

# Zhen Chen, Ph.D.

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🌐 Personal website: <https://robinchen121.github.io/>

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## Working Experience

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- 2022.06–2023.06    📌 **Visiting scholar.** Business School, University of Edinburgh  
Host Professor: Roberto Rossi
- 2019.02–present    📌 **Lecturer.** College of Economics and Management, Southwest University, China.
- 2018.09–2018.12    📌 **Post doc.** School of Economics and Business Administration, Chongqing University, China.

## Education

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- 2014.09 – 2018.06    📌 **PhD, Management Science and Engineering, Beihang University, Beijing, China.**  
Thesis title: *Lot sizing problems considering supply chain financing.*  
Supervisor: Professor Ren-qian Zhang, Professor Roberto Rossi
- 2016.09 – 2017.08    📌 **Visiting PhD student, Management Science and Business Economics, University of Edinburgh, Edinburgh, UK.**  
Supervisor: Professor Roberto Rossi
- 2010.09 – 2013.01    📌 **Master. Management Science and Engineering, Beihang University, Beijing, China.**
- 2006.09 – 2010.06    📌 **Bachelor. Business Administration, Northeastern University, Qinhuangdao, China.**

## Research Fields

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- 📌 inventory management
- 📌 supply chain financing
- 📌 stochastic modelling and programming

## Research Publications

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### Journal Article

- 1 **Chen, Z.** & Zhang, R.-q. (2022). A multi-period multi-product stochastic inventory problem with order-based loan. *International Journal of Production Research*. (ABS 3, DOI: 10.1080/00207543.2021.2006818).
- 2 **Chen, Z.** & Rossi, R. (2021). A dynamic ordering policy for a stochastic inventory problem with cash constraints. *OMEGA: the International Journal of Management Science*, 102. (ABS 3, DOI: 10.1016/j.omega.2020.102378).
- 3 **Chen, Z.** & Zhang, R.-q. (2021). A cash-constrained dynamic lot-sizing problem with loss of goodwill and credit-based loan. *International Transactions in Operational Research*, 28(5), 2841–2866. (ABS 1).
- 4 **Chen, Z.** & Rossi, R. (2019). A cash constrained single item stochastic lot-sizing problem. *IFAC-PapersOnLine*, 52(13), 1479–1483.
- 5 **Chen, Z.** & Zhang, R.-q. (2019). Single item lot sizing problem considering loan and capital constraint. *Journal of System engineering (in Chinese)*, 34(02), 266–276 + 288.
- 6 **Chen, Z.** & Zhang, R. (2018). A capital flow-constrained lot-sizing problem with trade credit. *Scientia Iranica. Transaction E, Industrial Engineering*, 25(5), 2775–2787.
- 7 **Chen, Z.**, Wu, Y., & Zhao, Q. (2015). Research on an independent ordering model and a joint ordering model of retailers under a new variable lead time. *Industrial Engineering and Management (in Chinese)*, 20(04), 61–67.
- 8 **Chen, Z.** & Xu, L. (2015). Comparative analysis on the operating costs of freight enterprises under implementation of carbon policies. *Industrial Engineering*, (03), 55–62. (in Chinese).

### Submitted paper

- 1 **Chen, Z.** & Archibald, W. T. (2022). *Maximising the survival probability of a cash-flow inventory problem with joint service level constraint*. (submitted to European Journal of Operational Research, ABS 4).
- 2 Rossi, R., **Chen, Z.**, & Tarim, S. A. (2022). *On the stochastic inventory problem under order capacity constraints*. (submitted to European Journal of Operational Research, ABS 4).

### Conference

- 1 **Chen, Z.** (2022). A cash-flow inventory problem maximising the survival probability with joint chance constraint. In *32nd european conference on operational research (euro 2022)* (pp. 1–10). Espoo, Finland.
- 2 **Chen, Z.** & Rossi, R. (2017). Stochastic lot sizing problem considering capital flow and business overdraft. In *8th international workshop on lot sizing* (pp. 59–62). Glasgow, UK.
- 3 **Chen, Z.** & Zhao, Q. (2013). An analysis for multi plant location problem under concurrent implementation of different carbon policies. In *International asia conference on industrial engineering & management innovation* (pp. 1359–1367). Beijing, China.

### Books and Chapters

- 1 Zhang, R., Wang, J., & **Chen, Z.** (2016). Tongfang energy engineering technology co., ltd.—energy management contract service. In J. Wang, M. Kosaka, & K. Xing (Eds.), *Manufacturing servitization in the asia-pacific* (pp. 251–286). Singapore: Springer.

## Projects

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- *“Data-driven demand forecasting, inventory and financing management and their integration research”* Youth Project of National Natural Science Foundation of China, 2022-2024, Project No. 72101213, £37,500 (PI)
- *“Multi-period inventory control for online retailers under supply chain financing”* Fundamental Research Funds for the Central Universities, 2019-2023, Project No. SWU1909738, £18,750 (PI)
- *“Big data application research in the risk control of supply chain financing in Chongqing”* Chongqing Social Science Planning Fund, 2021-2023, Project No. 2020BS49, \$ 625 (PI)
- *“Financial technology application research in supply chain financing”* Research Funds of the Research Institute of Intelligent Finance and Platform Economics, Southwest University, 2020-2021, Project No. 20YJ0105, £2,500 (PI)

## Teach

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- Principle of Statistics (undergraduate students)
- Multivariate Statistics (undergraduate students)
- Decision Theory and Methods (undergraduate students)
- Production and Operation Management (undergraduate students)
- Python Programming (undergraduate & master students)
- Advanced Applied Mathematical Statistics (PhD students, co-teach with two other teachers)

## Review activity

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I regularly review research articles for the academic journals listed below:

- European Journal of Operational Research (ABS 4)
- OMEGA: the International Journal of Management Science (ABS 3)
- International Journal of Production Research (ABS 3)
- Computers & Operations Research (ABS 3)
- Computers & Industrial Engineering (ABS 2)

## Invited lecture

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- *“A dynamic ordering policy for a stochastic inventory problem with cash constraints”*, virtual seminar, University of Edinburgh Business School, Edinburgh, UK, Feb 4, 2021.

## References

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**Professor Roberto Rossi**

Business School, University of Edinburgh, Edinburgh, United Kingdom

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**Professor S. Armagan Tarim**

Business School, University College Cork, Cork, Ireland

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