

Hanqin Zhang

Professor

Department of Decision Sciences

Business School, National University of Singapore

Email: bizzhq@nus.edu.sg Phone: (65) 6516 6266

Education:

- 1988-1991 Ph.D. in Operations Research, Institute of Applied Mathematics, Chinese Academy of Sciences (CAS), Beijing, China;
- 1983-1986 M.S. in Applied Mathematics, Dept. of Appl. Math., Xi'an Jiaotong University, China;
- 1978-1981 Graduate Certification, in Mathematics, Dept. of Math., Chengde Normal Institute, Hebei Province, China.

Academic Appointments:

- 2011– Professor at Business School, National University of Singapore;
- 2009–2010 Visiting Professor at Business School, National University of Singapore;
- 2000–2008 Professor at Academy of Mathematics and Systems Science, CAS;
- Oct. 2005 Visiting Professor at Department of Industrial Engineering, Dalhousie University, Canada;
- 2001-2002 Visiting Scholar at the School of Management, the University of Texas at Dallas, USA;
- 2000-2001 Visiting Scholar at Department of Systems Engineering and Engineering Management, the Chinese University of Hong Kong, Hong Kong;
- 1997-1999 Professor at Institute of Applied Mathematics, CAS, China
- 1997-1998 Visiting Scholar at the School of Management, the University of Texas at Dallas, USA;
- 1996-1997 Research Associate at Faculty of Management, the University of Toronto, Canada;
- 1995-1996 Research Associate at Faculty of Commerce and Business Administration, the University of British Columbia, Canada;
- 1994-1995 Postdoctoral Fellow at Faculty of Commerce and Business Administration, the University of British Columbia, Canada;
- 1992-1994 Postdoctoral Fellow at Institute of Applied Mathematics, CAS, China

1991-1992 Postdoctoral Fellow at Department of Mathematics and Information,
Marburg University, Germany;

1986-1988 Lecturer at Dept. of Math., Hebei Institute of Technology, China;

1981-1983 Teaching Assistant at Dept. of Math., Chengde Normal Institute,
China.

Honors and Awards:

- 2003 Academic Excellence Award for One-Hundred Talents Program of CAS
- 1999 Distinguished Young Investigator Grant(China)
- 1999 One-Hundred Talents Program of CAS(China)
- 1999 The Chinese Distinguished Experts' Award
- 1996 Fellowship provided by the NSERC Grant A4619(Canada)
- 1995 Fellowship provided by the NSERC Grant(Canada)
- 1994 Fellowship provided by the NSERC Grant(Canada)
- 1993 Fellowship provided by the Chinese Postdoctoral Foundation(China)
- 1991 Fellowship provided by DAAD-K.C. Wong Foundation(Germany)

Teaching Experience:

2011- Lecture on "*Stochastic Models in Management*";

2009-2010 Lectures on "*Management Science*" and "*Advanced Stochastic Processes*";
at National University of Singapore, Singapore;

2001-2007 Lectures on "*Operations Research*" and "*Stochastic Models*"
for graduate courses at the Graduate School, CAS;

1998-1999 Lectures on "*Operations Management*" and "*Statistics*"
for undergraduate course at University of Texas at Dallas, USA;

1986-1988 Lectures on "*Operations Research*" and "*Applied Probability Theory*"
for graduate courses, and "*Probability and Statistics*" for a
undergraduate course at Hebei Institute of Technology, China;

1981-1983 Teaching Assistant on "*Calculus*", "*Linear Algebra*" and
"*Elementary Probability*" for undergraduate courses at Chengde Normal
Institute, China.

