Dr. Feng Li

#### **Personal Information**

#### **Position**

2024 July - now Associate Professor Guanghua School of Management, Peking University, Beijing 100871, China

#### Past Appointments

2020 November – 2024 June Associate Professor School of Statistics and Mathematics, Central University of Finance and

Economics, Beijing 102206, China

2016 July – 2022 December Associate Dean School of Statistics and Mathematics, Central University of Finance and

Economics, Beijing 102206, China

2013 September – 2020 October Assistant Professor School of Statistics and Mathematics, Central University of Finance and

Economics, Beijing 102206, China

#### **Contacts**

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## Education

2008–2013 Ph.D., Statistics, Stockholm University, Sweden.

Supervisor: Prof. Mattias Villani.

Thesis: Bayesian Modeling of Conditional Densities.

(won the 2014 Cramér Prize for the best Ph.D. thesis in Statistics and Mathematical Statistics, awarded by

the Swedish Statistics Association)

Thesis opponent: Prof. Sylvia Frühwirth-Schnatter, Vienna University of Economics and Business (WU)

Assistant supervisor: Prof. Daniel Thorburn.

2007–2008 Master, Statistics, Dalarna University, Sweden.
 2003–2007 Bachelor, Statistics, Renmin University of China.

#### **Research Interests**

Bayesian Statistics o Econometrics & Forecasting o Machine Learning o Distributed Statistical Computing

#### Grants

- Evaluation on Sports Betting Market. Funded by the Hong Kong Jockey Club (Beijing) (2024+). Principal Investigator, CNY 670,000.
- Hierarchical economic forecasting from a global modeling perspective. Funded by the National Social Science Fund of China (2022+).
   Principal Investigator, CNY 200,000.
- Complex Time Series Forecasting for E-commerce. Funded by Alibaba Innovative Research Program (2021 2023). Principal investigator, CNY 470,000.
- Development of the Methodologies of Objective Performance Criteria Based Single-Armed Trials for The Clinical Evaluation of Traditional Chinese Medicine. Funded by National Natural Science Foundation of China (2020+). Major Investigator, CNY 150,000.
- Efficient Bayesian Flexible Density Methods with High Dimensional Financial Data. Funded by **National Natural Science Foundation** of China (2016 2019). Principal investigator, CNY 200,000.
- Bayesian Multivariate Density Estimation Methods for Complex Data. Funded by **Ministry of Education**, **China** (2014 2016). **Principal investigator**, **CNY 50,000**.

# **Publications**

(Complete publication list available at https://scholar.google.com/citations?user=IN2QMXYAAAAJ)

[37] Yuan Gao, Rui Pan, Feng Li, Riquan Zhang & Hansheng Wang (2024). "Grid Point Approximation for Distributed Nonparametric Smoothing and Prediction". *Journal of Computational and Graphical Statistics* (In Press), pp. 1–29. DOI: 10.1080/10618600. 2024.2409817.

Revised on October 31, 2024.

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[36] Yuqin Huang, Feng Li, Tong Li & Tse-Chun Lin (2024). "Local Information Advantage and Stock Returns: Evidence from Social Media". *Contemporary Accounting Research* 41 (2), pp. 1089–1119. DOI: 10.1111/1911-3846.12935.

