

Gangshu (George) Cai, Ph.D.
Professor, Dept of IS and Analytics
Leavey School of Business
Santa Clara University

EDUCATION

Ph.D., Operations Research, May 2005, North Carolina State University

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

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

WORK EXPERIENCE

Santa Clara University, Santa Clara, California

Full Professor, Department of IS and Analytics (the original OMIS) 2018-present

Associate Professor (Tenured in 2014) 2012-2018

Leavey School of Business

Faculty Director

Graduate Business Programs, MBA, Leavey School of Business 2014-2016

Kansas State University, Manhattan, Kansas 2007-2012

Associate Professor (2011-2012, Tenured in 2011), Assistant Professor (2007-2011), Department of Management, College of Business Administration

Texas A&M International University, Laredo, Texas 2005-2007

Assistant Professor, MIS & Decision Sciences, College of Business Administration

IBM, T. J. Watson Research Center, New York 2004 May - August

Summer Intern in E-Commerce Architecture Department

HONORS AND AWARDS

1. The sole winner of the *2018 Wickham Skinner Award for Teaching Innovation of the Production & Operations Management Society (POMS)*. POMS is the premier international professional society for the study and practice of Operations Management, with more than 2,500 members in 50 countries.
2. *The University Award for Recent Achievement in Scholarship*, Santa Clara University, recognizes scholarly or creative work over the previous five years by a faculty member that represents a major contribution to a field of knowledge or to the arts, one per university per year, 2018.
3. *Extraordinary Faculty Award, achieved Outstanding awards in all three categories -- scholarship, teaching and service, Leavey School of Business, Santa Clara University, 2018*
4. *Faculty Course Release Initiative Grant*, Santa Clara University, 2018
5. *Rank #4 Prominent retailing authors (final influence index): 2009-2015*, published by Emerald Publishing Limited
6. *Outstanding Associate Editor Award, Decision Sciences Journal, 2016*
7. *Leavey Impact Award for Service*, Leavey School of Business, Santa Clara University, 2016 (*at most one such award is given schoolwide each year for contributions*)
8. *Leavey Impact Award for Teaching*, Leavey School of Business, Santa Clara University, 2015 (*at most one such award is given schoolwide each year for contributions over the preceding five years*)

9. *Dean's Award for Teaching Excellence/Outstanding Teaching*, Leavey School of Business, Santa Clara University, 2012-2013, 2013-2014, 2014-2015, 2015-2016, 2016-2017
10. *Dean's Award for Scholarship Excellence*, Leavey School of Business, Santa Clara University, 2012-2013, 2014-2015, 2015-2016, 2016-2017,
11. *SCU Faculty Scholarship for Course Release*, Santa Clara University, 2015
12. *CBA Fellow*, College of Business Administration, Kansas State University, 2011-2012
13. *Ralph Reitz Outstanding Teaching Award*, College of Business Administration, Kansas State University, 2011 (only one per year college-wide)
14. *President's Faculty Development Award*, Kansas State University, 2011
15. *Outstanding Contributions in Research Award*, College of Business Administration, Kansas State University, 2010 (only one schoolwide per year)
16. *Omega Rho*, International Honor Society of INFORMS, 2005
17. Scholarship of *SIGART/AAAI Doctoral Consortium*, 2004
18. *Best Paper Award of the Fifth International Conference on Electronic Commerce (ICEC)*, 2003
19. *AAAI Student Scholarship*, 2002
20. *May Fourth Fellowship*, Peking University, 1997-1998

RESEARCH GRANTS AWARDED (\$1,192,739 in total from NSF, NSFC, and other agencies)

