April 2007 CURRICULUM VITAE

Ehud Kalai, Ph.D.

Office

Department of Managerial Economics and Decision Sciences Kellogg School of Management, Northwestern University, Evanston, Illinois, 60208 Office: (847) 491-7017; Fax (847) 467-3646; Cell (847) 571-1097; kalai@kellogg.northwestern.edu

Born: December 7, 1942, Tel Aviv, Israel

Education

Cornell University, Ithaca, New York: Ph.D. in Mathematics (1972); MS in Statistics (1971) University of California, Berkeley: A.B. in Mathematics (1967)

Permanent Academic Positions

The James J. O'Connor Distinguished Professor of Decision and Game Sciences, Kellogg School of Management, Northwestern University, 9/2001 - present. (Past positions: The Charles E. Morrison Professor of Decision Sciences (9/82-9/01); Professor (9/78-9/82), Associate Professor (9/76-9/78), Visiting Assistant Professor (9/75-9/76)

Professor of Mathematics (courtesy), Department of Mathematics, CAS, Northwestern University, 03/90-present

Assistant Professor, Department of Statistics, Tel Aviv University, 10/72-9/75

Editorial Positions

Editor and founder, Games and Economic Behavior, Elsevier, 1988-

Member of the Editorial Board of the International Journal of Game Theory, Physica Verlag, 1984-

Member of the Editorial Board of Mathematical Social Sciences, North-Holland, 1980-93

Associate Editor, The Journal of Economic Theory, Academic Press, Inc., 1980-88

Other Positions

The Game Theory Society, Past President, 2006-present

President of the Game Theory Society, 2003-06

Founder and Executive Vice President of the Game Theory Society, 1998-03

Director of the Center of Game Theory and Economic Behavior, Kellogg School of Management, Northwestern University, 1995-

Founding organizer of the Nancy L. Schwartz Memorial Lecture Series, 1981-

Chairman of the Department of Managerial Economics and Decision Sciences, Kellogg School of Management, Northwestern University, 1983-1985

A member of the Board of Directors of *First Savings of America*, a Federal Savings and Loan Association, Orland Park, Illinois (1986-1989)

Honors, Memberships, Organization and Keynote Lectures

1981

1978

1975

1971

Beta Gamma Sigma

Public Choice Society

Econometrics Society

American Mathematical Society

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2006	The Arthur and Rochelle Belfer Distinguished Lecturer Series, the Weizmann Institute of Science, Rehovot
2005	Invited guest at the 2005 Economics Nobel-Prize Ceremony, Stockholm
2005	The First international Workshop on Internet and Network Economics, Hong Kong
2005	Chair of the First GATE Workshop, Northwestern University
2005	The Sixth ACM Conference on Electronic Commerce, Vancouver
2005	Martha and Jonathan Cohen Distinguished Visitor, University of Pennsylvania
2005	The PIER Lecture, University of Pennsylvania
2004	The Presidential Address of the Second World Congress of the Game Theory Society Marseilles
2002	The Tenth International Symposium on Dynamic Games and Applications, Saint Petersburg
2002	The First Brazilian Workshop of the Game Theory Society, San Paulo
2001	The 2001 Pazner Lecture, Tel Aviv University
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1994	Jacob Marschak Lecture, the University of California, Los Angeles
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1992	Joint U.SItaly Second Workshop on Knowledge, Belief, and Strategic Interaction, Castiglioncello
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1990	The Second International Conference of Economics and Artificial Intelligence, Paris
1989	The Third Symposium on Complexity of Approximately Solved Problems, New York
1988	· · · · · · · · · · · · · · · · · · ·
1987	
1987	
1986	Chairman of the International Workshop on Bounded Rationality, Northwestern University

Grants

2006-2009	National Science Foundation Grant No. SES-0527656 in Economics/Computer Science, "DRU Learning and Social Efficiency in Large Games" (with Adam Kalai and Andrew Postlewaite)
1999-2002	National Science Foundation Grant No. SES-9904931 in Economics, "Learning and Information
in	
	Large Games"
1996-1999	National Science Foundation Grant No. SBR-9515421 in Economics, "Learning and Forecasting: Theory and Applications" (with Ehud Lehrer)
1993-1996	National Science Foundation Grant No. SBR-9223156 in Economics, "A Subjective Approach to Dynamic Interaction" (with Ehud Lehrer)
1991-1993	National Science Foundation Grant No. SES-9022305 in Economics, "Rational Learning in Long
	Term Interactions" (with Ehud Lehrer)
1990-1992	National Science Foundation Grant No SES-9011790 in Economics, "The Role of Strategic Complexity in Economics"
1988-1990	National Science Foundation Grant No. SES-8720342 in Economics, "Strategic Complexity in Extensive Games, "with Dov Samet and William Stanford
1984-1987	National Science Foundation Grant No. SES-8409798 in Economics, "Incentives to Cooperate
and	
	Monotonic Solutions to Group Decisions" (with Dov Samet)
1982-1984	National Science Foundation Grant No. SES-8208880 in Economics, "Equilibria of Games with Communications Commitments"
1981-1982	Research Chair in Decision Theory, Kellogg School of Management
1979-1981	National Science Foundation Grant No. SOC-7907542 in Economics, "Alternative Models of Incentives in Economics, "with John Roberts and Mark A. Satterthwaite
1980-1981	IBM Research Chair in Managerial Economics, Kellogg School of Management