Postdoctoral Fellows Supervised:

- Jiankui Yang (Ph.D., Nanjing University, China, 2004), postdoctoral research in stability and diffusion approximation for queueing networks, September 2004–September 2006
- Mingzheng Wang (Ph.D., Dalian University of Technology, China), postdoctoral research in supply chain management, September 2004–September 2006
- Haibo Yu (Ph.D., Xi’an Jiaotong University, China, 2002), postdoctoral research in algorithms in queueing networks, September 2002–September 2004

Doctoral Dissertations Advised

- Yumei Hou (Ph.D., Academy of Mathematics and Systems Science, CAS, 2003) “The Effect of Leadtime and Demand Uncertainties in (r, Q) and (s, S) Inventory Systems”
- Minghui Xu (Ph.D., Academy of Mathematics and Systems Science, CAS, and Wuhan University, China, 2004) “Disruption Management in Supply Chain under Asymmetric Information”
- Lei Yang (Ph.D., Academy of Mathematics and Systems Science, CAS, and Wuhan University, China, 2005) “Inventory Control and Risk Management in Supply Chain”
- Yongjiang Guo (Ph.D., Academy of Mathematics and Systems Science, CAS, 2006) “On Stability of Re-entrant Line with Infinite Supply”
- Xuewu Wang (Ph.D., Academy of Mathematics and Systems Science, CAS, 2007) “Retailer Procuring Fast Delivery in Supply Chain and Optimization in Assemble-to-Order Systems”
- Dacheng Yao (Ph.D., Academy of Mathematics and Systems Science, CAS, 2010) “Inventory Control Problem with Brownian Motion Demand”

Academy Committees

- Director, Division of Operations Research, Institute of Applied Mathematics, Academy of Mathematics and Systems Science, CAS (2007–)
- Director, Center for Decision Making under Uncertainties, Academy of Mathematics and Systems Science, CAS (2002–)

- Member, Academic Committee, Academy of Mathematics and Systems Science, CAS(2007-)
- Member, Academic Exchange Committee, Academy of Mathematics and Systems Science, CAS (2002–2007)
- Deputy Chair, Academic Committee, Institute of Applied Mathematics, Academy of Mathematics and Systems Science, CAS (2007–)

Other Professional Activities

- A Counsel Member at *Applied Probability Society, INFORMS* (2010–)
- Vice President, *the Operations Research Society of China* (2008–)
- Secretary-General, *the Operations Research Society of China* (2004–2008)
- Member, Organization Committee, the *12th INFORMS/APS Conference*, June 23–25, 2004, Beijing
- Co-chair of Organization Committee, Summer Workshop on *Stochastic Models of Supply Chain and Logistics*, July 18–20, 2005, Beijing
- Co-chair of Organization Committee, Summer Workshop on *Stochastic Models in Management Science/Operations Research*, August 13–17, 2006, Beijing
- Member, Meeting Committee, *INFORMS International Conference*, June 25–28, 2006, Hong Kong
- Co-chair of Organization Committee, Summer Workshop on *Frontiers of Research in Supply Chain Management*, June 14–16, 2007, Beijing
- Member, Organization Committee, *INFORMS/MSOM Conference*, June 18–19, 2007, Beijing

Editorial Boards

- Associate Editor, *Acta Mathematicae Applicatae Sinica* (English Series and Chinese Series) (2001–present)
- Guest Editor, *Annals of Operations Research*, **Vol.135**(2005); **Vol.160**(2008)
- Associate Editor, *Asia-Pacific Journal of Operational Research* (2004–present)

- Member, Editorial Board, *European Journal of Operational Research* (2007–)
- Associate Editor, *IEEE Transactions on Automatic Control* (2002–2003)
- Editor, *Journal of Systems Science and Complexity* (2001–2005; 2009–)
- Editor, *Journal of Mathematics and Systems Science* (2001–)
- Member, Editorial Board, *Mathematical Methods of Operations Research* (2007–2009)
- Associate Editor, *TOP* (an Official Journal of the Spanish Society of Statistics and Operations Research) (2007–)

Referee for:

