

MYONG-HUN CHANG

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Education

1988, Ph.D., Economics, The Johns Hopkins University

1987, M.A., Economics, The Johns Hopkins University

1984, B.S., Operations Research & Industrial Engineering, Cornell University

Principal Academic Appointments

2004-Present, Chairman, Department of Economics, Cleveland State University

2004-Present, Professor, Department of Economics, Cleveland State University

1989-Present, Graduate Faculty, Cleveland State University

1993-2004, Associate Professor, Department of Economics, Cleveland State University

1988-93, Assistant Professor, Department of Economics, Cleveland State University

Shorter-term Academic Appointments

1-6/1999, Visiting Associate Professor, Owen Graduate School of Management, Vanderbilt University

1-6/1995, Visiting Associate Professor, Department of Economics, The Johns Hopkins University

Research Interests

Industrial Organization, Microeconomic Theory, Organization Theory, Competitive Strategy, Computational Economics, Social Networks

Teaching Interests and Experience

Main Teaching Interests: Industrial Organization, Microeconomic Theory, Competitive Strategy, Managerial Economics, Organization Theory, Applied Game Theory

Undergraduate Teaching Experience: Industrial Organization, Principles of Microeconomics, Intermediate Microeconomics, Economics of Regulation, Managerial Economics, Game Theory and Business Strategy, Game Theory and the Social Sciences (Honors)

MBA Teaching Experience: Microeconomics for MBAs, Managerial Economics, Game Theory and Business Strategy

Graduate Teaching Experience: Industrial Organization, Competition and Strategy

Professional Services and Affiliations

2007, Member, Davidson Fellows Review Committee, Davidson Institute

2007, Member, Grant Review Panel, *Human and Social Dynamics* Program, National Science Foundation

2006, Member, Davidson Fellows Review Committee, Davidson Institute

2006, Member, International Scientific Committee, Third Workshop of Society for Computational Economics on *Complex Behavior in Economics: Modeling, Computing, and Mastering Complexity*, Aix-en-Provence, France

2004, Member, Grant Review Panel, *Human and Social Dynamics* Program, National Science Foundation

2003, Member, International Scientific Committee, Second Workshop of Society for Computational Economics on *Complex Behavior in Economics: Modeling, Computing, and Mastering Complexity*, Aix-en-Provence, France

Research Grants and Awards

2008-2011, Faculty Research Development Grant for *A Computational Model of Industry Evolution*, Cleveland State University

2000-2002, National Science Foundation Research Grant (SES - 0078752) for *Computational Modeling of Multi-Level/Multi-Unit Organizations*, Co-Principal Investigator (joint with Joseph E. Harrington, Jr.)

1989-90, Research and Creative Activities Grant for *Exclusive Dealing Contracts and Market Foreclosure*, Cleveland State University

6-8/1989, Research Challenge Grant, Cleveland State University

Publications

1. "Innovators, Imitators, and the Evolving Architecture of Problem-Solving Networks," (co-authored with Joseph E. Harrington, Jr.) *Organization Science*, 18 (2007), 648-666
2. "Decentralization," in Stewart Clegg and James R. Bailey, editors, *International Encyclopedia of Organization Studies*, Volume 1 (2007), SAGE Publications, Thousand Oaks, CA, 359-362
3. "Agent-Based Models of Organizations," (co-authored with Joseph E. Harrington, Jr.) in: Tesfatsion, Leigh and Kenneth L. Judd, eds., *Handbook of Computational Economics II: Agent-Based Computational Economics*, Elsevier (2006), 1273-1337
4. "Discovery and Diffusion of Knowledge in an Endogenous Social Network," (co-authored with Joseph E. Harrington, Jr.) *American Journal of Sociology*, 110 (2005), 937-976
5. "Co-Evolution of Firms and Consumers and the Implications for Market Dominance," (co-authored with Joseph E. Harrington, Jr.) *Journal of Economic Dynamics and Control*, 29 (2005), 245-276
6. "Organization of Innovation in a Multi-Unit Firm: Coordinating Adaptive Search on Multiple Rugged Landscapes," (co-authored with Joseph E. Harrington, Jr.) in William Barnett, Christophe Deissenberg, and Gustav Feichtinger, editors, *Economic Complexity: Non-linear Dynamics, Multi-agents Economies, and Learning*, International Symposia on Economic Theory and Econometrics, Volume 14 (2004), Elsevier, Amsterdam, 189-214
7. "Multi-Market Competition, Consumer Search, and the Organizational Structure of Multi-Unit Firms," (co-authored with Joseph E. Harrington, Jr.) *Management Science*, 49 (2003), 541-552 (Special Issue on "Managing Knowledge in Organizations: Creating, Retaining, and Transferring Knowledge")
8. "Decentralized Business Strategies in a Multi-Unit Firm," (co-authored with Joseph E. Harrington, Jr.) *Annals of Operations Research*, 109 (2002), 77-98 (Special Issue on "Game Practice")
9. "Centralization vs. Decentralization in a Multi-Unit Organization: A Computational Model of a Retail Chain as a Multi-Agent Adaptive System," (co-authored with Joseph E. Harrington, Jr.) *Management Science*, 46 (2000), 1427-1440
10. "Product Switching Cost and Strategic Flexibility," *Journal of Economics and Management Strategy*, 7 (1998), 461-488
11. "Organizational Structure and Firm Innovation In a Retail Chain," (co-authored with Joseph E. Harrington, Jr.) *Computational and Mathematical Organization Theory*, 3 (1997), 267-288
12. "The Interactive Effect of Product Differentiation and Cost Variability on Profit," (co-authored with Joseph E. Harrington, Jr.) *Journal of Economics and Management Strategy*, 5 (1996), 175-193

