

Jian (Ray) Zhang

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WORK HISTORY

Assistant professor, July 2017 – present

Haskayne School of Business, University of Calgary

Postdoc Fellow, September 2013 – July 2017

COSMO - Stochastic Mine Planning Laboratory

Department of Mining and Materials Engineering, McGill University, Canada

EDUCATION

Ph.D. Industrial Engineering, September 2013

Department of Mechanical and Manufacturing Engineering, University of Calgary, Canada

Thesis: "Essays on the Dynamic Pricing Strategy and Its Influence on Supply Chain Integration"

M.S. Management Science and Engineering, 2007

Northeastern University, China

Specialization: Intelligent Algorithm and Production Planning

B.B.A. Management Information System, 2005 (First-Class Honors with Distinction)

Northeastern University, China

RESEARCH PUBLICATIONS

Working Papers

- Zhang, Jian, and Barrie R. Nault. "Upstream Information Sharing in a Make-to-Order Supply Chain".

Refereed Journal Papers

- Zhang, Jian, Barrie R. Nault, and Roussos G. Dimitrakopoulos. "Optimizing a Mineral Value Chain with Market Uncertainty using Benders Decomposition", *European Journal of Operational Research (EJOR)*, conditionally accepted with minor revision.
- Zhang, Jian, and Roussos G. Dimitrakopoulos. "Stochastic optimization for a mineral value chain with nonlinear recovery and forward contracts." *Journal of the Operational Research Society* 69.6 (2018): 864-875.
- Zhang, Jian, and Roussos G. Dimitrakopoulos. "A dynamic-material-value-based decomposition method for optimizing a mineral value chain with uncertainty." *European Journal of Operational Research* 258.2 (2017): 617-625.

- Zhang, Jian, Barrie R. Nault, and Yiliu Tu. "A dynamic pricing strategy for a 3PL provider with heterogeneous customers." *International Journal of Production Economics* 169 (2015): 31-43.
- Zhang, Jian, Wensheng Yang, and Yiliu Tu. "Scheduling with compressible and stochastic release dates." *Computers & Operations Research* 40.7 (2013): 1758-1765.
- Zhang, Jian, Barrie R. Nault, Wensheng Yang, and Yiliu Tu. "Dynamic price quotation in a responsive supply chain for one-of-a-kind production." *International Journal of Production Economics* 139.1 (2012): 275-287.
- Zhang, Jian, Xiao Liu, and Y. L. Tu. "A capacitated production planning problem for closed-loop supply chain with remanufacturing." *The International Journal of Advanced Manufacturing Technology* 54.5-8 (2011): 757-766.
- Liu, Xiao, Yiliu Tu, and Jian Zhang. "A genetic algorithm heuristic approach to general outsourcing capacitated production planning problems." *International Journal of Production Research* 46.18 (2008): 5059-5074

Refereed Conference Papers & Presentations

- 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, 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.

TTEACHING EXPERIENCE

Instructor:

- F2017 - BTMA 317 - Introduction to Business Technology Management
- F2017 - BTMA 331/799.02 - Data Management and Business Analytics

Teaching Assistant:

Department of Mining Engineering, McGill University

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

Department of Mechanical and Manufacturing Engineering, University of Calgary

- Engineering Economics, Spring 2013
- Advanced Operations Research, Fall 2010
- Engineering Computing Tools (Excel VBA & Matlab), Fall 2010
- Project Engineering, Winter 2010
- Computer Numerically Controlled Machines, Winter 2009
- Computer-aided Design and Graphics, Fall 2008 & Fall 2009
- Quality Assurance, Winter 2008

Online lectures

- Benders decomposition: <https://youtu.be/vQzpydNOWDY>
- Bayesian inference: <https://youtu.be/l4dkEALQv34>
- ANOVA and T-test: <https://youtu.be/dysmMWIY9U4>