

March 2008

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Industrial Engineering and Operations Research
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Research Interests

- Modeling and Analysis of Production Control and Scheduling Systems
- Design and Analysis of Algorithms
- Analysis of Integrated Supply Chain Management Models
- Integration of Production and Distribution Strategies

Education

NORTHWESTERN UNIVERSITY, EVANSTON, IL
Ph.D. (1997) Industrial Engineering and Management Sciences
Dissertation: *Probabilistic Analysis and Effective Algorithms for Large Scale Machine Scheduling Problems*
Advisor: David Simchi-Levi

NORTHWESTERN UNIVERSITY, EVANSTON, IL
M.S. (1995), Industrial Engineering and Management Sciences
Concentration: Production and Economics; *Minors:* Stochastic Processes, Optimization

COLUMBIA UNIVERSITY, NEW YORK, NY
B.S. (1989), Chemical Engineering

Academic Experience

UNIVERSITY OF CALIFORNIA, BERKELEY CA 1997-
Associate Professor 2003-Present Industrial Engineering and Operations Research
Assistant Professor 1997-2003 Industrial Engineering and Operations Research

NORTHWESTERN UNIVERSITY, EVANSTON IL SUMMER 1995
Instructor

Industrial Experience

S&C ELECTRIC CORPORATION, CHICAGO IL SUMMER 1994
Summer Intern

MERCK & COMPANY, RAHWAY, NJ 1989-1993
Process Supervisor
Production Supervisor

Honors

- National Science Foundation CAREER Award Winner, 2001
- 2000 McGraw-Hill Outstanding First Edition of the Year
- 2000 Institute of Industrial Engineers Outstanding Publication Award
- 2000 Institute of Industrial Engineers Joint Publishers Book of the Year Award
- 1996 MSOM Student Paper Contest Honorable Mention
- INFORMS 1996 Doctoral Colloquium Participant
- Northwestern University Walter P. Murphy Fellowship Recipient

**Publications
and
Submitted
Papers**

Kaminsky, P. and D. Simchi-Levi. 1998. A New Computerized Beer Game: A Tool for Teaching the Value of Integrated Supply Chain Management. *in Supply Chain and Technology Management*. Hau Lee and Shu Ming Ng, eds., The Production and Operations Management Society, pp. 216-225.

Kaminsky, P. and D. Simchi-Levi. 1999. Probabilistic Analysis and Practical Algorithms for the Flow Shop Weighted Completion Time Problem. *Operations Research* **46**, pp. 872-882

Simchi-Levi, D., P. Kaminsky, and E. Simchi-Levi. 2000. DESIGNING AND MANAGING THE SUPPLY CHAIN *Richard D. Irwin, Inc.: Homewood, IL and Boston*.

Simchi-Levi, D., P. Kaminsky, and E. Simchi-Levi. 2003. DESIGNING AND MANAGING THE SUPPLY CHAIN, SECOND EDITION *Richard D. Irwin, Inc.: Homewood, IL and Boston*.

Simchi-Levi, D., P. Kaminsky, and E. Simchi-Levi. 2008. DESIGNING AND MANAGING THE SUPPLY CHAIN, THIRD EDITION *McGraw-Hill: Boston*.

Kaminsky, P. and J. Swaminathan. 2001. Utilizing Forecast Band Refinement for Capacitated Production Planning. *Manufacturing & Service Operations Management* **3**, pp.68-81.

Kaminsky P. and D. Simchi-Levi. 2001. Asymptotic Analysis of an On-Line Algorithm for the Single Machine Completion Time Problem With Release Dates. *Operations Research Letters* **29**, pp 141-148.

Kaminsky P. and D. Simchi-Levi. 2001. The Asymptotic Optimality of the SPT Rule for the Flow Shop Mean Completion Time Problem. *Operations Research* **49** pp. 293-304.

