

**MARK J. MACHINA**

**PERSONAL:**

Born: October 27, 1954	Department of Economics
Citizenship: United States	University of California, San Diego
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**EDUCATION:**

Michigan State University:	B.A. with Highest Honors (Economics), June 1975
	B.A. with Highest Honors (Mathematics), June 1975
Massachusetts Institute of Technology:	Ph.D. (Economics), August 1979
Thesis Title:	“Essays in the Economics of Uncertainty”
Thesis Committee:	Franklin Fisher (Chair), Peter Diamond, Eric Maskin

**HONORS, FELLOWSHIPS AND GRANTS:**

Phi Beta Kappa, Michigan State University Chapter, elected May 1975

National Science Foundation Graduate Fellowship in Economics, September 1975 - June 1978

Visiting Fellow, Department of Economics, Australian National University, July - September 1983

National Science Foundation Grant SES-8308165, “Studies in Generalized Expected Utility Analysis,” August 1983 - January 1986

Alfred P. Sloan Foundation Research Fellowship, September 1984 - September 1986

Fellow, Center for Advanced Study in the Behavioral Sciences, Stanford, Sept. 1987 - June 1988

Fellow, Econometric Society, elected December 1989

Outstanding Teaching Award, Earl Warren College, UCSD, June 1992

National Science Foundation Grant SES-92-09012, “Preferences, Beliefs and Behavior Under Subjective Uncertainty,” July 1992 - June 1995

Erskine Fellow, Dept. of Economics, University of Canterbury, New Zealand, July - August 1994

Geneva Risk Lecture, 21st Seminar of the European Group of Risk and Insurance Economists, Toulouse, France, September 1994

Environmental Protection Agency Research Grant R824698, “Comparative Statics of Approaches to Eliciting Economic Values” (with Richard Carson and Ted Groves), Oct. 1995 - Sept. 1997

Outstanding Teaching Award, Earl Warren College, UCSD, June 1997

UCSD Chancellor’s Associates Faculty Award for Excellence in Teaching, February 1998

UCSD Academic Senate Distinguished Teaching Award, May 1998

Kaiser Visiting Professor of Economics, Stanford University, January - June 1999

National Science Foundation Research Grant SBR-9870894, “Locally Preference-Maximizing Choice Functions,” July 1998 - June 2001

Ph.D. Commencement Address, Institut Européen d'Administration (INSEAD), Fontainebleau, France, July 7, 1999

Werner Sichel Lecture on the Economics of Risk, Western Michigan University, November 7, 2001

Fellow, American Academy of Arts and Sciences, elected April 2002

Faculty Teaching Award for Distinguished Teaching in a Graduate Core Course, Department of Economics, UCSD, 2006-2007

ISI Highly Cited Researcher

Listed in: *Who's Who in Economics, 4th Ed.*, Mark Blaug (ed.), Edward Elgar Publishing, 2003

*Who's Who in Finance and Business, 36th Ed.*, Marquis Publishing, 2009-2010

*Who's Who in Science and Engineering, 10th Ed.*, Marquis Publishing, 2008-2009

*Who's Who in America 2010*, Marquis Publishing

*Who's Who in the World 2010*, Marquis Publishing

## **EMPLOYMENT:**

Teaching Assistant and Research Assistant, Department of Economics, Massachusetts Institute of Technology, September 1977 - June 1979

Assistant Professor of Economics, University of California - San Diego, July 1979 - June 1984

Visiting Scholar, Graduate School of Business, Columbia University, September 1980

Junior Research Officer, Department of Applied Economics, University of Cambridge, October 1980 - August 1981

Lector, Trinity College, Cambridge, January - June 1981

Visiting Assistant Professor of Economics, Princeton University, September 1981 - June 1982

Associate Professor of Economics, University of California - San Diego, July 1984 - June 1988

Instructor, Economics Training Center, People's University of China, Beijing: March - June 1987, September - December 1990, September - December 1991, September - December 1993

Professor of Economics, University of California - San Diego, July 1988 - June 2007

Visiting Lecturer, Department of Economics, University of Wyoming, August - September 1992

