# JAN STALLAERT

Dept. of Operations and Information Management University of Connecticut (860) 486-6217 jan.stallaert@business.uconn.edu

### **EDUCATION**

Ph.D. May 1992 Management (Management Science concentration)

Anderson Graduate School of Management at UCLA Thesis: "On the Polyhedral Structure of Fixed Charge Network Problems" (Committee: G.W. Graves, S. Greibach, J.W. Mamer, J.B. MacQueen and L.S. Shapley)

B.A. July 1988 Philosophy

Institute of Philosophy

(Major: Epistemology and Philosophy of Nature)

Catholic University of Leuven, Belgium

B.S. July 1987 Industrial Engineering

Department of Economics and Applied Economics

(Major: Information Technology and Quantitative Management)

Catholic University of Leuven, Belgium

## PROFESSIONAL EXPERIENCE

2002-present: University of Connecticut

School of Business

Department of Operations and Information Management

Professor

2000-2002: University of Southern California

Marshall School of Business.

Department of Information and Operations Management

Associate Professor

1998-1999: Anderson Graduate School of Management at UCLA

Information Systems Department

Visiting Assistant Professor

1996-2000: University of Texas at Austin

McCombs School of Business

Department of Management Science and Information

Systems

Assistant Professor

1996-2000: Assistant Director

Center for Research in Electronic Commerce

University of Texas at Austin

1994-1996: University of Texas at Austin

McCombs School of Business

Department of Management Science and Information

Systems

Visiting Assistant Professor

1992-1994: Anderson Graduate School of Management at UCLA

Part-time Visiting Assistant Professor, Management Science

Department

# REFEREED JOURNAL PUBLICATIONS

29. "An Economic Analysis of Online Advertising Using Behavioral Targeting," (with J. Chen), MIS Quarterly, vol. 38 (2), 2014, 429-449.

- 28. "Stock Market Reaction to Green Vehicle Innovation," (with S. Ba, L. Lisic and Q. Liu), *Production and Operations Management*, vol. 22 (4), 2013, 976-990.
- 27."An Empirical Analysis of Virtual Goods Permission Rights and Pricing Strategies," (with S. Ba, D. Ke and J. Zhang), Decision Sciences, vol. 43(6), 2012, 1039-1061.
- 26. "Online Price Dispersion: A Game Theoretic Perspective and Empirical Evidence," (with S. Ba and J. Zhang), Information Systems Research, vol. 23(2), 2012, 575-592.
- 25."A Clock-and-Offer Auction Market for Grid Resources when Bidders Face Stochastic Computational Needs," (with R. Bapna, S. Das, R. Day and R. Garfinkel), INFORMS Jnl. on Computing, vol. 23 (4), 2011, 630-647.
- 24. "Balancing IT with the Human Touch Optimal Investment in IT-based Customer Service," (with S. Ba and J. Zhang), *Information Systems Research* (lead article), vol. 21 (7), 2010, 423-442.
- 23. "Why give away something for nothing? Investigating virtual goods pricing and permission strategies." (with S. Ba, D. Ke and J. Zhang). ACM Transactions on Management Information Systems, vol. 1 (1), 2010, 4:1-4:22. Received the Award of Best 2010 Publication in an IS journal at ICIS, Shanghai, Dec. 2011.

- 22."Is Your Enterprise Warming Up to Carbon 2.0?" (with Q. Liu), IEEE IT Professional, vol. 12 (5), 2010, 48-56.
- 21. "Oligopolistic Price Competition and Adverse Price Effect in Online Retailing Markets," (with S. Ba and Z. Zhang), Decision Support Systems, vol. 45 (4), 2008, 858-869.
- 20. "Shared Distribution of Digital Products Using Multicast," (with M. Parameswaran and A.B. Whinston), Electronic Commerce Research and Applications, vol. 7 (1), 2008, 93-104.
- 19. "A Market Design for Grid Computing," (with R. Bapna, S. Das and R. Garfinkel), INFORMS Journal on Computing, vol. 20 (1), 2008,100-111.
- 18. "Price Competition in E-tailing under Service and Recognition Differentiation," (with S. Ba and Z. Zhang), *Electronic Commerce Research and Applications*, vol. 6 (3), 2007, 322-331.
- 17. "Post-Optimality Analysis of the Optimal Solution of a Degenerate Linear Program Using a Pivoting Algorithm," Computers and Operations Research, vol. 34 (7), 2007, 1871-1884.
- 16. "Solving the Combinatorial Double Auction Problem," (with M Xia and A.B. Whinston), European Journal of Operational Research, vol. 164, 2005, 239-251.
- 15. "Choice of Transaction Channels: The Effects of Product Characteristics on Market Evolution," (with S. Ba, A.B. Whinston and H. Zhang), Journal of Management Information Systems, vol. 21, 2005, 173-197.
- 14. "Decentralized Mechanism Design for Supply Chain Organizations Using an Auction Market," (with M. Fan and A.B. Whinston), Information Systems Research, vol. 14, 2003, 1-22.
- 13. "Optimal Investment in Knowledge within a Firm Using a Market Mechanism," (with S. Ba and A.B. Whinston), Management Science, vol. 47, 2001, 1203-1219.
- 12. "Introducing a Third Dimension in Information Systems Design: The Case for Incentive Alignment," (with S. Ba and A.B. Whinston), *Information Systems Research*, vol. 12, 2001, 225-239.
- 11. "A Market-Based Allocation Mechanism for the DiffServ Framework," (with M. Parameswaran and A.B. Whinston), Decision Support Systems, vol. 31, 2001, 351-361.