PUBLICATIONS AND RESEARCH PAPERS

Refereed Journal Publications

1. Lei Yang, Gangshu Cai, and Jian Chen. Push, Pull, and Supply Chain Risk Attitude. *Production and Operations Management*. Forthcoming. Corresponding author.
2. Xiangfeng Chen, Gangshu Cai, and Jeanette Song. 2017. The Cash Flow Advantages of 3PLs as Supply Chain Orchestrators. *Manufacturing & Service Operations Management*. Forthcoming.
3. Shiming Deng, Chaocheng Gu, Gangshu Cai, and Yanhai Li. 2017. Financing Multiple Heterogeneous Suppliers in Assembly Systems. *Manufacturing & Service Operations Management*. Forthcoming.
4. Lan Wang, Gangshu Cai, Andy Tsay, and Asoo Vakharia. 2017. Design of the reverse channel for remanufacturing: Must profit-maximization harm the environment? *Production and Operations Management*. Forthcoming.
5. Xiaodong Yang, Gangshu Cai, Ying-ju Chen, and Sunny Yang. 2017. Competitive Retailer Strategies for New Market Research, Entry and Positioning Decisions. *Journal of Retailing*. 93 (2), 172-186. Corresponding author.
6. Xueping Zhen, Yongjian Li, Gangshu Cai, Dan Shi. 2016. Transportation Disruption Risk Management: Business Interruption Insurance and Backup Transportation, *Transportation Research Part E*. 90, 51-68.
7. Yongjian Li, Xueping Zhen, Xiangtong Qi, Gangshu Cai. 2016. Penalty and financing assistance between supply chain partners under a supply disruption. *Omega, The International Journal of Management Science*. 61, 167-181.
8. Reo Song, Sung Ha Jang, Gangshu Cai. 2016. Does advertising indicate product quality? Evidence from prelaunch and postlaunch advertising in the movie industry. *Marketing Letter*. 27(4), 791-804.
9. Sean X. Zhou, Zhijie Tao, Nianbing Zhang, and Gangshu Cai. 2015. Procurement with Reverse Auction and Ex Ante Flexible Noncompetitive Contracts. *Decision Sciences*. 47(3), 554-581. Corresponding author.
10. Hao Wu, Gangshu Cai, Jian Chen, and Chwen Sheu. 2015. Manufacturer Internet Referral with Heterogeneous Retailers. *Production and Operations Management*. 24(11), 1768-1782.
11. Bin Liu, Gangshu Cai, and Andy Tsay. 2014. Advertising in Asymmetric Competing Supply Chains. *Production and Operations Management*. 23(11), 1845-1858.

12. Gangshu Cai, Xiangfeng Chen, and Zhiguo Xiao. 2014. The Roles of Bank and Trade Credits: Theoretical Analysis and Empirical Evidence. *Productions and Operations Management*. 23(4), 583-598.
13. Gangshu Cai, Ying-Ju Chen, Chi-Cheng Wu, and Lu Hsiao. 2013. Probabilistic Selling, Channel Structure, and Supplier Competition. *Decision Sciences*. 44(2), 267-296. Corresponding author.
14. Zhe George Zhang, Ilhyung Kim, Mark Springer, Gangshu Cai, and Yu Yugang. 2013. Dynamic Pooling of Make-to-Stock and Make-to-Order Operations. *International Journal of Production Economics*. 144(1), 44-56.
15. Bing Jing, Xiangfeng Chen, and Gangshu Cai. 2012. Equilibrium Financing in a Distribution Channel with Capital Constraint. *Productions and Operations Management*. 21(6), 1090-1101. Lead article. (Authors are listed in reverse alphabetical order.)
16. Wen-Chyuan Chiang, Gangshu Cai, Xiaojing Xu, and Xiangfeng Chen. 2013. Service Guarantee and the Optimal Payout Model. *International Journal of Production Economics*. 141(2), 519-528.
17. Gangshu Cai, Yue Dai, and Sean X. Zhou. 2012. Exclusive Channels and Revenue Sharing in a Complementary Goods Market. *Marketing Science*. 31(1), 172-187. Lead article.
18. Gangshu Cai, Ying-Ju Chen, and Xiting Gong. 2012. Design of Online Auctions: Proxy versus Non-Proxy Settings. *Decision Support Systems*. 52(2), 384-394. Corresponding author.
19. Chwen Sheu, Lee J. Krajewski, and Gangshu Cai. 2012. A Heuristic for Designing Manufacturing Focus Units with Resource Considerations. *International Journal of Production Research*. 50(6), 1608-1623. Corresponding author.
20. Gangshu Cai and Ying-Ju Chen. 2011. In-Store Referral on the Internet. *Journal of Retailing*. 87(4), 563-578.
21. Xiangfeng Chen and Gangshu Cai. 2011. Joint logistics and financial services by a 3PL firm. *European Journal of Operational Research*. 214(3), 579-587. Corresponding author.
22. Gangshu Cai, Wen-Chyuan Chiang, and Xiangfeng Chen. 2011. Game Theoretic Pricing and Ordering Decisions with Partial Lost Sales for Two-Stage Supply Chains. *International Journal of Production Economics*. 130(2), 175-185.
23. Gangshu Cai. 2010. Channel Selection and Coordination in Dual-Channel Supply Chains. *Journal of Retailing*, 86 (1) 22–36.
24. Michael Zhang, Peter Bell, Gangshu Cai, and Xiangfeng Chen. 2010. Optimal Fences and Joint Price and Inventory Decisions in Distinct Markets with Demand Leakage. *European Journal of Operational Research*, 204(3), 589-596.
25. Moutaz Khouja, Sungjune Park, and Gangshu Cai. 2010. Channel Selection and Pricing in the Presence of Retail-Captive Consumers. *International Journal of Production Economics*, 125(1), 84-95.
26. Gangshu Cai, Peter R. Wurman, and Xiting Gong. 2010. A Note on Discrete Bid First-Price Auction with General Value Distribution. *International Game Theory Review*, 12(1) 75–81.
27. Gangshu Cai, Xiuli Chao, and Jianbin Li. 2009. Optimal Reserve Prices in the Name-Your-Own-Price Auctions with Bidding and Channel Options. *Production and Operations Management*, 18 (6), 653-671.
28. Gangshu Cai and Ned Kock. 2009. An Evolutionary Game Theoretic Perspective on E-Collaboration: The Collaboration Effort and Media Relativeness. *European Journal of Operational Research*, 194(3), 821-833.
29. Gangshu Cai, Zhe George Zhang, and Michael Zhang. 2009. Game Theoretical Perspectives on Dual-Channel Supply Chain Competition with Price Discounts and Pricing Schemes. *International Journal of Production Economics*, 117(1), 80-96.
30. 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.