- [35] Feng Li (2024). "Book Review of Causality: Models, Reasoning, and Inference, Judea Pearl. (Second Edition). (2009)". *International Journal of Forecasting* 40 (1), pp. 423–425. DOI: 10.1016/j.ijforecast.2023.08.005.
- [34] Han Wang, Wen Wang, Feng Li, Yanfei Kang & Han Li (2024). "Catastrophe Duration and Loss Prediction via Natural Language Processing". *Variance* Forthcoming.
- [33] Li Li, Yanfei Kang & Feng Li (2023a). "Bayesian Forecast Combination Using Time-Varying Features". *International Journal of Forecasting* 39 (3), pp. 1287–1302. DOI: 10.1016/j.ijforecast.2022.06.002.
- [32] Li Li, Yanfei Kang, Fotios Petropoulos & Feng Li (2023b). "Feature-Based Intermittent Demand Forecast Combinations: Accuracy and Inventory Implications". *International Journal of Production Research* 61 (22), pp. 7557–7572. DOI: 10 . 1080/00207543. 2022.2153941.
- [31] Li Li, Feng Li & Yanfei Kang (2023c). "Forecasting Large Collections of Time Series: Feature-Based Methods". In: *Forecasting with Artificial Intelligence: Theory and Applications*. Ed. by Mohsen Hamoudia, Spyros Makridakis & Evangelos Spiliotis. Cham: Springer Nature Switzerland, pp. 251–276. ISBN: 978-3-031-35879-1. DOI: 10.1007/978-3-031-35879-1\_10.
- [30] Yinuo Ren, Feng Li, Yanfei Kang & Jue Wang (2023). "Infinite Forecast Combinations Based on Dirichlet Process". In: 2023 IEEE International Conference on Data Mining Workshops (ICDMW). 2023 IEEE International Conference on Data Mining Workshops (ICDMW), pp. 579–587. DOI: 10.1109/ICDMW60847.2023.00081.
- [29] Xiaoqian Wang, Rob J. Hyndman, Feng Li & Yanfei Kang (2023a). "Forecast Combinations: An over 50-Year Review". *International Journal of Forecasting* 39 (4), pp. 1518–1547. DOI: 10.1016/j.ijforecast.2022.11.005.
- [28] Xiaoqian Wang, Yanfei Kang, Rob J. Hyndman & Feng Li (2023b). "Distributed ARIMA Models for Ultra-Long Time Series". *International Journal of Forecasting* 39 (3), pp. 1163–1184. DOI: 10.1016/j.ijforecast.2022.05.001.
- [27] Bohan Zhang, Yanfei Kang, Anastasios Panagiotelis & Feng Li (2023a). "Optimal Reconciliation with Immutable Forecasts". *European Journal of Operational Research* 308 (1), pp. 650–660. DOI: 10.1016/j.ejor.2022.11.035.
- [26] Guanyu Zhang, Feng Li & Yanfei Kang (2023b). "Probabilistic Forecast Reconciliation with Kullback-Leibler Divergence Regularization". In: 2023 IEEE International Conference on Data Mining Workshops (ICDMW). 2023 IEEE International Conference on Data Mining Workshops (ICDMW), pp. 601–607. DOI: 10.1109/ICDMW60847.2023.00084.
- [25] Matthias Anderer & Feng Li (2022). "Hierarchical Forecasting with a Top-down Alignment of Independent-Level Forecasts". *International Journal of Forecasting* 38 (4), pp. 1405–1414. DOI: 10.1016/j.ijforecast.2021.12.015.
- [24] Yanfei Kang, Wei Cao, Fotios Petropoulos & Feng Li (2022). "Forecast with Forecasts: Diversity Matters". European Journal of Operational Research 301 (1), pp. 180–190. DOI: 10.1016/j.ejor.2021.10.024.
- [23] Rui Pan, Tunan Ren, Baishan Guo, Feng Li, Guodong Li & Hansheng Wang (2022). "A Note on Distributed Quantile Regression by Pilot Sampling and One-Step Updating". *Journal of Business & Economic Statistics* 40 (4), pp. 1691–1700. DOI: 10.1080/07350015. 2021.1961789.
- [22] Fotios Petropoulos, Daniele Apiletti, Vassilios Assimakopoulos, Mohamed Zied Babai, Devon K. Barrow, Souhaib Ben Taieb, Christoph Bergmeir, Ricardo J. Bessa, Jakub Bijak, John E. Boylan, Jethro Browell, Claudio Carnevale, Jennifer L. Castle, Pasquale Cirillo, Michael P. Clements, Clara Cordeiro, Fernando Luiz Cyrino Oliveira, Shari De Baets, Alexander Dokumentov, Joanne Ellison, Piotr Fiszeder, Philip Hans Franses, David T. Frazier, Michael Gilliland, M. Sinan Gönül, Paul Goodwin, Luigi Grossi, Yael Grushka-Cockayne, Mariangela Guidolin, Massimo Guidolin, Ulrich Gunter, Xiaojia Guo, Renato Guseo, Nigel Harvey, David F. Hendry, Ross Hollyman, Tim Januschowski, Jooyoung Jeon, Victor Richmond R. Jose, Yanfei Kang, Anne B. Koehler, Stephan Kolassa, Nikolaos Kourentzes, Sonia Leva, Feng Li, Konstantia Litsiou, Spyros Makridakis, Gael M. Martin, Andrew B. Martinez, Sheik Meeran, Theodore Modis, Konstantinos Nikolopoulos, Dilek Önkal, Alessia Paccagnini, Anastasios Panagiotelis, Ioannis Panapakidis, Jose M. Pavía, Manuela Pedio, Diego J. Pedregal, Pierre Pinson, Patrícia Ramos, David E. Rapach, J. James Reade, Bahman Rostami-Tabar, Michał Rubaszek, Georgios Sermpinis, Han Lin Shang, Evangelos Spiliotis, Aris A. Syntetos, Priyanga Dilini Talagala, Thiyanga S. Talagala, Len Tashman, Dimitrios Thomakos, Thordis Thorarinsdottir, Ezio Todini, Juan Ramón Trapero Arenas, Xiaoqian Wang, Robert L. Winkler, Alisa Yusupova & Florian Ziel (2022). "Forecasting: Theory and Practice". *International Journal of Forecasting* 38 (3), pp. 705–871. DOI: 10.1016/j.ijforecast.2021.11.001.
- [21] Thiyanga S. Talagala, Feng Li & Yanfei Kang (2022). "FFORMPP: Feature-Based Forecast Model Performance Prediction". *International Journal of Forecasting* 38 (3), pp. 920–943. DOI: 10.1016/j.ijforecast.2021.07.002.