- *Operations Research*;
- *Management Science*;
- *Manufacturing & Service Operations Management*;
- *Mathematics of Operations Research*;
- *Operations Research Letters*;
- *Annals of Operations Research*;
- *European Journal of Operational Research*;
- *Journal of Operational Research of Society*;
- *Journal of Optimization Theory and Applications*;
- *IIE Transactions*;
- *Annals of Applied Probability*;
- *Advances in Applied Probability*;
- *Journal of Applied Probability*;
- *Queueing Systems: Theory and Applications*;
- *SIAM Journal on Applied Mathematics*;

- *IEEE Transactions on Automatic Control*;
- *International Journal of Production Research*;
- *Decision Sciences*;
- *Discrete Even Dynamic Systems: Theory and Applications*.

Professional Society Membership

- INFORMS

Research Interests:

- Stochastic Networks and Queues;
- Supply Chain Management;
- Stochastic Manufacturing Systems;
- Algorithms in Stochastic Models;
- Stochastic Models and Applied Probability.

Major International Journal Papers (appeared)

Stochastic Networks and Queues

- [1] A simple proof of diffusion approximations for LBFS re-entrant lines, *Operations Research Letters*, **Vol.34**(2006), 199-204. (with J.G. Dai, Jiankui Yang, and Jian-Gong You)
- [2] Monotonicity and convexity of some functions associated with denumerable Markov chains and their applications to queueing systems, *Probability in the Engineering and Information Sciences*, **Vol.20**(2006), 67-86. (with Qi-Ming HE and Haibo Yu)
- [3] Two-time-scale markov chains and applications to quasi-birth-death queues, *SIAM Journal on Applied Mathematics*, **Vol.65**(2005), 567-586. (with G. Yin)
- [4] Heavy traffic limit theorems in fluid buffer models, *Journal of Systems Science and Complexity*, **Vol.17**(2004), 1-15. (with G. Yin)

- [5] Countable-state-space Markov chains with two time scales and applications to queueing systems, *Advances in Applied Probability*, **Vol.34**(2002), 662–688. (with G. Yin)
- [6] Diffusion approximations for some multiclass queueing networks with FIFO service disciplines, *Mathematics of Operations Research*, **Vol.25**(2000), 679-707. (with Hong Chen)
- [7] A sufficient condition and a necessary condition for the diffusion approximations of multiclass queueing networks under priority service disciplines, *Queueing Systems*, **Vol.34**(2000), 237-268. (with Hong Chen)
- [8] Stability of multiclass queueing networks under priority service disciplines, *Operations Research*, **Vol.48**(2000), 26-37. (with Hong Chen)
- [9] Diffusion approximations for the Kumar-Seidman network under priority service discipline, *Operations Research Letters*, **Vol.23**(1998), 171-181. (with Hong Chen)
- [10] Strong approximations of irreducible closed queueing networks, *Advances in Applied Probability*, **Vol.29**(1997), 498-522.
- [11] Stability of multiclass queueing networks under FIFO service discipline, *Mathematics of Operations Research* **Vol.22**(1997), 691-725. (with H. Chen)
- [12] On Whitt’s conjecture for queues in which service times and interarrival times depend linearly and randomly upon waiting times, *Queueing Systems*, **Vol.22**(1996), 345-366.
- [13] Diffusion approximations for re-entrant lines with a first-in-first-served priority discipline, *Queueing Systems*, **Vol.23**(1996), 177-195. (with H. Chen)
- [14] Heavy traffic limit theorems for a sequence of shortest queueing systems, *Queueing Systems*, **Vol.21**(1995), 217-238. (with Guang-Hui Hsu and Rongxin Wang)
- [15] Note on the strong limiting behavior of busy periods in $GI/G/1$ queues under heavy traffic, *Journal of Applied Probability*, **Vol.30**(1993), 483-489. (with Josef Steinebach)
- [16] Strong approximations for priority queues: head-of-the-line-first discipline, *Queueing Systems*, **Vol.10**(1992), 213-234. (with Guang-Hui Hsu)
- [17] Strong approximations for multiple channels in heavy traffic, *Journal of Applied Probability*, **Vol.27**(1990), 658-670. (with Guang-Hui Hsu and Rongxin Wang)