13. "Flexible Manufacturing, Uncertain Consumer Tastes, and Strategic Entry Deterrence," *Journal of Industrial Economics*, XLI (1993), 77-90
14. "Intertemporal Product Choice and Its Effects on Collusive Firm Behavior," *International Economic Review*, 33 (1992), 773-793
15. "Exclusive Dealing Contracts in a Successive Duopoly with Side Payments," *Southern Economic Journal*, 59 (1992), 180-193
16. "The Effects of Product Differentiation on Collusive Pricing," *International Journal of Industrial Organization*, 9 (1991), 453-469
17. "The Effects of Irreversible Investment in Durable Capacity on the Incentive for Horizontal Merger," (co-authored with Joseph E. Harrington, Jr.) *Southern Economic Journal*, 55 (1988), 443-453

Working Papers

1. "Industry Dynamics with Knowledge-Based Competition: A Computational Study of Entry and Exit Patterns," April 2008.
2. "Emergent Social Learning Networks in Organizations with Heterogeneous Agents," April 2008.
3. "Modelling the Birth and Death of Cartels with an Application to Evaluating Antitrust Policy," (co-authored with Joseph E. Harrington, Jr.) June 2007.
4. "Partition and Delegate: A Computational Algorithm for Generating Nested Organizational Hierarchies with a Fixed Number of Tasks," June 2007
5. "Recursively Nested Organizational Hierarchies: Information Processing and Coordination," in preparation.
6. "Individual Learning and Social Learning: Endogenous Division of Cognitive Labor in a Population of Co-evolving Problem-Solvers," (co-authored with Joseph E. Harrington, Jr.) January 2007
7. "Co-Evolution of Firms and Consumers and the Implications for Market Dominance," (co-authored with Joseph E. Harrington, Jr.) *Center on Social and Economic Dynamics Working Paper Series No. 23*, The Brookings Institution, October 2001.
8. "Centralization vs. Decentralization in a Multi-Unit Organization: A Computational Model of a Retail Chain as a Multi-Agent Adaptive System," (co-authored with Joseph E. Harrington, Jr.) *Santa Fe Institute Working Paper 00-02-010* (2000)
9. "Chaebols and Big Deals: Cross-Market Cost-Interdependencies and the Excess Diversification Dilemma in Multi-Market Business Groups," September 1999; Revised January 2000
10. "Collusive Product Differentiation," April 1999

11. "Non-Equilibrium Dynamics of Social Norms: A Note on the Historical Significance of Small But Persistent Accidents in Emergent Social Transformations," October 1998
12. "Non-Maximal Differentiation in Markets with Switching Costs," September 1996; revised, May 1997
13. "Intertemporal Flexibility in Manufacturing: A Decision-Theoretic Model with Stable But Uncertain Consumer Preferences," May 1994; revised, September 1994

Selected University Services

University Committees:

University Graduate Council (2004-2006, 2007)
 Instructional Media Services Committee (2002-2006)

College Committees:

Dean's Advisory Council (2006-2007, 2007-2008)
 Chair, Search Committee for Associate Dean, College of Liberal Arts & Social Sciences (2006)
 Arts and Sciences Program Review Committee (2003-04)

Other Contributions:

Co-founder of *Reflections and Visions* (<http://reflections.ulib.csuohio.edu/index.html>)

Other Professional Activities

Referee/Reviewer for:

Journals:

American Economic Review, American Journal of Sociology, Annals of Operations Research, Canadian Journal of Economics, Computational Economics, Computational and Mathematical Organization Theory, Ecology and Society, Economic Journal, Economic Inquiry, Economic Theory, International Economic Review, International Journal of Industrial Organization, Journal of Economic Behavior and Organization, Journal of Economic Dynamics and Control, Journal of Economics and Business, Journal of Economics & Management Strategy, Journal of Economic Theory, Journal of Industrial Economics, Management Science, Managerial and Decision Economics, Marketing Science, Organization Science, Quarterly Journal of Business and Economics, RAND Journal of Economics, Review of Economic Studies, Review of Industrial Organization, Southern Economic Journal, Zeitschrift Für Nationalökonomie

