CURRICULUM VITAE

Personal Data

Name:	Chen Zhou
Birth:	May 27, 1981, Qingdao, China
Nationality:	Chinese
Address:	Econometric Institute, ET-48 Erasmus University Rotterdam P.O. Box 1738 3000 DR, Rotterdam The Netherlands
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Employments

05/2019 – now	Professor of Mathematical Statistics and Risk Management Erasmus School of Economics, Erasmus University Rotterdam
11/2015 – now	Senior Economist, Economics and Research Division, De Nederlandsche Bank
12/2013 – now	Research Fellow, Tinbergen Institute
01/2016 – 04/2019	Associate Professor, Erasmus School of Economics, Erasmus University Rotterdam
10/2009 – 12/2015	Assistant Professor, Erasmus School of Economics, Erasmus University Rotterdam
09/2008 – 10/2015	Economist, Economics and Research Division, De Nederlandsche Bank

Education

09/2004 – 11/2008

Ph.D. in Economics, Erasmus University Rotterdam, The Netherlands
Supervised by Prof. dr. Laurens de Haan and Prof. dr. Casper de Vries

09/2001 – 07/2003

Master in Probability and Statistics, Peking University, Beijing, China

09/1997 – 07/2001

Bachelor in Probability and Statistics, Peking University, Beijing, China

Research Grant/Awards

1. EUR fellowship on the project “The evolution of tail risks in financial markets”, 150,000 euro, 2016-2019.
2. EUR fellowship on the project “Systemic Risk in the Financial System: Defined, Measured and Assessed”, 200,000 euro, 2010 – 2013.

3. William F. Sharp Best Paper Award, 5th International Finance and Banking Society conference, Nottingham, United Kingdom, June 26-28, 2013.
4. The 2010 EWG-EPA Best Young Researcher Award. EWG-EPA Conference on “Global Trends in the Efficiency and Risk Management of Financial Services”, Chania, Greece, July 2-4, 2010.

Professional activities

Editorial duty

Associate Editor of *Extremes*, 2015-

Scientific program committees

12th Extreme Value Analysis conference, 2021
10th Extreme Value Analysis conference, 2017
7th International Finance and Banking Society conference, 2015
6th International Finance and Banking Society conference, 2014
16th European Young Statistician Meeting, 2008

Organizing committees

Extreme TiDE seminar series (jointly with Juan-Juan Cai and John Einmahl)
10th Extreme Value Analysis conference, 2017

Publications

1. Qin, X. and Zhou C. (2021) Systemic risk allocation using the asymptotic marginal expected shortfall. ***Journal of Banking and Finance***, accepted.
2. Einmahl, J., Ferreira, A., de Haan, L., Neves, C. and Zhou, C. (2021) Spatial dependence and space-time trend in extreme events. ***Annals of Statistics***, accepted.
3. Oorschot, J. And Zhou, C. (2021) Tail dependence of OLS. ***Econometric Theory***, accepted.
4. Chen, L., Li, D. and Zhou, C. (2021) Distributed inference for extreme value index. ***Biometrika***, accepted.
5. Nolde N. and Zhou C. (2020) Extreme value analysis for financial risk management. ***Annual Review of Statistics and Its Application***, accepted.
6. Buecher A. and Zhou, C. (2020) A horse racing between the block maxima method and the peak-over-threshold approach. ***Statistical Science***, accepted.
7. Zhou C. (2020) Discussion on ‘Graphical models for extremes’ by Sebastian Engelke and Adrien Hitz. ***Journal of the Royal Statistical Society, Series B***, accepted.
8. Einmahl, J., Yang, F. and Zhou, C. (2020) Testing the multivariate regular variation model. ***Journal of Business and Economic Statistics***, accepted.
9. de Haan, L. and Zhou, C. (2020) Trend in extreme value indices, ***Journal of the American Statistical Association***, forthcoming.

