CONG WANG

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PROFILE SUMMARY

Econometrician specializing in statistical theory, econometric modeling, and advanced machine learning methods, with expertise in risk management, model validation, and quantitative analysis, proficient in Python, R, SQL, LaTeX, and Power BI.

EDUCATION

9.2021 – 5.2025 **University of Rome La Sapienza**, Rome, Italy

(Expected) PhD in Economics

Research interests: Econometrics, Causal Inference, Machine Learning

PhD Thesis: Essays in Causal Inference Methods Designed for Financial Economics.

9.2018 – 6.2020 HSE University, St. Petersburg, Russia

MSc in Finance

Master Thesis: *Bank's off-balance-sheet activities and its profitability.*

9.2012 – 6.2016 **Shenyang Ligong University**, Shenyang, China

BSc in Engineering

ACADEMIC EXPERIENCE

Visiting PhD Researcher at University of California, Los Angeles (**UCLA**, Mar 2023 – Sep 2023); Summer School at Barcelona School of Economics (**BSE**, Jun 2022 – Jul 2022); QTEM Programme at University of Amsterdam (**UvA**, Sep 2019 – Feb 2020);

PUBLICATIONS

Job Market Paper

Counterfactual and Synthetic Control Method: Causal Inference with Instrumented Principal Component Analysis. --- Paper | Code | Slides

<Presented at 2024 European Winter Meeting of the Econometric Society>

Summary: We propose a novel causal inference method, Instrumented Principal Component Analysis (IPCA), within the counterfactual and synthetic control framework. IPCA instruments factor loadings with predictive covariates, capturing time-varying dynamics for improved economic interpretation. By transforming covariates via a matrix Γ , it reduces dimensionality and enhances model's performance. Simulations demonstrate reduced bias in handling unobserved covariates compared to existing methods. Applied to Brexit's impact on UK foreign direct investment, IPCA provides robust insights.

Published Paper

Wang, C., 2024. Stock return prediction with multiple measures using neural network models. *Financial Innovation*, 10(1), p.72. (SCI Q1, Journal Impact Factor 6.9) --- Paper | Code

Working Paper

Wang, C., 2023. Firms' Carbon Emissions and Stock Returns. *Available at SSRN 4582276*. --- Paper | Code

PROFESSIONAL EXPERIENCE

4.2024 - Present **European Stability Mechanism**, Chief Economist Department, Luxembourg

Financial Sector Analyst

- Training course on SVAR and DSGE modelling with RISE Toolbox.
- Using Python optimized algorithm for Bank Viability Index (BVI) with state-ofart machine learning methods, evaluate financial stability across profitability, asset structure, asset quality, capital adequacy, and funding & liquidity metrics in major Euro Area banks.
- Build early warning system with predictive models to monitor loan performances and identify early signals of deterioration, such as transitions to Stage 3, optimized risk detection processes.
- Integrating econometric models (time series analysis) and data visualization techniques (with Power BI) designed advanced analytical packages and dashboards analyzing geo-economic fragmentation, bank-sovereign nexus, capital market union, etc.
- Using Python, SQL, LaTeX, and statistical tools to automate reporting workflows and analyze large datasets streamlined automation and analytics.
- Wrote monitor stories about stress test, Basel III reform, CRR, ESG assessment, etc. Collaborated with relevant authorities including EBA, SSM, ECB, SRB, etc.
- Provided market intelligence and financial sector analysis with Eikon Refinitiv and Bloomberg Terminal, focusing on stock price movements, company news, regulation changes, yield curves, and CDS pricing for Euro Area banks.

3.2023 – 9.2023 **University of California Los Angeles (UCLA**), Department of Economics, LA, USA *Visiting Researcher*

- Conducted econometric and statistical training and research, focusing on advanced methods for identifying and quantifying causal relationships in economics and social science, developed new casual inference method.
- Collaborated with faculty on joint research projects, contributed to mathematic model building and validation, contributed to data collection, cleaning, visualization, and simulation analysis.

7.2020 – 9.2021 **China Life Asset Management**, Market Research Division, Guangzhou China *Market Analyst*

- Assisted sector and company reports, communicating analysis to internal stakeholders and external clients, driving informed investment decisions.
- Led the development of a data visualization tool that improved reporting efficiency, enabling faster and more accurate analysis for the team.

SCHOLARSHIPS & AWARDS

2022	University of Rome International Mobility Fund
2021	University of Rome fully founded Ph.D. Scholarship
2020	QTEM Honoured Graduate Diploma
2019	HSE University International Mobility Fund
2018	HSE University Scholarship

CONFERNCE & WORKSHOP

2024	European Winter Meeting of the Econometric Society (16-18 Dec, Palma de Mallorca, Spain), Central Bank Research Association (CEBRA) Conference (19 Nov,
	Luxembourg), ESM Policy Conference (27 Nov, Luxembourg), 12th IEA Workshop in
	Econometrics and Empirical Economics (5-6 Sep, Bertinoro, Italy), IMF Financial
	Programming and Policy Workshop (14-15 Jun, Luxembourg).
2023	Climate and the Environment Mini-Conference (20 Aug, Los Angeles, USA), North
	America Summer Meeting of the Econometric Society (22-25 Jun, Los Angeles,
	USA), CCPR Difference-in-Differences Mini-Conference (20 May, Los Angeles, USA).
2022	Empirical Tools/Applications in Banking and Macro-Finance (28 Jul, Barcelona,
	Spain), Innovation, Growth, and Production. Method and Data Analysis (18-21 May,
	Rome, Italy).

SKILLS

Programming Language: Python (Expert), R (Advanced), MATLAB (Advanced)

Data Visualization: Power BI (Expert), Tableau (Advanced)

Data Management: SQL (Expert)

Data Terminals: Bloomberg terminal (Expert), Refinitiv Eikon (Expert) **Microsoft Office:** Excel (Expert), Word (Expert), PowerPoint (Expert)

Human Language: Chinese (Native), English (Advanced), Russian (Advanced)

Others: LaTeX (Expert), Git (Expert)

REFERENCES

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Paolo Fioretti