Publishers:

Cambridge University Press, HarperCollins Publishers, John Wiley & Sons, Inc., Addison Wesley Longman, Prentice Hall, MIT Press

Grant Agencies:

National Science Foundation

Seminars, Talks, and Conference Presentations (since 1999)

- 7/2007: The 25th International Conference of the System Dynamics Society, Boston, Massachusetts, “Non-Equilibrium Industry Dynamics with Knowledge-Based Competition: An Agent-Based Computational Model”
- 2/2007: Eastern Economic Association Annual Conference 2007, New York City, New York, “Non-Equilibrium Industry Dynamics with Knowledge-Based Competition: An Agent-Based Computational Model”
- 9/2006: Third Conference on *Mathematical Methods in Counter-Terrorism*, The Institute of World Politics, Washington, D.C., “Discovery and Diffusion of Knowledge in an Endogenous Social Network”
- 5/2006: Third International Meeting of *Complexity 2006*, Aix-en-Provence, France, “Individual Learning and Social Learning: Endogenous Division of Cognitive Labor in a Population of Co-evolving Problem-Solvers” (Invited Session, Session Organizer, Session Chair)
- 11/2005: 2005 Annual Meeting of the *Southern Economic Association*, Washington, D.C., “Innovators, Imitators, and the Evolving Architecture of Social Networks”
- 7/2005: *Social Network Analysis: Advances & Empirical Applications*, Oxford University, England, “Innovators, Imitators, and the Evolving Architecture of Social Networks”
- 6/2005: *North American Association for Computational Social and Organizational Science* Conference, University of Notre Dame, “Innovators, Imitators, and the Evolving Architecture of Social Networks”
- 5/2004: *Handbook of Computational Economics* Conference, Center for the Study of Complex Systems, University of Michigan, “Agent-Based Models of Organizations”
- 10/2003: DePaul University, Department of Economics, “Discovery and Diffusion of Knowledge in an Endogenous Social Network”
- 5/2003: Second Workshop of the Special Interest Group on Economic Dynamics (Society for Computational Economics) on *Complex Behavior in Economics: Modeling, Computing, and Mastering Complexity*, Aix-en-Provence (Marseille), France, “Discovery and Diffusion of Knowledge in an Endogenous Social Network”
- 6/2002: Computational and Mathematical Organization Theory Conference, Carnegie Mellon University, “Innovation versus Imitation in Stochastic Social Networks with Decentralized Reinforcement Learning”
- 5/2002: Lake Arrowhead Conference on Computational Social Science and Social Complexity, UCLA, “Learning from the Competition: External Spillovers and the Organizational Structures of Competing Multi-Unit Firms”

- 1/2002: North American Winter Meetings of the Econometric Society, Atlanta, GA, “Multi-Market Competition, Consumer Search, and the Organizational Structure of Multi-Unit Firms”
- 9/2001: Conference on *Managing Knowledge in Organizations: Creating, Retaining, and Transferring Knowledge*, GSIA, Carnegie Mellon University, “Consumer Search, Competition, and the Organizational Structure of Multi-Unit Firms”
- 6/2001: 7th International Conference of the Society of Computational Economics, Yale University, “Consumer Search, Competition, and the Organizational Structure of Multi-Unit Firms”
- 8/2000: World Congress of the Econometric Society, University of Washington (Seattle), “Centralization vs. Decentralization in a Multi-Unit Organization: A Computational Model of a Retail Chain as a Multi-Agent Adaptive System”
- 7/2000: Computational Social and Organizational Science Conference, Carnegie Mellon University, “Competition and the Organizational Structure of Multi-Unit Firms”
- 5/2000: *Complex Behavior in Economics* workshop, Aix-en-Provence, France, “Centralization vs. Decentralization in a Multi-Unit Organization: A Computational Model of a Retail Chain as a Multi-Agent Adaptive System”
- 6/1999: 1999 Meetings of the Society for Computational Economics, Boston College, “Organizational Structure and Perpetual Innovation: A Computational Model of a Retail Chain”
- 5/1999: Computational and Mathematical Organization Theory Workshop, INFORMS (Institute for Operations Research and the Management Sciences) 1999 Meetings, Cincinnati, Ohio, “Organizational Structure and Perpetual Innovation: A Computational Model of a Retail Chain”
- 1/1999, Owen Graduate School of Management, Vanderbilt University, “Organizational Structure and Perpetual Innovation: A Computational Model of a Retail Chain”

Personal Information

U.S. Citizen

Married with two children

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