- 10. "Design of a Financial Portal," (with K. Saatcioglu and Andrew B. Whinston) Communications of the ACM, vol. 44, 2001, 33-38.
- 9. "The Internet and the Future of Financial Markets," (with M. Fan and A.B. Whinston) Communications of the ACM, vol. 43 2000, pp 82-88.
- 8. "The Adoption and Design methodologies of Component-based Enterprise Systems," (with M. Fan and Andrew B. Whinston) European Journal of Information Systems vol. 9, 25-35, 2000.
- 7. "Valid Inequalities and Separation for Fixed Charge Capacitated Networks," Discrete Applied Mathematics vol. 98, 2000, 265-274.
- 6. "The Design and Development of a Next Generation Electronic Financial Market," (with M. Fan and A.B. Whinston), *International Journal of Electronic Commerce* vol. 4, 1999, 5-22.
- 5. "A Web-Based Financial Trading System," (with M. Fan and A.B. Whinston), *IEEE Computer*, April 1999, 64-70.
- 4. "Implementing Real-time Supply Chain Optimization Systems," (with R. Kalakota and A.B. Whinston) *POMS Series in Technology and Operations Management*, vol. 1, 1998, 60-75.
- 3. "Automated Timetabling Improves Course Scheduling at UCLA," Interfaces, vol. 27, 1997, 67-81. A summary of this paper was reprinted in the textbook "Foundations of Operations Management," by L.P. Ritzman and L.J. Krajewski, Prentice Hall, 2003, p. 386.
- 2. "The Complementary Class of Generalized Flow Cover Inequalities," Discrete Applied Mathematics, vol. 77, 1997, 73 80.
- 1. "World Wide Real Time Decision Support Systems for Electronic Commerce Applications," (with R. Kalakota and A.B. Whinston), Journal of Organizational Computing and Electronic Commerce vol. 6, 1996, 11-32.

## **BOOKS**

"Electronic Commerce and the Revolution in Financial Markets," (with M. Fan, S. Srinivasan and A.B. Whinston) ISBN 0-03-032993-0, Thomson Learning 2002.

### REFEREED BOOK CHAPTERS

- 1. "Designing IT-Supported Market Mechanisms for Organizational Coordination," (with S. Ba) in "Business Modeling: Multidisciplinary Approaches- Economics, Operational, and Information Systems" (ed. by C. Holsapple et al.), Kluwer Academic Publishers, 2002.
- "Markets for Everything in the Networked Economy," (with M. Parameswaran and A.B. Whinston), in "Financial Times: Mastering Information Management" (ed. D.A. Marchand et al.) Pearson Education Limited, 2000, 210-216. (reprinted from Financial Times, March 15, 1999).
- 3. "Designing Electronic Market Institutions for Bond Trading," (with M. Fan and A.B. Whinston) in "Creating Value in Financial Services" (ed. E.L. Melnick et al.), Kluwer Academic Publishers, 1999, 303-325.
- "Distributed Decision Support Systems for Real-Time Supply Chain Management," (with A. Hinkkanen, R. Kalakota, P. Saengcharoenrat and A.B. Whinston), Chapter 12 in "Readings in Electronic Commerce," Addison Wesley, 1997, 275 - 291.