- [18] Heavy traffic limit theorems for a queueing system in which customers join the shortest line, *Advances in Applied Probability*, **Vol.21**(1989), 451-469. (with Rongxin Wang)

Supply Chain Management

- [19] Risk analysis of commitment-option contracts with forecast updates, *IIE Transactions*, **Vol.43**(2011), 415-431. (with Buzacott J. and H. Yan)
- [20] The effect of lead time and demand uncertainties in (r, q) inventory systems, *Operations Research*, **Vol.58**(2010), 68-80. (with Jing-Sheng Song, Yumei Hou and Mingzhen Wang)
- [21] A supply chain with a service requirement for each market signal, *Production and Operations Management*, **Vol.16**(2007) 322-342. (with Sethi S., Houmin Yan and Jing Zhou)
- [22] A production-inventory problem for an energy buy-back program, *IEEE Transactions on Automation Science and Engineering*, **Vol.4**(2007), 395-406. (with F. Chen and S. Sethi)
- [23] Modeling and analysis of a supply-assembly-store chain, *European Journal of Operational Research*, **Vol.176**(2007), 275-294. (with Qiming HE, Deju Xu, and Xiaobo Zhao)
- [24] Are base-stock policies optimal in inventory problems with multiple delivery modes? *Operations Research*, **Vol.54**(2006), 801-807. (with Qi Feng, Suresh Sethi and Houmin Yan)
- [25] Coordinating dyadic supply chains when production costs are disrupted, *IIE Transaction*, **Vol. 38**(2006), 765-775. (with X. Qi, Minghui Xu, and Gang Yu)
- [26] Optimality and nonoptimality of the base-stock policy in inventory problems with multiple delivery modes. *Journal of Industrial and Management Optimization*, **Vol.2**(2006), 19-42. (with Q. Feng, G. Gallego, Suresh Sethi, H. Yan and J. Yan)
- [27] An analysis of staged purchase in deregulated time-sequential electricity markets, *Journal of Industrial and Management Optimization*, **Vol.1**(2005), 443-463. (with Suresh Sethi, H. Yan and J. Yan)
- [28] Information updated supply chain with service-level constraints, *Journal of Industrial and Management Optimization*, **Vol.1**(2005), 513-531. (with Suresh Sethi and H. Yan)

- [29] Performance analysis on a complex remanufacturing system, *Asia-Pacific Journal of Operational Research*, **Vol.22**(2005), 327-347. (with Yumei Hou)
- [30] A periodic review inventory model with three delivery modes and forecast updates, *Journal of Optimization Theory and Applications*, **Vol.124**(2005), 137-155. (with Qi Feng, G. Gallego, Suresh Sethi and Houmin Yan)
- [31] Analysis of a duopoly supply chain and its application in electricity spot market, *Annals of Operations Research*, **Vol.135**(2005), 239-259. (with Suresh Sethi and Houmin Yan)
- [32] Quantity flexibility contracts: optimal decisions with information updates, *Decision Sciences*, **Vol.35**(2004), 691-712. (with Suresh Sethi and H. Yan)
- [33] Inventory Models with Fixed Costs, Multiple Delivery Modes and Forecast Updates, *Operations Research*, **Vol.51**(2003), 321-328. (with Suresh Sethi and Houmin Yan)
- [34] Peeling layers of an onion: a periodic review inventory model with multiple delivery modes and forecast updates, *Journal of Optimization Theory and Applications*, **Vol.108**(2001), 253-281. (with Suresh Sethi and Houmin Yan)