10. Zhou, C. (2019) Book review: Risk Theory: A Heavy Tail Approach. ***Journal of the American Statistical Association***, **114**(527), 1424-1425.
11. van Oordt, M.R.C. and Zhou, C. (2019) Systemic Risk and Bank Business Models. ***Journal of Applied Econometrics***, **34**(3), 365-384.
12. van Oordt, M.R.C. and Zhou, C. (2019) Estimating systematic risk under extremely adverse market conditions. ***Journal of Financial Econometrics***, **17**(3), 432-461.
13. Leng, X., Peng, L., Wang, X. and Zhou, C. (2019) Endpoint estimation for observations with normal measurement errors. ***Extremes***, **22**(1), 77-96.
14. Xiao, X. and Zhou, C. (2018) The decomposition of jump risks in individual stock returns. ***Journal of Empirical Finance***, **47**, 207-228.
15. Zhou, C. (2018) Discussion on "Human life is unlimited - but short"' by Holger Rootzen and Dmitrii Zholud. ***Extremes***, **21**(3), 405-410.
16. Galati, G., Gorge, Z., Moessner, R. and Zhou, C. (2018) Deflation risk in the euro area and central bank credibility. ***Economics Letters***, **167**, 124-126.
17. Oesting, M., Schlather, M. and Zhou, C. (2018) Exact and fast simulation of max-stable processes on a compact set using the normalized spectral representation. ***Bernoulli***, **24**(2), 1497-1530.
18. van Oordt, M.R.C. and Zhou, C. (2018) Systemic risk of European banks: regulators and markets. In: *Macroprudential Policy and Practice*, 205-224, Edited by P. Mizen, M. Rubio and P. Turner. Cambridge University Press.
19. Zhou, C. (2017) Discussion on "Elicitability and backtesting: Perspectives for banking regulation". ***Annals of Applied Statistics***, **11**(4), 1888-1893.
20. Zhou, C. (2017) Book review: quantitative risk management: concepts, techniques and tools. ***Extremes***, **20**, 489-491.
21. de Haan, L., Mercadier, C. and Zhou, C. (2016) Adapting extreme value statistics to financial time series: dealing with bias and serial dependence. ***Finance and Stochastics***, **20**(2), 321-354.
22. Einmahl, J., de Haan, L. and Zhou, C. (2016) Statistics of heteroskadastic extremes. ***Journal of the Royal Statistical Society, Series B***, **78**(1), 31-51.
23. van Oordt, M.R.C. and Zhou, C. (2016) Systematic tail risk, ***Journal of Financial and Quantitative Analysis***, **51**(2), 685-705.
24. Cai, J., Einmahl, J., de Haan, L. and Zhou, C. (2015) Estimation of the marginal expected shortfall: the mean when a related variable is extreme. ***Journal of the Royal Statistical Society, Series B***, **77**(2), 417-442.
25. Sun, P. and Zhou, C. (2014) Diagnosing the Distribution of GARCH Innovations. ***Journal of Empirical Finance***, **29**, 287-303.

26. Zhou, C. (2013) The impact of imposing capital requirement on systemic risk. ***Journal of Financial Stability***, **9**(3), 320-329.
27. de Haan, L., de Vries, C.G. and Zhou, C. (2013) The number of active bidders in internet auctions. ***Journal of Economic Theory***, **148**(4), 1726-1736.
28. Cai, J., de Haan, L. and Zhou, C. (2012) Bias correction in extreme value statistics with index around zero. ***Extremes***, **16**(2), 173-201.
29. van Oordt, M.R.C. and Zhou, C. (2012) The simple econometrics of tail dependence. ***Economics Letter***, **116**(3), 371-373.
30. Huurman, C., Ravazzolo, F. and Zhou, C. (2012) The power of weather. ***Computational Statistics and Data Analysis***, **56**(11), 3793-3807.
31. de Haan, L., Ferreira, A. and Zhou, C. (2012) Exceedance probability of the integral of a stochastic process. ***Journal of Multivariate Analysis***, **105**(1), 241-257.
32. de Haan, L. and Zhou, C. (2011) Extreme residual dependence for random vectors and processes. ***Advances in Applied Probability***, **43**(1), 217-242.
33. Galati, G., Poelhekke, S. and Zhou, C. (2011) Did the crisis affect inflation expectations? ***International Journal of Central Banking***, **7**(1), 167-208.
34. Zhou, C. (2010) Are banks too big to fail? Measuring systemic importance of financial institutions. ***International Journal of Central Banking***, **6**(4), 205-250.
35. Zhou, C. (2010) Dependence structure of risk factors and diversification effects. ***Insurance: Mathematics and Economics***, **46**(3), 531-540.
36. Zhou, C. (2010) The extent of the maximum likelihood estimator for the extreme value index. ***Journal of Multivariate Analysis***, **101**(4), 971-983.
37. de Haan, L., de Vries, C.G. and Zhou, C. (2009) The expected payoff to Internet auctions, ***Extremes***, **12**(3), 219-238.
38. Zhou, C. (2009) Existence and consistency of the maximum likelihood estimator for the extreme value index, ***Journal of Multivariate Analysis***, **100**(4), 794-815.
39. Zhou, C. (2008) A 2-step estimator of the extreme value index, ***Extremes***, **11**(3), 281-302.
40. Buishand, A., de Haan, L. and Zhou, C. (2008) On spatial extremes: with application to a rainfall problem, ***Annals of Applied Statistics*, 2**(2), 624-642.
41. de Haan L. and Zhou, C. (2008) On extreme value analysis of a spatial process. ***Revstat***, **6**(1), 71-81.
42. de Vries, C.G. and Zhou, C. (2006) Discussion of “Copulas: Tales and facts”, by Thomas Mikosch. ***Extremes***, **9**, 23-25.

Policy publications

Zhou C. and Tarashev N. (2013) Looking at the tail: price-based measure of systemic importance. ***BIS Quarterly Review***, June 2013. Bank for International Settlement.

Public opinion and media attention

1. Danielsson, J. and Zhou, C. Why risk is hard to measure? **VoXEU**, April 25, 2015. Based on the working paper "Why risk is so hard to measures?"
2. Tracy Alloway 'Capital requirements increase systemic risk' Discuss. **Financial Times Alphaville**, Aug 6, 2010. Based on the working paper "Why the micro-prudential regulation fails?"