Visiting Professor, Department of Economics, Duke University, September - December 1996

Distinguished Professor of Economics, University of California - San Diego, since July 2007

## **PROFESSIONAL ACTIVITIES:**

Member: American Economic Association  
Econometric Society  
Society for Judgment and Decision Making

Program Director for Individual Decision Making, Center for the Economic Analysis of Risk (CEAR), Robinson College of Business, Georgia State University (since 2008)

Co-Editor: *Economic Theory* (since 2004)

Coordinating Editor: *Theory and Decision* (since 1986)

- Associate Editor: *The Geneva Risk and Insurance Review* (since 1996)  
*Journal of Risk and Uncertainty* (since 1990)
- Editorial Board: *Asia-Pacific Journal of Risk and Insurance* (since 2005)  
*Mathematical Social Sciences* (since 1997)
- Past Editorial Service: *Journal of Risk and Uncertainty* (founding Co-Editor, 1988-1990)  
*Econometrica* (Associate Editor, 1984-1991)  
*Journal of Economic Perspectives* (Associate Editor, 1987-1990)  
*Journal of Economic Surveys* (Associate Editor, 1987-1991)  
*Journal of Economic Theory* (Associate Editor, 1983-1991)  
*Journal of Mathematical Economics* (Co-Editor, 1999-2015)  
*Journal of Mathematical Psychology* (Consulting Editor, 2004-2014)  
*Quarterly Journal of Economics* (Associate Editor, 1985-1991)
- Referee: *American Economic Review*, *American Journal of Agricultural Economics*,  
*American Statistician*, *Bell Journal of Economics*, *Canadian Journal of Economics*,  
*Economic Journal*, *Economic Record*, *Economics and Philosophy*,  
*Empirical Economics*, *European Journal of Operations Research*, *Games and Economic Behavior*,  
*International Economic Review*, Israel Science Foundation,  
*Journal of the American Statistical Association*, *Journal of Behavioral Decision Making*,  
*Journal of Econometrics*, *Journal of Economic Behavior and Organization*,  
*Journal of Economic Education*, *Journal of Economic Literature*,  
*Journal of Environmental Economics and Management*, *Journal of Law, Economics and Organization*,  
*Journal of Political Economy*, *Journal of Public Economics*, *Journal of Risk and Insurance*,  
*Management Science*, *Mathematics of Operations Research*, National Oceanic and Atmospheric Administration,  
National Science Foundation, *Operations Research*, *Philosophy of Science*,  
*Proceedings of the National Academy of Sciences*, *Rand Journal of Economics*,  
*Review of Economic Studies*, *Science*, Social Science and Humanities Research Council of Canada,  
*SIAM Journal of Applied Mathematics*
- Volume Co-Editor: *Handbook of the Economics of Risk and Uncertainty, Vol. 1* (with W. Kip Vicusi),  
North Holland, 2014,
- Public Service: Chair, Working Group on Information and Decision Making, National Research Council Committee on Basic Research in the Behavioral & Social Sciences, 1985  
Member, National Research Council Graduate Fellowship Evaluation Panel in the Behavioral and Social Sciences, 1986, 1987, 1988  
Member, National Science Foundation Science and Technology Center Advisory Panel for the Social Sciences, April 1988  
Faculty Trustee, UC San Diego Foundation, 2001-2004  
Member, Board of Directors, Ida & Cecil Green Faculty Club, UCSD, 2003-05

## **PUBLICATIONS:**

“On Path Independent Randomized Choice” (with Robert Parks), *Econometrica* 49 (September 1981) 1345-1347.