Stochastic Manufacturing Systems

- [35] Trading a mean-reverting asset: buy low and sell high, *Automatic*, **Vol.44**(2008), 1511-1518. (with Qing Zhang)
- [36] Asymptotically optimal production policies in dynamic stochastic jobshops with limited buffers, *Journal of Mathematics Analysis and Applications*, **Vol.317**(2006), 398-428. (with Yumei Hou, S. Sethi and Qing Zhang)
- [37] Asymptotic optimality of hierarchical controls in stochastic manufacturing systems: a survey, *Manufacturing & Service Operations Management*, **Vol.4**(2002), 133-170. (with S. Sethi, H. Yan and Q. Zhang)
- [38] Average cost optimal policy for a stochastic two-machine flowshop with limited work-in-process, *Nonlinear Analysis: Theory, Methods & Applications*, **Vol.47**(2001), 5671-5678. (with A. Bisi, E. Presman and S. Sethi)
- [39] Average cost optimality for an unreliable two-machine flowshop with limited buffers. *Annals of Operations Research*, **Vol.98**(2000), 333-351. (with A. Bisi, E. Presman and Suresh Sethi)

- [40] Asymptotic optimality of hierarchical controls in stochastic manufacturing systems: a review, *Electronic Journal of INFORMS*, **Vol.3**, No 2, 2000.
(<http://www.itomrs.pubs.informs.org>). (with Suresh Sethi, Houmin Yan and Qing Zhang)
- [41] Hierarchical production control in a stochastic N -machine flowshop with long-run average cost, *Journal of Mathematics Analysis and Applications*, **Vol.251**(2000), 285-309. (with S. Sethi and Qing Zhang)
- [42] Optimal production rates in a deterministic two-product manufacturing system, *Optimal Control: Applications and Methods*, **Vol.21**(2000), 125-135. (with S. Sethi and Qing Zhang)
- [43] Hierarchical production control in dynamic stochastic jobshops with long-run average cost, *Journal of Optimization Theory and Applications*, **Vol.106**(2000), 231-264. (with S. Sethi and Qing Zhang)
- [44] Hierarchical production control in a stochastic N -machine flowshop with limited buffers, *Journal of Mathematics Analysis and Applications*, **Vol.246**(2000), 28-57. (with S. Sethi and Qing Zhang)
- [45] Optimal production planning in a stochastic N -machine flowshop with long-run average cost. *Proceedings of Indian Academy of Sciences*, December, 1999, 121-140. (with E. Presman, S. Sethi, and Q. Zhang)
- [46] Average-cost optimal policies for a stochastic flexible multiproduct system, *International Journal of Flexible Manufacturing Systems*, **Vol.11**(1999), 147-157. (with Suresh Sethi)
- [47] Optimality of zero-inventory policies for an unreliable manufacturing system producing two part types, *Journal of Dynamics of Continuous, Discrete and Impulsive Systems*, **Vol.4**(1998), 485-496. (with E. Presman, Suresh Sethi and Qing Zhang)
- [48] Minimum average-cost production planning in stochastic manufacturing systems, *Mathematical Models and Methods in Applied Sciences*, **Vol.8**(1998), 1251-1276. (with Suresh Sethi and Qing Zhang)
- [49] Hierarchical production controls in a stochastic manufacturing system with long-run average cost, *Journal of Mathematics Analysis and Applications*, **Vol.214**(1997), 151-172. (with Suresh Sethi and Qing Zhang)

Algorithms in Stochastic Models

- [50] Algorithms for Coxianization of PH-generators, *INFORMS Journal on Computing*, **Vol.23**(2011), 153-164. (with He Qi-Ming and J. Xue)
- [51] An algorithm for computing minimal Coxian representations, *INFORMS Journal on Computing*, Vol.**20**(2008), 179-190. (with Qi-Ming HE)
- [52] An Algorithm for computing Coxian representations of Coxian distributions as approximations of phase type distributions and matrix-exponential distributions. *Journal of Calcolo*, Vol.**44**(2007), 235-264. (with Qi-Ming HE)
- [53] PH-invariant polytopes and Coxian representations of phase type distributions, *Stochastic Models*, **Vol.22**(2006), 383-409. (with Qi-Ming He)
- [54] Spectral polynomial algorithms for computing bi-diagonal representations for phase-type distributions and matrix-exponential distributions, *Stochastic Models*, **Vol. 22**(2006), 289-317. (with Qi-Ming He)
- [55] A note on unicyclic representations of phase type distributions, *Stochastic Models*, **Vol.21**(2005), 465-483. (with Qi-Ming He)

