

Gangshu (George) Cai, Ph.D.

Assistant Professor
Department of Management
College of Business Administration
Kansas State University
Manhattan, KS 66506
E-Mail: gcai@ksu.edu

EDUCATION

Ph.D., Operations Research and Computer Science, May 2005, North Carolina State University, Raleigh, NC, USA

M.S., Business Statistics and Economics, July 1999, Guanghua School of Management, Peking University, Beijing, China

B.S., Physics, July 1996, Department of Physics, Peking University, Beijing, China

WORK EXPERIENCE

Kansas State University 2007-Present
Assistant Professor, Department of Management, College of Business Administration

Texas A&M International University 2005-2007
Assistant Professor, MIS & Decision Sciences, College of Business Administration

IBM, T. J. Watson Research Center, New York 2004 May - August
Supplemental Research Staff in E-Commerce Architecture Department

North Carolina State University, Raleigh, North Carolina 2000-2005
Teaching Assistant (2000-2001) in Department of Statistics and Research Assistant (2001-2005) in Electronic Commerce Research Group, Program of Operations Research and Computer Science

The Chinese University of Hong Kong, Hong Kong, China 1999-2000
Research Assistant in Decision Sciences and Consumer Preference, Department of Marketing

HONORS AND AWARDS

- *Omega Rho*, International Honor Society of INFORMS, 2005
- Scholarship of *SIGART/AAAI Doctoral Consortium*, 2004
- Best Paper Award of the *Fifth International Conference on Electronic Commerce (ICEC)*, 2003
- AAAI Student Scholarship, 2002
- May Fourth Fellowship, Peking University, 1997-1998
- Top 10 Outstanding Youth of Zhangzhou City, 1991
- Third-Prize Winner of The Seventh China's National Olympic Physics Contest, 1991
- First-Prize Winner of Olympic Physics Experiment and Theory Contest of Fujian Province, 1990

PUBLICATIONS AND RESEARCH PAPERS

Refereed Journal Publications

- Gangshu Cai, Xiuli Chao, and Jianbin Li. 2008. Optimal Reserve Prices in the Name-Your-Own-Price Auctions with Bidding and Channel Options. *Production and Operations Management*, forthcoming.
- Gangshu Cai, Zhe George Zhang, and Michael Zhang. 2008. Game Theoretical Perspectives on Dual-Channel Supply Chain Competition with Price Discounts and Pricing Schemes. *International Journal of Production Economics*, forthcoming.
- Gangshu Cai and Ned Kock. 2009. The E-Collaboration Effort and Media Relativeness: An Evolutionary Game Perspective. *European Journal of Operational Research* 194(3), 821-833.
- Gangshu Cai, Peter R. Wurman, and Xiuli Chao. 2007. The Non-Existence of Equilibrium in Sequential Auctions When Bids Are Revealed. *Journal of Electronic Commerce Research* 8(2), 141-156.
- Gangshu Cai, Jie Zhong, and Peter R. Wurman. 2007. The Constraints of the Valuation Distribution for Solving a Class of Games by Using a Best Response Algorithm. *International Journal of Manufacturing Technology and Management* 12(4), 327-341.
- Gangshu Cai and Peter R. Wurman, 2005. Monte Carlo Approximation in Incomplete-Information, Sequential-Auction Games. *Decision Support Systems* 39(2), 153-168.
- Peter R. Wurman, Jie Zhong, and Gangshu Cai, 2004. Computing Price Trajectories in Combinatorial Auctions with Proxy Bidding. *Electronic Commerce Research and Applications* 3(4), 329-340.

Refereed Conference Publications

- Gangshu Cai. 2004. Flexible Decision-Making in Sequential Auctions. In *Proceedings of the Nineteenth National Conference on Artificial Intelligence (AAAI 2004 Doctoral Consortium)*.
- Peter R. Wurman, Gangshu Cai, Jie Zhong, and Ashish Sureka, 2003. An Algorithm for Computing the Outcome of Combinatorial Auctions with Proxy Bidding. *Fifth International Conference on Electronic Commerce (ICEC2003)*, pages 1-8. *Best Paper Award*.
- Peter R. Wurman, Gangshu Cai, and Ashish Sureka, 2003. An Algorithm for Computing the Outcome of Combinatorial Auctions with Proxy Bidding. A poster version appeared in the ACM EC-03 conference.

Book Chapters

- Ned Kock and Gangshu Cai. 2007. A Web-Enabled Course Partnership. *Encyclopedia of Information Science and Technology (2nd Edition)*, Khosrowpour, M. (Ed), Idea Group Publishing, Hershey, PA, pp. W1-W6. [ISBN-13: 978-1-59140-553-5]

Papers under Review

- Zhe George Zhang, Gangshu Cai, Ilhyung Kim. Capacity Allocation between MTS and MTO Operations.
- Gangshu Cai, Yue Dai, Sean X. Zhou. Exclusive Channels: The iPhone Introduction.
- Sean X. Zhou, Zhijie Tao, Nianbing Zhang, Gangshu Cai. Reverse Auction Procurement with Flexible Noncompetitive Contracts.
- Gangshu Cai, Two-Stage Stackelberg Game Theoretic Analysis of Multichannel Supply Chain Competition and Coordination.