## **INVITED PUBLICATIONS**

- 1. "Higher or Lower? How to Determine Online Pricing Strategies" (with S. Ba and Z. Zhang), BusinessForum China, May/June 2006, 30-32.
- 2. "Markets for Everything in the Networked Economy," (with M. Parameswaran and A.B. Whinston), *Financial Times,* March 15, 1999, pp 7.8-10.
- 3. "The Invisible Hand of E-Commerce," (with A.B. Whinston), Exec: The Executive's Guide to Information Solutions, September 1998, p.32.
- 4. "Creating Electronic Markets Using Java Applets and Middleware," (with M. Fan and A.B. Whinston), Dr. Dobb's Journal, November 1998, 52-57.
- 5. "Markets for Everything," (with A.B. Whinston) Exec! Online, July 1998.

- 6. "Banking on Monte Carlo," (with L. Hightower and A.G. Sogomonian) Energy and Power Risk Management, vol. 2 No. 5, 1997,12-14.
- 7. "Satellieten breiden Kommunikatiemogelijkheden uit," (in Dutch), De Financieel-Ekonomische Tijd, (leading Belgian Economic Newspaper) August 18, 1987, p. 4.

### **WORKING PAPERS and PAPERS UNDER REVIEW**

- 1. "Hedging Supply Chain Risk through Buyback Contracts with Linear Prices," (with Q. Liu): in preparation, target journal: Management Science.
- 2. "An Economic Analysis of Online Advertising Using Behavioral Targeting," (with J. Chen), MIS Quarterly, revise and resubmit.
- 3. "Green Vehicle Innovation and Its Impact on Market Value," (with S. Ba and Q. Liu), POM journal, revise and resubmit.
- 4. "Analysis and experiment with a Bundle Voting Mechanism," (with S. Ba) under revision.
- 5. "K-Optimal Randomization Tests for Association in Practical Metric Spaces Using Nearest Neighbor Methods," (with J.B. MacQueen).

### REFEREED CONFERENCE PROCEEDINGS

- 1. "Balancing IT with the Human Touch: Optimal Investment in IT-based Customer Service," (with S. Ba and J. Zhang) Proceedings of the Workshop on Information Technology and Systems (WITS) 2008.
- 2. "Supply Chain Coordination Using Buyback Contracts with Risk-Averse Retailers," (with Q. Liu) Proceedings of the 2008 MSOM conference.
- 3. "Optimal Buyback Contracts for Supply Chain Coordination with a Risk-Averse Retailer," (with Q. Liu) Proceedings of the POMS 2008 conference.
- 4. "A Continuous Auction Model for Stochastic Grid Resource Allocation and Pricing," (with R. Bapna, S. Das and R. Garfinkel) Proceedings of the Workshop on Information Technology and Systems (WITS) 2006. (nominated for **Best Paper Award**).

- 5. "Brand Recognition, Service Quality and Price Competition," (with S. Ba and Z. Zhang), Proceedings of the 7<sup>th</sup> International Conference on Electronic Commerce (ICEC2005), Xi'an, China 2005.
- 6. "Market Design for Grid Computing," (with R. Bapna, S. Das and R. Garfinkel), Proceedings of the Workshop on Information Technology and Systems (WITS) 2004.
- 7. "The Design and Operation of a System to Analyze After-Hour Stock Market Behavior," (with M. Fan and A.B. Whinston), Proceedings of the Workshop on Information Technology and Systems (WITS) 1999.
- 8. "Market Mechanisms and Service Quality in Electronic Commerce," (with M. Parameswaran and A.B. Whinston) Proceedings of the 1st International Conference on Telecommunications and Electronic Commerce, Vanderbilt University, 1998, 3-14.
- 9. "Mobile Agents and Mobile Workers," (with R. Kalakota and A.B. Whinston), Proceedings of the 29th Annual Hawaii International Conference on System Sciences, Vol. III 1996, 354-365.

## **CONFERENCE and INVITED PRESENTATIONS**

- Invited Presentation "Balancing IT with the Human Touch Optimal Investment in IT-based Customer Service," Univ. of Washington, April 16, 2010.
- Invited Presentation "A Clock Auction Market for Grid Computing," INFORMS, Oct 11, 2009.
- Invited Presentation "Balancing IT and the Human Touch," HKUST, June 2, 2009
- Panel Participant "New Directions for IS Research," CSWIM Conference, Guangzhou, China, June 27-28, 2009.
- Invited Presentation "On-line Price Dispersion" Fudan University, Shanghai, May 11, 2009.
- Conference Presentation "New Trends: Grid Computing," The 3<sup>rd</sup> Sino-U.S. E-Commerce Advanced Forum, Tianjin China, June 3-5 2006.
- Invited Presentation "Equitable Auction Mechanisms and Auctions with Prices," Univ. of Maryland, May 14, 2004.
- Invited Presentation "Distributed Decision Support Systems with application to Supply Chains" Universität Mannheim, Mannheim, Germany, June 26, 2003.
- Invited Presentation "Decentralized Mechanism Design for Managing Supply chains" University of Connecticut, Storrs, April 2002.
- Invited Presentation "Decentralized Mechanism Design for Managing Supply chains" Naval Postgraduate School, Monterey, April 2002.