Stochastic Models and Applied Probability

- [56] The algebraic degree of phase-type distributions, *Journal of Applied Probability*, **Vol.47**(2010), 611-629. (with Fackrell, M., He, Q. and P. Taylor)
- [57] Discrete-time Markov chains with two time scales: limit results and applications. *Stochastics*, Vol.**80**(2008), 339-368. (with G. Yin)
- [58] On matrix-exponential distributions, *Advances in Applied Probability*, **Vol.39**(2007), 271-292. (with Qi-Ming HE)
- [59] Singularly perturbed Markov chains: Limit results and applications, *Annals of Applied Probability*, **Vol.17**(2007), 207–229. (with George Yin)
- [60] On the speed of convergence of rare events to the exponential distributions, *Probability in the Engineering and Information Sciences*, **Vol.16**(2002), 121-128. (with Wei Li)
- [61] On a weighted embedding for generalized pontograms, *Stochastic Processes and Their Applications*, **Vol.88**(2000), 213-224.
- [62] A new proof of the invariance principle for renewal processes, *Sankhya A*, **Vol.56**(1994), 375-378. (with Guang-Hui Hsu)

- [63] On a weighted embedding for pontograms, *Stochastic Processes and Their Applications*, **Vol.47**(1993), 183-197. (with Josef Steinebach)
- [64] A new proof of the equivalence of almost sure stability and 1-complete stability, *Utilitas Mathematica*, **Vol.39**(1991), 219-224. (with Rongxin Wang)

Books:

- [1] *Inventory and Supply Chain Management with Forecast Updates*. Springer's International Series in Operations Research & Management Science, Vol.81, Springer-Verlag, New York, 2005. (with S. Sethi and Houmin Yan)
- [2] *Average-Cost Control of Stochastic Manufacturing Systems*. Series: Stochastic Modelling and Applied Probability, Vol. 54. Springer-Verlag, New York, 2004. (with S. Sethi and Qing Zhang)
- [3] *Stochastic Modeling and Optimization*, D. Yao, H. Zhang, and X. Zhou, editors, Springer-Verlag, New York, 2003.

Chinese Journal Papers:

- [1] Game analysis in a supply chain with service provision, *Journal of Management Sciences in China*, **9**(2006), 18-27. (with Minghui Xu and Gang Yu)
- [2] On the stability of a simple re-entrant line with infinite supply, *OR Transactions*, **10**(2006), 75-85. (with Yongjiang Guo)
- [3] CVaR in a newsvendor model with lost sale penalty cost, *Systems Engineering—Theory and Practice*, **XXVI**(2006), 1–8. (with Minghui Xu and Gang Yu)
- [4] Stochastic comparison on queueing system with batch arrival, *Acta Mathematicae Applicatae Sinica*, **29**(2006), 398-404. (with Qi-Ming HE and Haibo Yu)
- [5] On the approximations in queueing models: weak convergence methods, *Chinese Journal of Operations Research*, **18**(1994), 27-37.
- [6] On the approximations in queueing models: strong approximation methods, *Chinese Journal of Operations Research*, **18**(1994), 38-50.
- [7] Strong approximations for the open queueing network in heavy traffic, *Sciences in Sinica*, **Vol. 35**(1992), Series A, 521-535. (with Guang-Hui Hsu)

- [8] Heavy traffic limit theorems for general multiple channel queues, *Acata Mathematica Sinica*, **Vol. 33**(1990), 646-655. (with Rongxin Wang)