31. 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.
32. Gangshu Cai and Peter R. Wurman. 2005. Monte Carlo Approximation in Incomplete-Information, Sequential-Auction Games. *Decision Support Systems* 39(2), 153-168.
33. 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.

Book Chapters

34. Gangshu Cai, Yue Dai, and Wenzhu Zhang. 2017. Multichannel Supply Chain Management with Marketing Mixes: A Survey. *Handbook of Research on Distribution Channels*, Charles A. Ingene and Rajiv P. Dant, Editors, Northampton, MA: Edward Elgar Publishing. Forthcoming.

Refereed/Invited Conference Proceedings (acceptance rates are provided if available.)

35. Wang, L., G. Cai, A. Tsay, and A.J. Vakharia, "Reverse Channel Design: Profitability vs Environmental Benefits," in Sustainability in Logistics and Supply Chain Management (eds. W. Kersten, T. Blecker, and C.M. Ringle), *Proceedings of the Hamburg International Conference on Logistics (HICL)*, Hamburg, Germany, September 2015, pp. 153-181.
36. Wen-Chyuan Chiang, Gangshu Cai, Xiaojing Xu, Ganesh Mudunuri and Weihang Zhu. 2011. Hybrid Tabu - Particle Swarm Algorithms for the Facility Layout Problem with Size Constraints. *Proceeding of the 2011 IEEE Congress on Evolutionary Computation*.
37. Gangshu Cai and Xiuli Chao. 2011. Optimal Bidding and Pricing Strategies in a Multi-Channel Opaque Service Enterprise, *Proceedings of 2011 NSF Engineering Research and Innovation Conference*, Atlanta, Georgia.
38. Sean X. Zhou, Zhijie Tao, Nianbing Zhang, Gangshu Cai. 2008. Reverse Auction Procurement with Flexible Noncompetitive Contracts. *Proceeding of INFORMS/MSOM Conference*.
39. Gangshu Cai. 2004. Flexible Decision-Making in Sequential Auctions. In *Proceedings of the Nineteenth National Conference on Artificial Intelligence (AAAI 2004 Doctoral Consortium)*. (27% acceptance rate).
40. 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)*, Pittsburgh, Pennsylvania, USA, pages 1-8. (Best Paper Award)
41. 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. (19% acceptance rate)

Encyclopedia

42. 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]

Editorial

43. Jun Zhuang, Xiaolin Xu, and Gangshu (George) Cai. 2014. Discrete Dynamic Gaming Models in Supply Chain Management and Project Management, *Discrete Dynamics in Nature and Society*. Volume 2014, Article ID 960239, 2 pages. Invited Special-issue Editor.