Kaminsky, P. 2003. The Effectiveness of the Longest Delivery Time Rule for the Flow Shop Delivery Time Problem. *Naval Research Logistics* **50**(3) pp. 257-272

Kaminsky, P. and D. Simchi-Levi. 2003. Production and Distribution Lot Sizing in a Two-Stage Supply Chain. *IIE Transactions* **35**(11) pp. 1065-1075

Kaminsky, P. and D. Hochbaum. 2004. Due Date Quotation Models and Algorithms. *Handbook on Scheduling Algorithms, Methods, and Models*, Joseph Y. Leung (ed.), Chapman Hall/CRC, pp. 20.1-20.22

Kaminsky, P. and J. Swaminathan. 2004. Effective Heuristics For Capacitated Production Planning with Multi-Period Production and Demand With Forecast Band Refinement. *Manufacturing & Service Operations Management* **6** pp. 184-194.

Bulbul, K, P. Kaminsky, and C. Yano. 2004. Flow Shop Scheduling with Earliness, Tardiness and Intermediate Inventory Holding Costs. *Naval Research Logistics* **51** pp. 407-445.

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Simchi-Levi, D., P. Kaminsky, and E. Simchi-Levi. 2004. *MANAGING THE SUPPLY CHAIN: THE DEFINITIVE GUIDE FOR THE BUSINESS PROFESSIONAL McGraw-Hill Trade: New York.*

Ahn, H. and P. Kaminsky. 2005. Production and Distribution Policy in a Two Stage Stochastic Push-Pull Supply Chain. *IIE Transactions***37**, pp. 609-621.

Newman, A., C. Yano, and P. Kaminsky. 2005. Third Party Logistics Planning with Routing and Inventory Costs. In *Supply Chain Optimization* (J. Geunes and P. Pardalos, eds.), Kluwer Academic Publishers.

Bulbul, K, P. Kaminsky, and C. Yano. 2007. Preemption in Single Machine Earliness/Tardiness Scheduling. *Journal of Scheduling* **10**, pp.271-292.

Kaminsky, P. and O. Kaya. 2008. Combined Make-to-Order/Make-to-Stock Supply Chains. *To Appear in IIE Transactions.*

Ahn, H, M. Gumus, and P. Kaminsky. 2007. Pricing and Manufacturing Decisions When Demand is a Function of Prices in Multiple Periods. *Operations Research* **55** pp. 1039-1057.

Kaminsky, P. and O. Kaya. 2008. Scheduling and Due-Date Quotation in a MTO Supply Chain. *To appear in Naval Research Logistics.*

Kaminsky, P. and Z-H Lee. 2008. Asymptotically Optimal Algorithms for Reliable Due Date Scheduling. *To appear in Journal on Scheduling.*

Kaminsky, P. and O. Kaya. 2008. Inventory Positioning, Scheduling, and Lead Time Quotation in Supply Chains. *To appear in International Journal of Production Economics.*

Ahn, H, M. Gumus, and P. Kaminsky. 2007. Inventory, Periodic Discounts, and the Timing Effect. *Submitted for publication.*

Guo, X, P. Kaminsky, P. Tomecek, and M. Yuen. 2007. Optimal Spot Market Inventory Strategies in the Presence of Cost and Price Risk. *Submitted for publication.*

Proceedings

Chan, A., P. Kaminsky, A. Muriel, and D. Simchi-Levi. 1996. New Results for Flowshop and Parallel Machine Scheduling Problems. *Proceedings of the 1996 MSOM Conference Proceedings, Hanover, New Hampshire*, pp. 213-218.

Lee, Z-H, and P. Kaminsky. 2003. On-Line Algorithms for Due Date Quotation with Lateness Penalties. *Proceedings of the 2003 NSF Design, Service, and Manufacturing Grantees and Research Conference* pp. 3056-3069.

Kaminsky, P. and O. Kaya. 2005. Probabilistic Analysis and Practical Algorithms for Due Date Quotation. *Proceedings of the 2005 NSF Design, Service, and Manufacturing Research Conference.*

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Kaminsky, P, H-S Ahn, and O. Alper. 2005. Models and Algorithms for Integrated Multi-Stage Production/Distribution Problems. *Proceedings of the 2005 NSF Design, Service, and Manufacturing Research Conference*

Kaminsky, P. and O. Kaya. 2005. Centralized Versus Decentralized Scheduling and Due Date Quotation in a Make-to-Order Supply Chain. *Proceedings of the 2005 MSOM Conference.*

Kaminsky, P and H-S Ahn. 2006. Models and Algorithms for Integrated Multi-Stage Production/Distribution Systems: Third Party Logistics. *Proceedings of the 2006 NSF Design, Service, and Manufacturing Research Conference.*