- Invited Presentation "Electronic Markets and the Logistics of Digital Products," (with M. Parameswaran and A.B. Whinston) First IAC Workshop on Internet Based Negotiation Technologies (sponsored by the IBM Institute for Advanced Commerce) Yorktown Heights, NY, March 18-19, 1999
- Invited Presentation "Market Mechanisms and Service Quality in Electronic Commerce," 1st International Conference on Telecommunications and Electronic Commerce, Vanderbilt University, Nov. 1998.
- Invited Presentation "Optimal Investment in Knowledge using a Market Mechanism," Information Systems Research Colloquium, Anderson School, UCLA, Sept. 24, 1998.
- Invited Participant "NSF Workshop: Research Priorities in Electronic Commerce," Sept. 10-12 1998, Austin, Texas.
- Invited Presentation, "Course Scheduling at the Anderson School at UCLA," INFORMS National Meeting, Los Angeles, April 1995.
- Conference Presentation, "Strong Valid Inequalities for Fixed Charge Network Problems," ORSA/TIMS Joint National Meeting, Boston, May 1994.
- Invited Participant ORSA Doctoral Colloquium, University of Southern California, Los Angeles, November 1991.

### **HONORS, AWARDS and GRANTS**

- 2011: Award of **Best 2010 Publication in an IS journal** (ICIS Conference, Shanghai, Dec. 2011) for the paper "Why give away something for nothing? Investigating virtual goods pricing and permission strategies." (with S. Ba, D. Ke and J. Zhang).
- 2011: ACM Transactions on MIS **Best Paper Award of 2010:** "Why give away something for nothing? Investigating virtual goods pricing and permission strategies." (with S. Ba, D. Ke and J. Zhang).
- 2008-2009: School of Business, Univ. of Connecticut, **Best Paper Award** for "Online Price Dispersion: A Game Theoretic Perspective and Empirical Evidence," (with S. Ba and J. Zhang)
- 2007-2008: School of Business, Univ. of Connecticut, **Teaching Excellence Award** for Undergraduate Education
- 1999-2000: Dean's Fellowship (one-semester sabbatical), University of Texas at Austin
- 1999-2000: Principal Investigator (with A.B. Whinston) "Economic Mechanism for Network Resources Allocation," Intel Grant (\$52,000)
- 1997-1999: Associate Investigator "Electronic Commerce Networks," Technology for Education 2000, Grant provided to the University of Texas by Intel
- 1994-1996: Co-Principal Investigator "Tactical Picture Agent Accelerated Capabilities Initiative," Office of Naval Research Contract N00014-95-1-1206 (\$746,000).
- 1988-1992: UCLA Anderson School of Management Fellowship Award.

1988: Fulbright-Hays Award.

#### **PATENTS and INVENTIONS**

"Method and Apparatus for Bundled Asset Trading," Principal Inventor, U.S. Patent No. 6,035,287 (issued 3/7/2000).

"Apparatus for Trading of Bundled Assets including Bundle Substitution and Method therefor," Principal Inventor, U.S. Patent No. 7,124,106 (issued 10/17/2006).

### **COURSES DEVELOPED**

 Business Decision Modeling (MBA Elective), School of Business, UConn 2009.

- Statistics for Managers (Executive MBA Program), School of Business, UConn, 2003
- Database Management (Undergraduate level), School of Business, UConn, 2002-2003
- Data Communications (Undergraduate level), Marshall School, U.S.C., 2002
- eBusiness (Executive MBA Program), Marshall School, U.S.C., 2001
- Database Management (Undergraduate level), Marshall School, U.S.C., 2000-2002
- Management Information Systems (Non-required MBA Core course in IS), UCLA, 1998
- Introduction to Business Statistics (Undergraduate level), U.T. Austin, 1997, 1999-2000
- Management Science Seminar (PhD course), U.T. Austin, 1996
- Supply Chain Management (MBA Elective I.M. course), U.T. Austin, 1996
- Operations Research (Undergraduate Honors program), U.T. Austin, 1995
- Managing Information Technology (MBA Required Information Management course), U.T. Austin, 1995
- Principles of Hardware, Software and Telecommunications (MBA Required I.M. course), U.T. Austin, 1994
- Management Science (MBA Core course), UCLA, 1993
- Management Science (Undergraduate level), UCLA, 1992
- Introduction to Statistics (Undergraduate level), UCLA, 1992