Patents

44. 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.

Invited Seminars at Universities and Conference Presentations

- More than 100 times in a variety of universities and major conferences

TEACHING

Teaching Performance

1. The sole winner of the *2018 Wickham Skinner Award for Teaching Innovation of the Production & Operations Management Society* (POMS). POMS is the premier international professional society for the study and practice of Operations Management, with more than 2,500 members in 50 countries.
2. *Leavey Impact Award for Teaching*, 2015, the highest teaching award in Leavey School of Business, at most one such award is given schoolwide each year for contributions over the preceding five years.
3. *Dean's Award for Teaching Excellence/Outstanding Teaching* every single year since joining SCU in 2012.
4. *Ralph Reitz Outstanding Teaching Award*, the highest student-nominated teaching award in the College of Business Administration, Kansas State University, 2011.

Courses Taught

Graduates: Analytical Decision-making, Operations Management, Decision Making & Analysis II, Computer Based Decision Models, Supply Chain Management, Supply Chain Planning and Control, Procurement, Logistics and Global Supply Chain Management, Research Methodology (Ph.D.)

Undergraduates: Quantitative Management, Management Science, Electronic Commerce, Business Statistics, Quantitative Methods, Introduction to Management Information Systems, Management Information Systems, Business Research Methodology

SERVICE ACTIVITIES

Service Awards

1. *Leavey Impact Award for Service*, Leavey School of Business, Santa Clara University, 2016 (at most one such award is given schoolwide each year).
2. *Outstanding Associate Editor Award*, *Decision Sciences Journal*, 2016.

Editorial Boards

- Senior Editor, *Production and Operations Management*, 2015-Present
- Associate Editor, *Decision Sciences Journal*, 2013-Present
- Guest Senior Editor, *Decision Sciences Journal*, 2015
- Associate Editor, *Journal of Industrial and Production Engineering*, 2015-Present
- Editorial Board Member, *International Journal of Revenue Management*, 2007-Present
- Guest Editor, *Discrete Dynamics in Nature and Society*, Special Issue on "Discrete Dynamic Gaming Models in Supply Chain Management and Project Management," 2013-2015

Visiting/Post-Doctoral Scholars Supervised

- Supervised more than 16 visiting scholars

Chair of International Conferences

- Chair, International Conference on Supply Chain and Internet Finance (SCIF), annual meeting since 2016

- Chair, International Workshop on Supply Chain Management (WISCM), annual meeting since 2014

External Committees and Other Conference Leadership Roles

- Editor Panel Moderator, The 14th International Conference on Service Systems and Service Management, June 17, 2017
- Scientific Committee for Special Session on Supply Chain Management and Finance at the 24th International Conference on Production Research (30 July–3 August 2017, Poznań, Poland)
- Session Chair in Service Science at the INFORMS Annual Meeting 2016
- Session Chair in Retail Supply Chain and OM Marketing Interface at POMS 2016
- Panel Moderator, Supply Chain Director Conference 2015 at Santa Clara
- Session Chair in Marketing and OM Interface at the INFORMS Annual Meeting 2015
- Session Chair for Sessions of Marketing and OM Interface and Retail OM at POMS Annual Meeting at Washington DC 2015
- Conference Academic Steering Committee for the 2014 Marketing International Conference, July 11 – July 14
- Technical Program Committee, 2011 WASE International Conference on Information Engineering, 13-14 August 2011
- Session chair for Advertising Strategy at INFORMS Marketing Science Conference 2011
- Session chair for Forecasting and Lead Time at *DSI* 2006
- Session chair for E-Business Auctions and Contracts at INFORMS 2004