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[20] Xiaoqian Wang, Yanfei Kang, Fotios Petropoulos & Feng Li (2022a). "The Uncertainty Estimation of Feature-Based Forecast Combinations". *Journal of the Operational Research Society* 73 (5), pp. 979–993. DOI: 10.1080/01605682.2021.1880297.

- [19] Zhiru Wang, Yu Pang, Mingxin Gan, Martin Skitmore & Feng Li (2022b). "Escalator Accident Mechanism Analysis and Injury Prediction Approaches in Heavy Capacity Metro Rail Transit Stations". *Safety Science* 154, p. 105850. DOI: 10.1016/j.ssci.2022. 105850.
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- [16] Xuening Zhu, Feng Li & Hansheng Wang (2021). "Least-Square Approximation for a Distributed System". *Journal of Computational and Graphical Statistics* 30 (4), pp. 1004–1018. DOI: 10.1080/10618600.2021.1923517.
- [15] Chengcheng Hao, Feng Li & Dietrich von Rosen (2020). "A Bilinear Reduced Rank Model". In: *Contemporary Experimental Design, Multivariate Analysis and Data Mining*. Ed. by Jianqing Fan & Jianxin Pan. Springer Nature. DOI: 10.1007/978-3-030-46161-4\_21.
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- [12] Xixi Li, Yanfei Kang & Feng Li (2020). "Forecasting with Time Series Imaging". Expert Systems with Applications 160, p. 113680. DOI: 10.1016/j.eswa.2020.113680.
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- [10] 康雁飞&李丰 (2020b). 预测:方法与实践. 在线出版. URL: https://otexts.com/fppcn/.
- [9] Hannah M. Bailey, Yi Zuo, Feng Li, Jae Min, Krishna Vaddiparti, Mattia Prosperi, Jeffrey Fagan, Sandro Galea & Bindu Kalesan (2019). "Changes in Patterns of Mortality Rates and Years of Life Lost Due to Firearms in the United States, 1999 to 2016: A Joinpoint Analysis". PLOS ONE 14 (11), e0225223. DOI: 10.1371/journal.pone.0225223.
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- [7] Feng Li & Yanfei Kang (2018). "Improving Forecasting Performance Using Covariate-Dependent Copula Models". *International Journal of Forecasting* 34 (3), pp. 456–476. DOI: 10.1016/j.ijforecast.2018.01.007.
- [6] Elizabeth C. Pino, Yi Zuo, Camila Maciel De Olivera, Shruthi Mahalingaiah, Olivia Keiser, Lynn L. Moore, Feng Li, Ramachandran S. Vasan, Barbara E. Corkey & Bindu Kalesan (2018). "Cohort Profile: The MULTI σ'Udy Diabetes rEsearch (MULTITUDE) Consortium". *BMJ Open* 8 (5), e020640. DOI: 10.1136/bmjopen-2017-020640.
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- [4] Feng Li (2013). "Bayesian Modeling of Conditional Densities". Department of Statistics, Stockholm University. ISBN: 978-91-7447-665-1. URL: http://urn.kb.se/resolve?urn=urn:nbn:se:su:diva-89426.
- [3] Feng Li & Mattias Villani (2013). "Efficient Bayesian Multivariate Surface Regression". *Scandinavian Journal of Statistics* 40 (4), pp. 706–723. DOI: 10.1111/sjos.12022.
- [2] Feng Li, Mattias Villani & Robert Kohn (2011). "Modelling Conditional Densities Using Finite Smooth Mixtures". In: *Mixtures: Estimation and Applications*. John Wiley & Sons, pp. 123–144. ISBN: 978-1-119-99567-8. DOI: 10.1002/9781119995678. ch6.
- [1] Feng Li, Mattias Villani & Robert Kohn (2010). "Flexible Modeling of Conditional Distributions Using Smooth Mixtures of Asymmetric Student t Densities". *Journal of Statistical Planning and Inference* 140 (12), pp. 3638–3654. DOI: 10.1016/j.jspi.2010.04.031.