Ahn, H-S., O. Alper, and P. Kaminsky. 2006. Effective Distribution Policies Utilizing Logistics Contracting. *Proceedings of the 2006 MSOM Conference.*

Hamzeh, F., I. D. Tommelein, G. Ballard, and P. Kaminsky. P. 2007. Logistics Centers to Support Project-based Production in the Construction Industry. *in Pasquire, C.L. and Tzortzopoulos, P. (editors)(2007). Proceedings of the 15th Annual Conference of the International Group for Lean Construction (IGLC 15), 18-20 July 2007, East Lansing, MI.*

Gumus, M, P. Kaminsky, E. Tiemroth, and M. Ayik. 2008. A Multi-stage Decomposition Heuristic for the Container Stowage Problem. *Proceedings of the 2008 MSOM Conference.*

Books

Simchi-Levi, Kaminsky, and Simchi-Levi. 2000, 2003, 2008. DESIGNING AND MANAGING THE SUPPLY CHAIN *Richard D. Irwin, Inc.: Homewood, IL and Boston.*
This book, intended for students, managers, and consultants in logistics-related fields, presents modern trends and concepts in Supply Chain Management. The authors were awarded the 2000 IIE Outstanding Publication Award and the Joint Publishers Book of the Year Award, as well as the 2000 McGraw-Hill Outstanding First Edition award, for the first edition of this book. The second edition of the book covers many new and additional topics and concepts. In addition, a variety of new frameworks are developed, which help to put many of the supply chain management concepts into the appropriate context. The third edition adds over 100 pages of new topics and concepts

Simchi-Levi, Kaminsky, and Simchi-Levi. 2004. MANAGING THE SUPPLY CHAIN: THE DEFINITIVE GUIDE FOR THE BUSINESS PROFESSIONAL *McGraw-Hill Trade: New York.*
Introduces the business professional to important supply chain management concepts.

Software Developed

A DECISION SUPPORT SYSTEM FOR PRODUCTION SCHEDULING
System includes a database, schedule generator, and user interface module. Developed with D. Simchi-Levi.

THE COMPUTERIZED BEER GAME
Developed as a course software tool to demonstrate the value of information in the supply chain. Developed with D. Simchi-Levi.

THE RISK POOL GAME
Developed as a course software tool to demonstrate the value of risk pooling in inventory systems. Developed in Microsoft Visual Basic. Developed with D. Simchi-Levi.

**Courses
Taught**

- IEOR180 - Senior Project
- IEOR153 - Facility Design and Location
- IEOR153 - Supply Chain Management
- IEOR250 - Introduction to Production Planning and Logistics Models
- IEOR251 - Logistics and Facility Design
- IEOR199 - Designing and Managing the Supply Chain
- IEOR290 - Advanced Logistics Modeling
- IEOR298 - Supply Chain Management Seminar
- IEMS C26 - Engineering Economics (at Northwestern University)
- Executive Education - Strategies for Supply Chain Management

**Professional
Activities**

- Member, Institute for Operations Research and the Management Sciences (INFORMS)
- Member, Institute of Industrial Engineers
- Secretary, MSOM Subdivision of INFORMS, 2002-2003.
- Core Member, The UC Berkeley Supply Chain Management Initiative
- Current Associate Editor: *IIE Transactions*, *Naval Research Logistics*, *Management Science*
- Former Associate Editor: *IEEE Transactions on Automation Science and Engineering*, *Operations Research Letters*
- Senior Editor: *Productions and Operations Management*
- Referee: *Operations Research*, *Transportation Science*, *IIE Transactions*, *Naval Research Logistics*, *European Journal of Operational Research*, *Discrete Applied Mathematics*, *Operations Research Letters*, *National Science Foundation*, *The Internet Encyclopedia*, *Journal of Manufacturing Systems*, *Journal of Infrastructure Systems*, *M&SOM*
- Member, 1998, 1999, 2003 Nicholson Prize Committees
- Chair, 2003 Junior Faculty Interest Group Paper Competition; Member, 2006 and 2007 JFIG Paper Committees
- Chair, 2004 MSOM Student Paper Competition
- Member, 2002 INFORMS Doctoral Colloquium Organizing Committee
- Session Organizer: 2003 Informs Conference, 2004 Informs Conference, 2005 Informs Conference, 2006 Informs Conference
- Chair, 2008 Kuhn Award Committee (Best paper award for the NRL Journal)
- Member, Project Production Systems Laboratory
- Member, UC Berkeley IEOR Bioproduction Group