- “‘Rational’ Decision Making versus ‘Rational’ Decision Modeling?: A Review of *Expected Utility Hypotheses and the Allais Paradox*, Maurice Allais and Ole Hagen (eds.),” *Journal of Mathematical Psychology* 24 (October 1981) 163-175. Reprinted in B. Munier (ed.), *Markets, Risk and Money: Essays in Honor of Maurice Allais*, Kluwer Academic Publishers, 1995.
- “‘Expected Utility’ Analysis Without the Independence Axiom,” *Econometrica* 50 (March 1982) 277-323. Reprinted in John Hey (ed.), *The Economics of Uncertainty, Vol. I: Risk*, Edward Elgar Publishing, Ltd., 1997; in O. Hamouda and J. Rowley (eds.), *Expected Utility, Fair Gambles and Rational Choice*, Edward Elgar, 1997; in Graciela Chilchilinsky (ed.), *Mathematical Economics*, Edward Elgar, 1998; and in Kelvin Lancaster (ed.), *Consumer Theory*, Edward Elgar, 1999.
- “A Stronger Characterization of Declining Risk Aversion,” *Econometrica* 50 (July 1982) 1069-1079.
- “Flexibility and the Demand for Risky Assets,” *Economics Letters* 10 (No. 1-2, 1982) 71-76.
- “Generalized Expected Utility Analysis and the Nature of Observed Violations of the Independence Axiom,” in B. Stigum and F. Wenstøp (eds.), *Foundations of Utility and Risk Theory with Applications*, D. Reidel, Dordrecht, Holland, 1983, 263-293. Reprinted in Peter Gärdenfors and Nils-Eric Sahlin (eds.), *Decision, Probability, and Utility: Selected Readings*, Cambridge University Press, 1988.
- “The Incentive Implications of Incomplete Insurance: The Multiplicative Case” (with Takatoshi Ito), *Economics Letters* 13 (No. 4, 1983) 319-323.
- “Axioms and Models in Decision Making Under Uncertainty: A Review of *The Foundations of Expected Utility* by Peter Fishburn,” *Journal of Mathematical Psychology* 27 (September 1983) 328-334.
- “The Economic Theory of Individual Behavior Toward Risk: Theory, Evidence and New Directions,” Center for Research on Organizational Efficiency Technical Report 433, Stanford University, October 1983, 152 pp.
- “Attitudes Toward Risk: Further Remarks” (with Hans Binswanger and Jaime Quizon), *Economic Journal* 94 (March 1984) 144-148.
- “Temporal Risk and the Nature of Induced Preferences,” *Journal of Economic Theory* 33 (August 1984) 199-231.
- “On the Profitability of Russian Serfdom” (with Evsey Domar), *Journal of Economic History* 44 (December 1984) 919-955. Reprinted in *Capitalism, Socialism, and Serfdom: Essays by Evsey D. Domar*, Cambridge University Press, 1989. [“The Profitability of Serfdom: A Reply” (with Evsey Domar), *Journal of Economic History* 45 (December 1985) 960-962.]
- “Stochastic Choice Functions Generated from Deterministic Preferences over Lotteries,” *Economic Journal* 95 (September 1985) 575-594. Reprinted in John Hey (ed.), *The Economics of Uncertainty*, Edward Elgar, 1997.
- “Information and Decision Making” (with Robin Hogarth, Kenneth MacCrimmon, John Roberts, Alvin Roth, Paul Slovic and Richard Thaler) in R. Duncan Luce, Neil J. Smelser and Dean R. Gerstein (eds.), *Leading Edges in Social and Behavioral Science*, Russell Sage Foundation Press, 1989. Originally: “Report of the Working Group on Information and Decision Making for the National Research Council’s Ten-Year Outlook on Research Opportunities in the Behavioral and Social Sciences,” Sept. 1985.