Feng Li Curriculum Vitæ

# Software

I develop open-source statistical and machine learning software for large-scale data running on the Apache Spark distributed computing platform. Detailed software information is available at my code repository <a href="https://github.com/feng-li">https://github.com/feng-li</a>.

Package	Description	Language	Environment	Available On
gratis	Efficient algorithms for generating time series with diverse and con-	R	All	CRAN, GitHub
	trollable characteristics. (Selected in R Task View for Time Series).			
febama	Feature-based Bayesian Forecasting Model Averaging	R	All	GitHub
fide	Feature-based Intermittent DEmand forecasting	R	All	GitHub
fuma	Forecast uncertainty based on model averaging	R	All	GitHub
fformpp	Feature-based FORecast Model Performance Prediction	R	All	GitHub
dng	Distribution and Gradients for Skewed Distributions (Selected in R	R	All	CRAN, GitHub
	Task View for Probability Distributions)			
pyhts	A python package for hierarchical forecasting	Python	All	GitHub, PyPi
dlsa	Distributed Least Squares Approximation implemented with Apache	Python	Spark	GitHub
	Spark			
darima	Distributed ARIMA models implemented with Apache Spark	Python	Spark	GitHub
dqr	Distributed Quantile Regression by Pilot Sampling and One-Step	Python	Spark	GitHub
	Updating			
cdcopula	Covariate-dependent copula models	R	All	GitHub
movingknots	Efficient Bayesian Multivariate Surface Regression	R	All	GitHub
flutils	A collection of R functions which is required from my other packages	R	All	GitHub
GSM	Flexible Modeling of Conditional Distributions using Smooth Mix-	Matlab	All	GitHub
	tures of Asymmetric Student T Densities			

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### **Teaching**

As an educator in the field of Statistics, with a specific focus on Big Data and Artificial Intelligence, my teaching philosophy is rooted in the belief that education is a transformative process that goes beyond the mere transfer of knowledge. It is a dynamic and reciprocal exchange that empowers students to think critically, solve real-world problems, and become lifelong learners. In every year since 2013, student evaluations have given an average rating for my teaching above 95 out of 100.

Course		Credit	Place	Year
Big Data Computation and Forecasting		2	PKU	2025-
Distributed Storage and Computing		2	PKU	2020-2024
Statistical Computing		3	CUFE	2014-2024
Distributed Statistical Computing: I		3	CUFE	2014-2024
	U	3	CUFE	2020-2024
	G	3	CUEB	2020-2021
	G	3	RUC	2014-2019
Distributed Statistical Computing: II	U	3	CUFE	2021-2024
Python and Data Mining	MBA	2	CUFE	2021-2024
	G	2	CUFE	2015
Tools for Data Science	U	2	CUFE	2019-2023
Statistics Case Studies	G	3	CUFE	2017-2018
Bayesian Statistics*	G	2	CNU	2017
	G	2	CUFE	2013
	G	2	SU	2013
Programming with R*	U	2	LIU	2012
Statistical Software		2	CUFE	2014
Econometrics*		3	CUFE	2013-2015
Academic English in Statistics*		2	CUFE	2013-2016
Time Series Analysis*		2	CUFE	2015-2016
·	U	2	SU	2008-2013
Regression Analysis*	U	2	SU	2008-2013

(All course materials are available at https://feng.li/teaching/. Courses marked with \* are taught in English. U: undergraduate level, G: graduate level.)

#### Recent Presentations and Invited Talks

- The 23rd IEEE International Conference on Data Mining, December 1-4, 2023, Shanghai, China.
- The 9th International Forum on Statistics (RUC IFS 2023), July 14-15, 2023, Beijing, China.
- The 2023 ICSA China Conference, June 30 July 3, 2023, Sichuan, China.
- The 41st International Symposium on Forecasting, 27-28 June, 2021.
- The 2021 World Meeting of the International Society for Bayesian Analysis, July 2, 2021.
- The 40th International Symposium on Forecasting, Virtual. October 26, 2020.
- Twelfth International Conference on Monte Carlo Methods and Application (MCM 2019), Sydney, Australia, from July 8 to 12, 2019.
- 39th International Symposium on Forecasting, Thessaloniki, Greece 16-19 June 2019.
- ICSA Conference on Data Science, January 11-13, 2019, Xishuangbanna, China.
- School of Data Science, Fudan University, Oct 28-30, 2017, Shanghai, China
- International Symposium on Financial Engineering and Risk Management 2018, June 13, 2018, Shanghai, China.
- School of Data Science, Fudan University, Oct 28-30, 2017, Shanghai, China
- IMS-China International Conference on Statistics and Probability, June 28 July 1, 2017, Nanning, China.
- The 1st International Conference on Econometrics and Statistics, Hong Kong, 15-17 June 2017.
- The 2016 World Meeting of the International Society for Bayesian Analysis, Jun 13—17, 2016, Sardinia, Italy.
- IMS-China International Conference on Statistics and Probability, June 1-4, 2015, Kunming, China.
- International Symposium on Financial Engineering and Risk Management 2014, June 27, 2014, Beijing, China.
- Guanghua School of Management Peking University, Oct 14, 2013, Beijing, China
- The Stockholm University Forskardagarna, 2-3 Oct, 2013, Stockholm, Sweden.
- The 59th World Statistics Congress, August 25-29, 2013, Hong Kong.

