

# Yu Bai

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## Current Position

Research Fellow (Level B, Step 6), Department of Econometrics and Business Statistics, Monash University.

## Past Position

Research Fellow, Department of Economics, Bocconi University, January - August 2022.

## Education

PhD in Economics and Finance, Bocconi University, 2022.

M.A. in Economics, Huazhong University of Science & Technology, 2016.

B.A. in Management, Shanxi University of Finance and Economics, 2012.

## Research Interests

Econometrics; Forecasting; Applied Macroeconomics; Financial Econometrics

## Working Papers

1. Optimal forecasting under parameter instability, 2023. *Job Market Paper* [[pdf](#)] [[Slides](#)] [[Link to video presentation](#)]
2. Local GMM estimation for nonparametric time-varying coefficient moment condition models, 2023. *Submitted* [[pdf](#)]

## Publications

1. Mean group instrumental variable estimation of time-varying large heterogeneous panels with endogenous regressors, with G. Kapetanios and M. Marcellino, forthcoming in the *Econometrics and Statistics*. [[link](#)]
2. Macroeconomic Forecasting in a Multi-country Context, joint with A. Carriero, T. E. Clark and M. Marcellino, *Journal of Applied Econometrics*, 37(6), 1230-1255, 2022. [[link](#)]
3. A Monte Carlo comparison of GMM and QMLE estimators for short dynamic panel data models with spatial errors, joint with Shaofu Zhou and Zhaoyuan Fan, *Journal of Statistical Computation and Simulation*, 88(2), 376-409, 2018. [[link](#)]

## Work in Progress

1. Forecasting with hierarchical factor augmented regression models, with Y. Mao and B. Peng. [\[link to notes\]](#)
2. A stochastic volatility in mean multivariate autoregressive index model, with B. Peng and W. Yao.

## Research Grants

2020.9-2022.8. MIUR, "Hi-Di NET. Econometric Analysis of High Dimensional Models with Network Structures in Macroeconomics and Finance".

## Research Experiences

Research Assistant for Prof. M. Marcellino, Multiple times

- Provide and check existing Matlab code for large dimensional macroeconomic forecasting models
- Provide Matlab code to estimate proxy VAR models

## Teaching Experiences

Instructor:

- Econometrics III, Bocconi University, Spring 2020, 2021, 2022. [\[link to teaching evaluation\]](#)

Teaching assistant:

- Financial Econometrics, Monash University, Semester 1 2023. [\[link to teaching evaluation\]](#)
- Econometrics, Bocconi University, Spring 2019, 2020, 2021, 2022.
- Time Series Analysis, Huazhong University of Science & Technology, Spring 2014, 2015.

## Professional Services

Referee for: Journal of Time Series Econometrics, Journal of Forecasting, Australian & New Zealand Journal of Statistics.

## Conference Presentations

2023

- The TSF2023 Symposium, Sydney, November 20-21 (*scheduled*)
- 2023 Econometric Society Australasian Meeting, Sydney, August 7-10
- SETA 2023, Singapore, July 7-8
- 2023 IAAE Annual Conference, Oslo, June 27-30

2022

- 7th Continuing Education in Macroeconometrics workshop, Melbourne, November 7-8

- The TSF2022 Symposium, Sydney, December 1-2

2021 (Virtual)

- CMStatistics 2021, London, December 18-20
- 2021 IAAE Annual Conference, June 22-25
- Dongbei University of Finance and Economics, June 18
- 2021 North American Summer Meeting of the Econometric Society, June 10-13.

2020

- Capital University of Economics and Business, November 6 (Virtual)
- The Econometric Society World Congress, August 17-21 (Virtual)
- Strathclyde Business School, Brown Bag Seminar, January 30.

2019

- 2019 Asian Meeting of the Econometric Society, Xiamen, China, June 14-16.
- 25th International Panel Data Conference, Vilnius, Lithuania, July 4-5.

## Honors and Awards

Bocconi PhD fellowship, 2016-2020

## References

**Massimiliano Marcellino** (PhD advisor)  
Professor of Econometrics  
Department of Economics  
Università Bocconi  
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**Shuping Shi**  
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