- “Decision Making in the Presence of Risk,” *Science* 236 (May 1, 1987) 537-543. Reprinted in Frank Hahn (ed.), *The Economics of Missing Markets, Information, and Games*, Oxford University Press, 1989.
- “Choice Under Uncertainty: Problems Solved and Unsolved,” *Journal of Economic Perspectives* 1 (Summer 1987) 121-154. Reprinted in: John Hey (ed.), *Current Issues in Microeconomics*, Macmillan, 1989; (in expanded form) in P. Brett Hammond and Rob Coppock (eds.), *Valuing Health Risks for Environmental Decision Making*, National Academy Press, 1990; in Karen S. Cook and Margaret Levi (eds.), *The Limits of Rationality*, University of Chicago Press, 1990; in Georges Dionne and Scott Harrington (eds.), *Foundations of Insurance Economics*, Kluwer Academic Publishers, 1992; in John Hey (ed.), *The Economics of Uncertainty, Vol. I: Risk*, Edward Elgar Publishing, 1997; in Manfredi La Manna (ed.), *Readings in Microeconomic Theory*, Dryden Press, 1997; in O. Hamouda and J. Rowley (eds.), *Paradoxes, Ambiguity and Rationality*, Edward Elgar, 1997; (in expanded form) in Partha Dasgupta and Karl-Göran Mäler (eds.), *The Environment, Development and Economic Analysis, Vol. 1*, Clarendon Press, 1997; in Robert Kuenne (ed.), *Readings in Applied Microeconomic Theory: Market Forces and Solutions*, Blackwell Publishers, 2000; and in Michael Allingham (ed.) *Rational Choice Theory: Critical Concepts In The Social Sciences, Vol. 2.*, Routledge, 2006. [“Choice Under Uncertainty: Response,” *Journal of Economic Perspectives* 2 (Spring 1988) 181-183.]
- “The Ross Characterization of Risk Aversion: Strengthening and Extension,” (with William Neilson), *Econometrica* 55 (September 1987) 1139-1149.
- “Moment Preferences and Polynomial Utility” (with Sigrid Müller), *Economics Letters* 23 (No. 4, 1987), 349-353.
- “Cardinal Properties of ‘Local Utility Functions,’” in *Risk, Decision and Rationality*, Bertrand Munier (ed.), D. Reidel, Dordrecht, Holland, 1988, 339-344.
- “Comparative Statics and Non-Expected Utility Preferences,” *Journal of Economic Theory* 47 (April 1989) 393-405.
- “Dynamic Consistency and Non-Expected Utility Models of Choice Under Uncertainty,” *Journal of Economic Literature* 27 (December 1989) 1622-1668. Reprinted in Michael Bacharach and Susan Hurley (eds.), *Foundations of Decision Theory: Issues and Advances*, Basil Blackwell, 1991; in John Hey (ed.), *The Economics of Uncertainty, Vol. II: Uncertainty and Dynamics*, Edward Elgar Publishing, Ltd., 1997; in O. Hamouda and J. Rowley (eds.), *Paradoxes, Ambiguity and Rationality*, Edward Elgar Publishing, Ltd., 1997; and in Michael Allingham (ed.) *Rational Choice Theory: Critical Concepts In The Social Sciences, Vol. 2.*, Routledge, 2006.
- “A More Robust Definition of Subjective Probability” (with David Schmeidler), *Econometrica* 60 (July 1992) 745-780. Reprinted in John Hey (ed.), *The Economics of Uncertainty, Vol. II: Uncertainty and Dynamics*, Edward Elgar Publishing, Ltd., 1997.
- “Two Errors in the ‘Allais Impossibility Theorem’,” *Theory and Decision* 38 (May 1995) 231-250. “The Two Errors: A Summary,” 301-307.
- “Non-Expected Utility and the Robustness of the Classical Insurance Paradigm,” *Geneva Papers on Risk and Insurance Theory* 20 (June 1995), 9-50. Reprinted in Christian Gollier and Mark Machina (eds.), *Non-Expected Utility and Risk Management*, Kluwer Academic Publishers, 1995, and in Georges Dionne (ed.), *Handbook of Insurance, 2<sup>nd</sup> Ed.* Kluwer Academic Publishers, 2013.