Internal Committees/Advisory Boards

- Business School Rank and Tenure Committee, 2017--2019, SCU
- Business Analytics Minor Curriculum Syllabus Design Committee, Chair, 2018, SCU
- Departmental lecturer reappointment review committee, SCU, 2018
- Departmental tenure review committee, SCU, 2018
- Business Analytics Minor Task Force, Chair, 2017, SCU
 - Led the task force team in collecting student feedback and data from peer universities and industry.
 - Led in writing the entire proposal.
 - Proposed to the Department, ULT, Dean, University Academic Affair Committee, and other related people a launch of the minor.
- OMIS Tenure Evaluation Committee, 2016, SCU
- LSB Strategic Planning Committee, Leavey School of Business, 2016 Winter-Spring, SCU
- Senior Assistant Dean Search Committee, Leavey School of Business, 2015, SCU
- Business School Teaching Evaluation Task Force (Co-chair), 2015, SCU
 - Together with another co-chair, designed the criteria for evaluating new SET scores, initiated meetings with committee members and faculty at large, and presented recommendations to the Executive Committee.
- Faculty Director of Graduate Business Programs, both MBA and MS programs, 2014 – 2016, SCU
 - Advised the Dean on all graduate programs in the Leavey School of Business
 - Served as Chair of GPC
- The Graduate Policy Committee (GPC, Chair), 2014 – 2016, SCU
 - Set curriculum policy for all aspects of the graduate business programs, including the articulation of learning goals and the procedures for the assurance of learning.
 - Reviewed, provided feedback, and eventually approved new graduate programs, new curricula, and new courses.

- Served as the standing assessment body for continuous improvement across the core curriculum.
- Assumed the role of initiating periodic “culling” of courses that had not been taught for several years and/or are no longer part of LSB programs.
- Business School Rank and Tenure Committee, 2015--2016, SCU
- MBA student Independent Study, 2015, SCU
- Course Coordinator for OMIS 3352, 2013-present, SCU
- Summer 2015 MSF Admissions Committee, 2015, SCU
- OMIS Mid-Tenure Evaluation Committee, 2015, SCU
- Leavey Seminar Series Committee, 2013, SCU
- Operations Management Group Coordinator, 2012, KSU
- College Research Committee, 2011-2012, KSU
- College Recognition/Awards Committee, 2011-2012, KSU
- Department Promotion & Tenure Policy Committee, 2011, KSU
- Department Business Strategy Assistant Professor Search Committee, 2011, KSU
- Post-Doctoral Scholars Search Committees (Committee Chair), 2009, 2010, KSU
- Search Committee of the Interim Head of Department of Management, 2010, KSU
- Search Committee of the Interim Head of Department of Management, 2009, KSU
- K-State Badminton Club Faculty Advisor, 2007, KSU
- University IT Advisory Committee, 2006-2007, TAMIU
- University Life Award Committee, 2006-2007, TAMIU
- Division Curriculum Committee, 2006-2007, TAMIU
- Department Personnel Committee (2005-2006, TAMIU)
- Department Instructor Search Committee (2005-2006, TAMIU)

Academic/Professional Memberships

- INFORMS, POMS, DSI, AAAI, ACM

Ad Hoc Review Panelist

NSF Review Panel, NSFC Review Panel

Ad Hoc Reviewer (*more than 150 reviews, average more than 20 per year in recent years*)

NSERC-Canada, Research Grants Council – Hong Kong, Production and Operations Management, Marketing Science, Management Science, Operations Research, Manufacturing and Service Operations Management, Journal of Retailing, Decision Sciences, Naval Research Logistics, IIE Transactions, ACM Transactions, IEEE Transactions, European Journal of Operational Research

OTHER ACTIVITIES

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

REFERENCES

- | | |
|-------------------|---|
| Xiuli Chao | Professor, Department of IOE, University of Michigan, Ann Arbor, MI 48109, Tel: 734.615.8888, Email: xchao@umich.edu |
| Wen-Chyuan Chiang | Professor, Department of Operations Management, University of Tulsa, Tulsa, OK 74104. Tel: 918.631.2939, Email: wen-chiang@utulsa.edu |
| Burak Kazaz | The Steven R. Becker Professor of Supply Chain Management, Martin |

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University Avenue, Syracuse, New York 13244
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Asoo J Vakharia

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Florida, PO Box 117169, 355D STZ, Gainesville, Florida 32611-7169.
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