### **UNIVERSITY SERVICES**

Dissertation Chair: Qindong Liu, Univ. of Connecticut

Dissertation Co-Chair: Sanjukta Das, Univ. of Connecticut

Dissertation Co-Chair: Sayee Srinivasan, Ming Fan, Manoj Parameswaran. Siwei Gu, Mu Xia, University of Texas

Served as a member on numerous dissertation committees in Economics, Library and Information Science, Management Science and Management departments at the University of Texas at Austin.

Elected Extended Budget Council member, Dept. of Management Science and Information Systems, Univ. of Texas at Austin, 1997-1998.

Faculty Performance Review Committee, Dept. of Information and Operations Management, Univ. of Southern California, 2000-2001

Promotion and Tenure Review Committee, Dept. of Operations and Information Management, UConn, 2002-2003.

Faculty Recruiting Committee, Dept. of Operations and Information Management, UConn, 2003-2004.

Masters Program Development Committee, School of Business, UConn, 2003-2004.

Ph.D. Committee, School of Business, UConn, 2004-2005.

ExecMBA Program Redesign Committee, School of Business, UConn, 2004-2005.

## **PROFESSIONAL ACTIVITIES**

# Program Chair:

 Conference on Information Systems and Technologies (CIST, INFORMS), San Jose, Nov. 16-17, 2002.

# Program Committee:

- CSWIM, 2012, Beijing, China.
- CSWIM, 2011, Harbin, China.
- WEB, Workshop on eBusiness, St Louis, MO, 2010
- Agent-based Grid Computing, 7th IEEE International Symposium on Cluster Computing and the Grid (CCGrid 2007)", Rio de Janeiro, Brazil, May 14-17, 2007.
- Agent-based Grid Computing, 6th IEEE International Symposium on Cluster Computing and the Grid (CCGrid 2006)", Singapore, May 16-19, 2006.
- 3<sup>rd</sup> Sino-US E-Commerce Advanced Forum, Tianjin, China, June 3-5, 2006.

## Cluster Chair:

- Organized Electronic Commerce cluster for INFORMS Fall 2000 meeting in San Antonio
- Organized Electronic Commerce cluster for INFORMS Fall 1997 meeting in Dallas.

## Session Chair:

- "Economic Product Implications of Electronic Commerce" INFORMS Nat. Meeting, Dallas October 1997.
- Informs Computing Society cluster, Salt Lake City, May 7-10, 2000

#### **EDITORIAL ACTIVITIES**

- Departmental Editor, Electronic Commerce Research and Applications (2009- 2012)
- Associate Editor Information systems Research (2009 2012), Decision Support Systems (2004 - )
- Guest Editor Journal of Information Technology and Management,
  Special Issue on IT-Enabled Transformations
- Associate Editor Management Science Special Issues on eBusiness (2001-2002)
- Editorial Board Decision Sciences (2004-2008), Journal of Database Management (2001-2008), Electronic Commerce Research and Applications (2008-)

- Refereed numerous journal articles for:
  - > Management Science
  - > Information Systems Research
  - > Operations Research
  - > European Journal of Operational Research
  - > Mathematical Programming
  - > Journal of Organizational Computing and Electronic Commerce
  - Decision Sciences
  - Decision Support Systems
  - > IIE Transactions
  - > Marketing Science
  - Auditing: A Journal of Practice and Theory
- Reviewer ICIS, HICCS

## **CONSULTING PROJECTS**

2000:

System for scheduling Call Center personnel.
Design of a scheduling method for sequencing the final test of semi-conductor devices for a major semi-conductor
manufacturer.
Design of a frequency allocation method for low-orbit satellites for a major defense company.
Design and implementation of a truck routing/scheduling Decision Support System for the distribution of fuel for a large oil company.
Modeling and implementation of a capital allocation and investment selection problem for oil exploration projects (now in use by more than twenty major oil companies).
Design and implementation of a timetable system for course scheduling at the Anderson School of Management: algorithmic design and implementation (presently still in use).
Design and implementation of an interface for a large-scale production-distribution optimization problem for a food company (with INSIGHT, Inc.)

Implementation of an Optimization-based Decision Support