Working Papers

1. de Haan, J., Jin, Z. and Zhou, C. (2019) *Micro-prudential regulation and banks' systemic risk*. DNB Working Paper No. **656**.
2. Heijmans, R. and Zhou, C. (2019) *Outlier detection in TARGET2 risk indicators*. DNB Working Paper No. **624**.
3. Schindelhauer, K. and Zhou, C. (2018) *Value-at-Risk prediction using option-implied risk measures*. DNB Working Paper, No. **613**. Submitted.
4. Cui, H., Tan, K.S., Yang, F. and Zhou, C. (2017) *Asymptotic analysis of portfolio diversification.* Submitted.
5. Muns, S. and Zhou, C. (2016) *The impact of bank size, capital structure and asset dependence on social welfare.* Working paper.
6. Xiao, X. and Zhou, C. (2016) *Entropy-based implied volatility and its information content*. DNB Working Paper No. **581**.
7. Danielsson, J. and Zhou, C. (2015) *Why risk is so hard to measure?* DNB Working Paper No. **494**.
8. Moore, K., Sun, P., de Vries, C.G. and Zhou, C. (2013) *The Cross-Section of Tail Risks in Stock Returns*. Working paper.
9. Moore, K. and Zhou, C. (2012) *"Too big to fail" or "Too non-traditional to fail"? The determinants of banks' systemic importance*. DNB Working Paper No. **347**.
10. Galati, G. Lewis, J., Poelhekke, S. and Zhou, C. (2011) *Have market views on the sustainability of fiscal burdens influenced monetary authorities' credibility?* DNB Working Paper No. **304**.
11. Garita, G. and Zhou, C. (2009) *Can open capital markets help avoid currency crises?* DNB Working Paper No. **205**.

Presentations at conferences/workshops/seminars (in last two years)

1. Invited talk in Workshop "Understanding the diversity of financial risk", Budapest, Hungary, April 3, 2020.
2. Invited talk in the RSSB 2019 Annual Meeting, Sint-Truiden, Belgium, Oct 16-18, 2019.
3. Invited talk in International Conference on Probability Theory and Statistics, dedicated to the 75th anniversary of Professor Estate V. Khmaladze, Tbilisi, Georgia, Sept 9-13, 2019.
4. 2019 Joint Statistical Meetings, Denver, United States, July 27-Aug 1, 2019.
5. Invited talk in the 11th Extreme Value Analysis Conference, Zagreb, Croatia, July 1-5, 2019.

6. Invited talk in the 2019 ICSA Applied Statistics Symposium, Rleigh,, United States, June 9-12, 2019.
7. Invited talk in Workshop on Extremal Trends in Weather, Tregynon, Wales, April 29-May 1, 2019.
8. Invited talk in Workshop on Empirical Processes and Applications to Statistics, Besançon, France, May 13-14, 2019.
9. Invited talk in the 11the CMStatistics Confernce, Pisa, Italy, Dec 14-16, 2018.
10. Invited talk in Workshop on Dependence Modeling, Aegina, Greece, Sept 13-14, 2018.
11. 2018 Joint Statistical Meetings, Vancouver, Canada, July 28-Aug 2, 2018.
12. Invited talk in 49th Scientific Meeting of the Italian Statistical Society, Palermo, Italy, June 20-22, 2018.
13. Invited talk in Workshop on Extreme and Rare Events, Paris, France, May 24-25, 2018.
14. Invited talk in Risk Analytics Day, Toronto, Canada, May 14, 2018.
15. Invited seminar, University of Zagreb, Zagreb, Croatia, May 3, 2018.
16. Invited seminar, University of Dortmund and University of Bochum, Dortmund, Germany, Jan 23, 2018.

Teaching

Master level courses

Quantitative Risk Management, ESE, Erasmus University Rotterdam
Market and systemic risk management, Tinbergen Institute

Bachelor level courses

Markov Processes, Probability Theory, Statistics

Executive course and other mini courses

Statistics for Data Science and Business Analytics, ESE, Erasmus University Rotterdam
Mini course on extreme value analysis, Norges Bank

Doctoral students

Graduated (co-supervised with Prof. dr. Casper de Vries)

Maarten van Oordt (Oct 2013, first job placement: Bank of The Netherlands; second job placement: Bank of Canada)
Pengfei Sun (Oct 2013, first job placement: Deutsche Bank)
Kyle Moore (Oct 2013, first job placement: London School of Economics)
Sander Muns (Jan 2016, first job placement: Central Planning Bureau)
Xiao Xiao (Feb 2017, first job placement: Erasmus University Rotterdam)

Upcoming

Jochem Oorschot (expected 2021)
Jens Klooster (expected 2023)

Department service activities

Academic director of Master program in Quantitative Finance, 2021 – now
Member of the Examination board, Tinbergen Institute, 2020 – now
Member of the Examination board, Erasmus School of Economics, 2019 – now
Member of the Research Advisory Committee, Erasmus School of Economics, 2019 – now