Book Chapters:

- [1] An Optimal Inventory-Price Coordination Policy, in *Advances in Statistics, Probability and Actuarial Science*, Festschrift in Honor of R. J. Elliott. World Scientific Publishing Co. 2011 (with Qing Zhang)
- [2] Optimal Production Policy in a Stochastic Manufacturing System, in *Stochastic Processes, Optimization, and Control Theory Applications: A Volume in Honor of Suresh Sethi*, H. Yan, Q. Zhang and G. Yin (Eds.), Springer-Verlag, 2006, (with Y. Guo)
- [3] Information Revision and Decision Making in Supply Chain Management, *Stochastic Modeling and Optimization*, D. Yao, H. Zhang, and X. Zhou (Eds.), Springer-Verlag, New York, 2003. (with Houmin Yan)
- [4] On Optimality of Stochastic N-Machine Flowshop with Long-Run Average Cost, *Stochastic Theory and Control, Proceedings of a Workshop held in Lawrence, Kansas, October 18-20, 2001*, *Lecture Notes in Control and Information Sciences*, Vol. 280, B. Pasik-Duncan (Ed.), Springer-Verlag, Berlin Heidelberg, 2002, 399-417. (with E. Presman, S. Sethi, Q. Zhang)
- [5] Turnpike Set Analysis in Stochastic Manufacturing Systems with Long-Run Average Cost, in *Optimal Control and Partial Differential Equations in Honour of Professor Alain Bensoussan's 60th Birthday*, J.L. Menaldi, E. Rofman, and A. Sulem (Eds.), IOS Press, Amsterdam, 2001, 414-423. (with S. Sethi, H. Yan and Q. Zhang)
- [6] Optimal production planning in general stochastic jobshop with long-run average cost, *Optimal Controls: Theory and Application in Production Management*, Festschrift in Honor of Gustav Feichtinger, Springer-Verlag, May, 2000. (with E. Presman and Suresh Sethi)
- [7] Hierarchical Production Controls for a Stochastic Manufacturing System with Long-Run Average Cost: Asymptotic Optimality, *Stochastic Analysis, Control, Optimization and Applications: A Volume in Honor of W. H. Fleming*, in *Systems and Control: Foundations and Applications* series, W. M. McEneaney, G. Yin, and Q. Zhang (Eds.), Birkhäuser, Boston, 1998. (with Suresh Sethi)

- [8] Strong approximations in stochastic difference equations and their applications in queueing theory, *Stochastic Dynamical Systems: Theory and Applications*, Eds. V. Korolyuk, G. Kulldorff, D. Silvestrov and A. Svishchuk, **Vol.2**(1996), 294-304. (with Josef Steinebach)

Refereed Proceedings:

- [1] Demand allocation analysis for energy purchaser in deregulated energy markets, *the Proceedings of International Conference on Electric Utility Deregulation and Restructuring, and Power Technology 2000*, London, U.K., April, 2000, 344-348. (with Houmin Yan and J. Yan)
- [2] Optimal production planning in a stochastic N -machine flowshop, *Proceedings of the Second International Conference of Mathematics to Science and Engineering*, Casablanca, October, 1998, 704-711. (with E. Presman and Suresh Sethi)
- [3] Analysis of average cost optimality for an unreliable two-machine flowshop, *Proceedings of the Fourth International Conference on Optimization Techniques and Applications*, Curtin University of Technology, Perth, Australia, July 1-3, 1998, 94-112. (with E Presman, Suresh Sethi, and Qing Zhang)
- [4] Strong approximations for an open queueing network in heavy traffic, *Proceedings of the Second Ukrainian Conference*, November, 1992, 301-314. (with Josef Steinebach)
- [5] Strong approximations for a special queueing network, *Proceedings of the Second Conference of the Association of Asian-Pacific Operational Research Societies (APORS) within IFORS*, Beijing, August, 1991, 261-268. (with Guang-Hui Hsu)