Funding

- OpenLink Fund in the Coleman Fung Risk Management Research Center (2008) “Integrated Approaches for Managing Risks in Energy Markets” \$63,917 (jointly with X. Guo).
- National Science Foundation (2004-2006) “Foundations for Bioproduction” \$150,000 (Co-PI with L. Schruben, R. Leachman, G. Shanthikumar).
- National Science Foundation (2002-2008) DMI-0200439 “Models and Algorithms for Integrated Multi-Stage Production/Distribution Systems” \$424,257 (Role: PI; H. Ahn is Co-PI).

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- National Science Foundation (2001-2007) DMI-0092854 “CAREER: Scheduling of Large Scale Systems” \$375,000 (Role: PI).
- Fair, Isaac and Company (2000-2002) “Decision and Risk Analysis” \$40,000 (Role: joint with C. Yano)
- Northwestern University, subcontract from National Science Foundation (1998-2000) “Development and Analysis of Robust and Efficient Algorithms for Large-Scale Production Systems” \$34,757 (Role: subcontract).
- National Science Foundation (1999) DMI-9912058 “Workshop: Collaboration and Standardization in Supply Chain Management; Berkeley, California, October 25-26, 1999” \$22,131 (Role: Co-PI, with D. Hochbaum and J. Swaminathan).

Service

- 2001/2002 IEOR Faculty Search Committee Chair
- 2003/2004 IEOR Faculty Search Committee Chair
- Graduate Admissions Committee, 2001 - present
- Head Graduate Advisor, Fall 2003 - present
- Undergraduate Advisor, Fall 1997 to Spring 2003
- Industrial Engineering Department Coordinator : University of California Industrial Liaison Program
- Member, Management of Technology Administration Committee, College of Engineering, UC Berkeley, 2003-present
- Member, Committee on Instructional Technology and Distance Learning, College of Engineering, UC Berkeley, 2000-present
- Member, College of Engineering Graduate Study Committee, UC Berkeley, 2003-present; Chair, 2006-present;
- Member, Committee on Summer Undergraduate Program in Engineering Research, College of Engineering, UC Berkeley, 2000-2003
- Co-organizer, Fundamentals of Bioproduction Conference, Berkeley, CA 2006.
- Departmental Member, National Research Council Ranking Preparation Committee
- Chair, 2007-2009 Departmental Graduate Curriculum Revision Committee
- Member, UC Berkeley Committee on Courses of Instruction, 2008-present.

Graduate Students

- Onur Kaya. Doctoral Dissertation Title: *Supply Chain Due Date Quotation*. Completed Fall 2006. Currently on the faculty of Koc University in Istanbul.
- Osman Engin Alper (Jointly advised with w/H.Ahn) Doctoral Dissertation Title: *Third Party Logistics Contracts*. Expected Completion Fall 2008.
- Zu-Hsu Lee. Doctoral Dissertation Title: *Algorithms for Due Date Quotation*. Completed Spring 2002. Currently on the faculty of Marist University.
- Kerem Bulbul (jointly advised w/C. Yano) Doctoral Dissertation Title: *Just in Time Scheduling in the Supply Chain*. Completed August, 2002. Currently on the faculty of Sabanci University in Istanbul.
- Mehmet Gumus (jointly advised w/H. Ahn) Doctoral Dissertation Title: *Joint Pricing/Production Models*. Completed Spring 2007. Currently on the faculty of McGill University in Montreal.
- **Committee Member:** Farook Hamzeh, Simge Kucukyavuz, Yuwei Li, David Busing, Hyun Jeong Choo, Muruvvet Celikbas, Sejung Park, Jung-Hyun Kim, Anne Goodchild, Thais Alves, Yangeng Ouyang, John Bowman, Maria Mayorga, Qi Zhu, Joon Ho Lee, Elham Yavari, Vishnu Narayanan, Jing Yang, Nikolaos Geroliminis.