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- The 2012 World Meeting of the International Society for Bayesian Analysis, Jun 25–29, 2012, Japan. Poster presentation.
- The third Linnaeus University Workshop in Stochastic Analysis and Applications, May 24–25, Växjö. Invited speaker.
- Seminar at Department of Energy and Technology, Swedish University of Agricultural Sciences, Apr 16, 2012, Sweden.
- Workshop on "Analysis of High-Dimensional Data", Jönköping International Business School, Feb 16–17, 2012, Sweden. Invited speaker.
- The LiU Seminar Series in Statistics and Mathematical Statistics, Linköping University, Oct 11, 2011, Sweden. Invited speaker.
- The 42nd Winter Conference in Statistics Incomplete data: semi-parametric and Bayesian methods, Mar 6–10, 2011, Sweden. Invited speaker.
- The 2010 World Meeting of the International Society for Bayesian Analysis, Jun 3-8, 2010, Spain. Poster presentation.
- Seminar at Department of statistics, Uppsala University, Sep 16, 2009, Sweden.

### Other Conferences & Activities

- Visiting Devision of Statistics, Department of Computer and Information Science, Linköping University, Sweden, Sep 1, 2011 Feb 29,2012.
- Intensive PhD course: "Introduction to Bayesian Analysis and MCMC, and, Hierarchical Modelling of Spatial and Temporal Data" by Alan Gelfand (Duke University) and Sujit Sahu (University of Southampton), June 7–10, 2011, University of Southampton, UK.
- Intensive PhD course: "Semi-Parametric Bayesian Inference in Econometrics" by Peter Rossi (University of Chicago), May 27–29, 2009, Erasmus University Rotterdam, The Netherlands.
- Conference "Modeling and Forecasting Economic and Financial Time Series with State Space models", Central Bank of Sweden, Oct 17–18, 2008.

#### **Awards**

- The 2014 Cramér Prize, Mar 2014.
- International Society for Bayesian Analysis junior travel award, Jun, 2012.
- Travel grant from The Knut and Alice Wallenberg Foundation, Aug, 2011, Sweden.
- Outstanding graduate student, honored by Beijing Municipal Education Commission, Jul, 2007, China.

### Computer Skills

- Skilled in GNU/Linux and have rich programming experience on large Linux CPU/GPU clusters with Hadoop/Spark.
- Proficient in R and Python and Matlab.
- Good at C/C++.

## **Conferences Organized**

- 2017: The 2017 Beijing Workshop on Forecasting.
- 2016: Annual Conference of Chinese Association of Quantitative Economics.
- 2014: Executive secretary of International Symposium on Financial Engineering and Risk Management 2014.
- 2013: The Swedish Research Students Conference in Statistics.
- 2013: 2012–2013, PhD. Study Group, Department of Statistics, Stockholm University.

#### **Academic Services**

- Mentor, the United Nations Big Data Hackathon, 2022–2023.
- Peer reviewed for over 30 high-ranked journals in statistics, data science, medical statistics, and management. Full review records are available at https://orcid.org/0000-0002-4248-9778. Selected journals list below.
  - Omega The International Journal of Management Science
  - Pattern Recognition
  - Neurocomputing
  - Journal of Business and Economics Statistics
  - International Journal of Forecasting
  - Computational Statistics and Data Analysis
  - Information Sciences

## **Academic Visiting**

- 2014 Aug, Toronto University, Canada
- 2013 Oct, Stockholm University, Sweden
- 2011 Sep –2012 March, Linköping University, Sweden
- 2011 June, University of Southampton, UK
- 2009 May, Erasmus University Rotterdam, The Netherlands

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# Society Memberships

- Member, International Institute of Forecasters
- Member, American Statistical Association
- Member, International Society for Bayesian Analysis