

Jian (Ray) Zhang

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WORK HISTORY

Assistant professor, 2017 – present

Haskayne School of Business, University of Calgary

Postdoc Fellow, 2013 –2017

COSMO - Stochastic Mine Planning Laboratory

Department of Mining and Materials Engineering, McGill University, Canada

Associate Consultant, 2007 – 2008

Oracle Software Systems Co., Ltd, Shenyang, China

RESEARCH PUBLICATIONS

Refereed Journal Papers

- **Zhang J**, Nault BR (2022) Information Sharing in an MTO Supply Chain with Upstream Adjustments. *European Journal of Operational Research*, <https://doi.org/10.1016/j.ejor.2022.10.034>.
- **Zhang J**, Nault BR, Dimitrakopoulos RG (2019) Optimizing a Mineral Value Chain with Market Uncertainty using Benders Decomposition. *European Journal of Operational Research* 274(1): 227-239.
- **Zhang J**, Dimitrakopoulos RG (2018) Stochastic optimization for a mineral value chain with nonlinear recovery and forward contracts *Journal of the Operational Research Society* 69(6): 864-875.
- **Zhang J**, Dimitrakopoulos RG (2017) A dynamic-material-value-based decomposition method for optimizing a mineral value chain with uncertainty. *European Journal of Operational Research* 258(2): 617-625.
- **Zhang J**, Nault BR, Tu Y (2015) A dynamic pricing strategy for a 3PL provider with heterogeneous customers. *International Journal of Production Economics* 169: 31-43.
- **Zhang J**, Yang W, Tu Y (2013) Scheduling with compressible and stochastic release dates. *Computers & Operations Research* 40(7): 1758-1765.
- **Zhang J**, Nault BR, Yang W, Tu Y (2012) Dynamic price quotation in a responsive supply chain for one-of-a-kind production, *International Journal of Production Economics* 139(1): 275-287.
- **Zhang J**, Tu Y, Liu X (2011) A capacitated production planning problem for closed-loop supply chain with remanufacturing. *The International Journal of Advanced Manufacturing Technology* 54(5): 757-766.

- Liu X, Tu Y, **Zhang J.** (2008) A genetic algorithm heuristic approach to general outsourcing capacitated production planning problems. *International Journal of Production Research* 46(18): 5059-5074

Working Papers

- Zhang J and Nault BR. Incentivizing Upstream Information Sharing in Platform-Based E-Commerce.
- Zhang J, Laidlaw E, Patterson R. The Flexibility-based Price Discrimination by Firms with Value-added Service.
- Zhang, J, Nault BR and Ma J. The competition of Streaming Platforms with Proprietary Content Licensing.
- Ma J, Nault BR, Zhang, J. The Impact of Decentralized Autonomous Organizations on Platform Economy for a Business Coalition

Book Chapter

- **Zhang, J.**, Dimitrakopoulos, R. (2018). Optimising a Mineral Supply Chain Under Uncertainty with Long-Term Sales Contracts. In: Dimitrakopoulos, R. (eds) *Advances in Applied Strategic Mine Planning*. Springer, Cham. https://doi.org/10.1007/978-3-319-69320-0_45