- Gangshu Cai. Last-Minute Bidding in Online Auctions with Proxy and Non-Proxy Settings.
- Gangshu Cai. Channel Selection and Coordination in a Dual-Channel Supply Chain.
- Gangshu Cai and Wen-Chyuan Chiang. Game Theoretic Pricing and Ordering Decisions with Partial Lost Sales for Two-Stage Supply Chains.
- Gangshu Cai, Wen-Chyuan Chiang and Xiaojing Xu. Service Guarantee and the Optimal Payout Model.
- Gangshu Cai and Peter R. Wurman. Strategic Equilibria in First-Price Sealed-Bid Auctions with Discrete Bids.
- Moutaz Khouja, Sungjune Park, and Gangshu Cai. Channel Selection and Pricing in the Presence of Retail-Captive Consumers.

Other Conference Publications and Invited Presentations

- Gangshu Cai. Exclusive Channel: The iPhone Introduction. Invited talk at Beijing Foreign Studies University and Fudan University, June 2008. INFORMS 08 Washington DC.
- Sean X. Zhou, Zhijie Tao, Nianbing Zhang, Gangshu Cai. Reverse Auction Procurement with Flexible Noncompetitive Contracts. MSOM 2008, OCSAMSE Shanghai 08. INFORMS 08 Washington DC.
- Gangshu Cai. Channel Selection and Coordination in a Dual-Channel Supply Chain. INFORMS 2007 Seattle. Invited talk at China Academy of Science, June 2007.
- Gangshu Cai and Xiuli Chao. Optimal Reserve Prices in the Name-Your-Own-Price Channel of a Dual-Channel Market. DSI 2007 Phoenix.
- Gangshu Cai, Wen-Chyuan Chiang, Xiaojing Xu, Jason C.H. Chen. Service Guarantee Level and Economic Payout Optimization. 17th ACME Annual Meeting 2007.
- Gangshu Cai. Last-Minute Bidding in Online Auctions with Proxy and Non-Proxy Settings. DSI 2006 San Antonio.
- Gangshu Cai, Wen-Chyuan Chiang and Xiaojing Xu. Service Guarantee and the Optimal Payout Model. DSI 2006 San Antonio.
- Gangshu Cai, Moutaz Khouja, and Sungjune Park. How Should A Supplier Price Dynamically and Leverage Its Marketing Effort When Entering A Direct Market? INFORMS 2006 Pittsburgh.
- Gangshu Cai. Is It Always Optimal to Bid at the Last Minute? INFORMS 2005 San Francisco.
- Gangshu Cai, Peter R. Wurman, and Xiuli Chao. Non-Existence of Equilibrium in a Model of Sequential Auctions. INFORMS 2004 Denver.
- Gangshu Cai. Flexible Decision-Making in Sequential Auctions. American Association of Artificial Intelligence (AAAI) 2004 Doctoral Consortium.

Dissertation and Thesis

- Ph.D. Dissertation: *Flexible Decision-Making in Sequential Auctions*. North Carolina State University.
- M.S. Thesis: *The Multivariate Statistical Analysis of Regional Differences in China's Real Estate Market*. Peking University.

PATENTS

- Peter R. Wurman, Gangshu Cai, Jie Zhong, and Ashish Sureka. 2004. Title of Invention: "A Proxy Algorithm for Combinatorial Auctions." NCSU File Number 04-S03.

GRANT AWARDED

- Gangshu Cai. The Impact of iPhone on the Wireless Market. Kansas State University competitive grant USRG proposal #2338 awarded \$500.

PROFESSIONAL ACTIVITIES

Editorial Board

- International Journal of Revenue Management, 2007—Present.

Visiting Scholar

- Chinese University of Hong Kong, May-June 2007, June 2008
- Tsinghua University, May 2008
- Fudan University, July 2008.

Professional Conferences/Workshops Presented/Attended

- INFORMS 2004-2008 (*Session chair for E-Business Auctions and Contracts, 2004*)
- OCSAMSE 2008 Shanghai
- DSI 2006-2007 (*Session chair for Forecasting and Lead Time, 2006*)
- AAAI 2002, 2004
- ICEC 2003

Ad Hoc Reviewer

- Marketing Science
- Production and Operations Management
- Naval Research Logistics
- European Journal of Operational Research
- ACM Transactions on Internet Technology
- IEEE Transactions
- Electronic Commerce Research and Application
- Asia-Pacific Journal of Operational Research
- International Journal of Technology Management
- International Journal of Revenue Management
- DSI Conference Proceeding

Academic/Professional Memberships

- INFORMS, DSI, AAAI, ACM

OTHER ACTIVITIES

- Founder and First President of Badminton Club at North Carolina State University, 2002-2003
- President of Young Inventors' Association of Peking University, 1993-1994