- “Bayes Without Bernoulli: Simple Conditions for Probabilistically Sophisticated Choice,” (with David Schmeidler), *Journal of Economic Theory* 67 (October 1995), 106-128. Reprinted in Johann Götschl (ed.), *Evolution and Progress in Democracies: Towards New Foundations of a Knowledge Society*, Kluwer Academic Publishers, 2001.
- “The Derivation of Generalized Expected Utility Expansions: Reply to Russell,” in *Economic and Environmental Risk and Uncertainty*, Robert Nau, Erik Grønn, Mark Machina and Olvar Bergland (eds.), Kluwer Academic Publishers, 1997.
- “Increasing Risk: Some Direct Constructions” (with John Pratt), *Journal of Risk and Uncertainty* 14 (March 1997), 103-127.
- “Bounded Rationality Modeling” (with Bertrand Munier, Reinhard Selten, D. Bouyssou, P. Bourgine, R. Day, N. Harvey, D. Hilton, Ph. Parker, J. Sterman, E. Weber, B. Wernerfelt & R. Wensley) *Marketing Letters* 10 (August 1999), 233-248.
- “A Challenge to the ‘Econoclasts’: A Commentary on “Rationality for Economists? [by Daniel McFadden],” *Journal of Risk and Uncertainty* 19 (December 1999), 107-108.
- “Barrett and Arntzenius’s Infinite Decision Puzzle,” *Theory and Decision* 49 (November 2000), 293-297.
- “Payoff Kinks in Preferences over Lotteries,” *Journal of Risk and Uncertainty* 23 (November 2001), 207-260.
- “States of the World and the State of Decision Theory,” in Donald J. Meyer (ed.), *The Economics of Risk*, W.E. Upjohn Institute for Employment Research, 2003.
- “Non-Expected Utility Theory,” in *Encyclopedia of Actuarial Science*, Jozef Teugels and Bjørn Sundt (Editors), John Wiley & Sons, 2004.
- “Almost-Objective Uncertainty,” *Economic Theory* 24 (July 2004), 1-54.
- “‘Expected Utility/Subjective Probability’ Analysis without the Sure-Thing Principle or Probabilistic Sophistication,” *Economic Theory* 26 (July 2005), 1-62.
- “Choice Under Uncertainty,” in *Encyclopedia of Cognitive Science*, Lynn Nadel (Editor-in-Chief), Nature Publishing Group, Macmillan Publishers Ltd., 2005.
- “Forecasting and Decision Theory” (with Clive Granger) in *Handbook of Economic Forecasting, Vol. 1*, ed. by Graham Elliott, Clive Granger and Allan Timmermann, 2006.
- “Structural Attribution of Observed Volatility Clustering” (with Clive Granger), *Journal of Econometrics* 135 (November-December 2006) 15–29.
- “Non-Expected Utility Theory” in *International Encyclopedia of the Social Sciences, 2nd Edition*, William Darity, Jr. (Editor), Macmillan Reference USA, 2008.
- “Expected Utility Hypothesis,” in *The New Palgrave Dictionary of Economics, 2nd Edition*, Steven N. Durlauf and Lawrence E. Blume (eds.), Palgrave Macmillan, 2008. First edition version reprinted in *The New Palgrave: Utility and Probability*, John Eatwell, Murray Milgate and Peter Newman (eds.), Macmillan, 1990; and in *The New Palgrave Dictionary of Money and Finance*, Peter Newman, Murray Milgate and John Eatwell (eds.), Macmillan, 1992.

- “Risk” (with Michael Rothschild), in *The New Palgrave Dictionary of Economics, 2nd Edition*, Steven N. Durlauf and Lawrence E. Blume (eds.), Palgrave Macmillan, 2008. First edition version reprinted in *The New Palgrave: Utility and Probability*, John Eatwell, Murray Milgate and Peter Newman (eds.), Macmillan, 1990; and in *The New Palgrave Dictionary of Money and Finance*, Peter Newman, Murray Milgate and John Eatwell (eds.), Macmillan, 1992.
- “Non-Expected Utility Theory,” in *The New Palgrave Dictionary of Economics, 2nd Edition*, Steven N. Durlauf and Lawrence E. Blume (eds.), Palgrave Macmillan, 2008.
- “Risk, Ambiguity, and the Rank-Dependence Axioms” *American Economic Review* 99 (March 2009), 385–92.
- “Event-Separability in the Ellsberg Urn” *Economic Theory* 48 (October 2011), 425–436.
- “Ambiguity and Ambiguity Aversion” (with Marciano Siniscalchi), Ch. 13 of *Handbook of the Economics of Risk and Uncertainty, Vol. 1*. Mark J. Machina and W. Kip Viscusi (eds.), North Holland, 2014.
- “Ambiguity Aversion with Three or More Outcomes,” *American Economic Review*, December 2014.