Ph.D.**
  - Jingyi Huang (2018, Barclays Capital Asia Limited)
  - Yishu Wang (in progress)
  - Ziwei Mei (in progress)
  - Chengwang Liao (in progress)
- **M.Phil.**
  - Hongqi Chen (2017, Ph.D. program at University of Illinois Urbana-Champaign)
  - Zhan Gao (2018, Ph.D. program at University of Southern California)
  - Jinan Lin (2018, Ph.D. program at University of California Irvine)
  - Yang Chen (2019, Ph.D. program at Chinese University of Hong Kong)
  - Ka Yan Cheng (2021, Ph.D. program at Emory University)
- **Full-time Research Assistants**
  - Shu Shen (2024, Ph.D. program at Chinese University of Hong Kong)
  - Ji Pan (2024, in progress)
- **Part-time Research Assistants**
  - Zhan Gao (2018, M.Phil. program at Chinese University of Hong Kong)

  - Cheuk Hei Yip (2019, MSc program at London School of Economics and Political Science)
  - Ka Yan Cheng (2019, M.Phil. program at Chinese University of Hong Kong)
  - Qiyu Dai (2023, M.Phil. program at Chinese University of Hong Kong)

Invited Talks

- 2023: University of Cambridge, University of Oxford, Peking University, Tsinghua University
- 2022: London School of Economics and Political Science, Macquarie University, University of California Riverside
- 2021: University of Illinois, Emory University, Hong Kong University of Science and Technology, University of Wisconsin, Tsinghua University
- 2020: Georgia Institute of Technology, City University of Hong Kong
- 2019: Michigan State University, University of Maryland, Texas A&M University, Rice University, Zhejiang University, Yonsei University, Shandong University
- 2018: Fudan University, Shanghai University of Finance and Economics, the Chinese University of Hong Kong (Shenzhen)
- 2017: Univeristy of Illinois, Korea University, Xiamen University, Hong Kong Baptist University
- 2016: Academic Sinica (Taipei), Shanghai University of Finance and Economics
- 2015: Zhejiang University, University of Hong Kong
- 2014: Rutgers University, Toulouse School of Economics, Michigan State University, Peking University, the Chinese University of Hong Kong