Refereed Conference Papers & Presentations

- Ma J, Nault BR, Zhang, J. The Impact of Decentralized Autonomous Organizations on Platform Economy for a Business Coalition, CORS/INFORMS International Conference, Vancouver, Canada, 2022
- Zhang, Jian, and Barrie R. Nault. "The Competition Between Edge Providers and the Impact of Analytics Technology", CIST 2019, Seattle, WA, USA, 2019.
- Zhang, Jian, and Barrie R. Nault. "Upstream Information Sharing in a Make-to-Order Supply Chain", CIST 2017, Houston, TX, USA, 2017.
- Zhang, Jian, and R. Dimitrakopoulos. "A Dynamic-ore-price-based Method for Optimizing a Mineral Value Chain with Uncertainty", in proceedings of the *37th International Symposium on the Application of Computers and Operations Research in the Mineral Industry (APCOM 2015)*, Fairbanks, AK, the United States, 2015.
- Zhang, Jian, and R. Dimitrakopoulos. "Optimizing a Mineral Supply Chain with Uncertainty and Non-Linear Operations", in proceedings of *Orebody Modeling and Strategic Mine Planning (SMP) Conference*, Perth, Western Australia, 2014.
- Zhang, Jian, Barrie R. Nault, and Yiliu Tu. "Dynamic and adaptive price quotation in a Make-To-Order company", *Technology Management Conference (ITMC), 2011 IEEE International*. IEEE, 2011.
- Zhang, Jian, and Xiao Liu. "A capacitated production planning problem for closed-loop supply chain." *International Conference in Swarm Intelligence*. Springer, Berlin, Heidelberg, 2010.
- Liu, Xiao, and Jian Zhang. "A capacitated production planning with outsourcing: a general model and its algorithm." *International Conference on Intelligent Computing*. Springer, Berlin, Heidelberg, 2006.

Non-Refereed Conference Abstracts & Presentations

- Zhang, Jian. “Discussion on “Supply Chain Transparency in the Blockchain Era: An Economic Analysis of Competitive Implications”, Xi’an, China, 2019.
- Zhang, Jian, and Roussos G. Dimitrakopoulos. “A Dynamic-Ore-Price Based Approach for Mineral Value Chain Optimization with Uncertainty”, presented at CORS/INFORMS International Meeting, Montréal, QC, Canada, 2015.
- Zhang, Jian, and Roussos G. Dimitrakopoulos. “Mine Production Planning in Consideration of Commodity Market Risk”, presented at *SME Annual Conference & Expo*, Denver, CO, the United States, 2015.
- Zhang, Jian, and Roussos G. Dimitrakopoulos. “Mineral Supply Chain Planning with Dynamic Recovery Rate and Market Uncertainty”, presented at *INFORMS Annual Conference*, Montreal, QC, 2014.
- Zhang, Jian, and Roussos G. Dimitrakopoulos. “Optimizing a Mineral Supply Chain with Uncertainties Integrating Long-term Contract”, presented at *IIE Annual Conference & Expo*, Montreal, QC, 2014.
- Zhang, Jian, and Roussos G. Dimitrakopoulos. “Optimize a Mineral Supply Chain with Uncertainties in Ore Supply and Commodity Market”, presented at *Optimization Days*, Montreal, QC, 2014.

Research Grants

- SSHRC Insight Development Grant (IDG) The Impact of Decentralized Autonomous Organization on Data Economy (CAD 45,422), 2020 - 2022
- SSHRC IDG Enhancement Grant (CAD 3,500), 2019-2021
- Dean’s Publication Award (CAD 5,000), Haskayne School of Business, University of Calgary, 2019-2022.
- University Research Grant Committee (URGC) Explore Faculty Seed Grant: The Impact of Blockchain on Multi-sided platforms (CAD 14,500), Social Sciences and Humanities Research Council (SSHRC), 2019-2020.
- Dean’s Research Excellence Grant (CAD 40,000), Haskayne School of Business, University of Calgary, 2017-2021.

Teaching

Haskayne School of Business, University of Calgary

- 2017 - 2018 - BTMA 317 - Introduction to Business Technology Management
- 2017-2022- BTMA 331&631- Data Management and Business Analytics

Department of Mining Engineering, McGill University

- Optimization Methods in Mining Engineering, Winter 2015
- Discrete Optimization, Winter 2015
- Optimization Methods in Mining Engineering, Fall 2014

Online short lectures

- Benders decomposition: <https://youtu.be/vQzpydNOWDY>

- Bayesian inference: <https://youtu.be/I4dkEALQv34>
- ANOVA and T-test: <https://youtu.be/dysmMWIY9U4>

Service

- The MBA Committee of Haskayne School of Business, University of Calgary
- The Master of Management (MMgmt) Committee of Haskayne School of Business, University of Calgary
- Business Intelligence and Analytics Advisory Committee of Continuing Education, University of Calgary