Consulting

McDonalds Corporation Finance Officers, "On Behavioral Finance and Decision Making", Arlington Heights, 2004 Janssen Pharmaceutica, "Robust Strategies via Decision and Game Analysis," Boca Raton, 2002

Baxter Healthcare Corporation, "Strategic Learning in a Market with New Products," Deerfield, 2001

Baxter Healthcare Corporation, "Strategic Analysis of Competition in China," Deerfield, 1999-2000

Associated Research "Expert Opinion on Proper Assessment of California Taxes," Lake Forest, 1999

Sonnenschein Nath & Rosenthal, "Expert opinion in Alabama Class Action Suit against Allstate," Chicago, 1999

CCC information services, Chicago: "Expert opinion on CCC's vehicle valuation system" (1999); "A Game of Efficient Early Settlements," 1996-97; "The design of National Database and Valuation-Systems for: used automobiles (1989), unsalvageable automobiles (1990), and automobile parts (1992-93)"

Phelps Dunbar, L.L/P. Counselors at Law, "Estimating Damages in a Class Action Suit Involving Flammable Chemicals," New Orleans, 1998

Kaiser Permanente, "Rate Setting in a Competitive Environment," Pasadena, 1995

Arthur Anderson & Co, "Strategic Analysis of Profit Sharing System," Chicago, 1990

First Chicago, "Mortgage Backed Securities Information Service: Strategic Analysis," Chicago, 1987

Beckman, Kelly and Smith, Attorneys-at-Law, "Expert testimony in *Reginald Kinkade Variety Amusement et al. v. Lake County*," Hammond, 1985-86

United States Testing, "Expert opinion in Seven-Up v. Cola-Cola," Wheeling, 1984

The Steel Tank Institute, "Analysis of Steel Tank Institute 20-year Warranty of STI-P3," Northbrook, 1982

Frieman, Atkins and Colman Law Firm, "Testimony in Taysin Yassin vs. The City of Chicago," Chicago, 1982

Israeli Army, Division of Communications, mathematical and statistical consulting, 1974-1975

Fireman's Fund of America, actuarial trainee, San Francisco, 1967

PUBLICATIONS

Journal Publications

Kalai, E. and M. Smorodinsky," Other Solutions to Nash's Bargaining Problems," *Econometrica*, 43, No. 3. 1975, 513-518

Kalai, E. and M. Smorodinsky," On a Game-Theoretic Notion of Complexity for Compact Convex Sets," *Proceedings of the American Mathematical Society*, 49, No. 2, 1975, 416-420

Kalai, E., "Excess Functions for Cooperative Games Without Sidepayments," SIAM Journal of Applied Mathematics, 29, 1975, 60-71

Kalai, E., "On Game-Type Subsets," International Journal of Game Theory, 4, 1975, 141-150

Kalai, E., E. Pazner and D. Schmeidler, "Collective Choice Correspondences as Admissible Outcomes of Social Bargaining Processes," *Econometrica*, 44, 1976, 233-240

Kalai, E. and D. Schmeidler, "Aggregation Procedure for Cardinal Preferences: A Formulation and Proof of Samuelson's Impossibility Conjecture," *Econometrica*, 45, 1977, 1431-1437

Kalai, E. and D. Schmeidler, "An Admissible Set Occurring in Various Bargaining Situations," *Journal of Economic Theory*, 14, No. 2, 1977, 402-411

Kalai, E., "Proportional Solutions to Bargaining Situations: Interpersonal Utility Comparisons," *Econometrica*, 45, No. 7, 1977, 1623-1630

Kalai, E., "Non-Symmetric Nash Solutions for Replications of 2-Person Bargaining," *International Journal of Game Theory*, 6, Issue 3, 1977, 129-133

Kalai, E. and E. Muller, "Characterization of Domains Admitting Non-Dictatorial Social Welfare Functions and Non-Manipulable Voting Procedures," *Journal of Economic Theory*, 16, No. 2, 1977, 457-467

Anbar, D. and E. Kalai, "A One-Shot Bargaining Problem," *International Journal of Game Theory*, 7, Issue 1, 1978, 13-18

Kalai, E. and Robert W. Rosenthal, "Arbitration of Two-Party Disputes under Ignorance," *International Journal of Game Theory*, 7, Issue 2, 1978, 65-72

Kalai, E., A. Postlewaite and J. Roberts, "Barriers to Trade and Disadvantageous Middlemen: Nonmonotonicity of the Core," *Journal of Economic Theory*, 19, No. 1, 1979, 200-209

Kalai, E., A. Postlewaite and J. Roberts, "A Group Incentive Compatible Mechanism Yielding Core Allocations," *Journal of Economic Theory*, 20, No. 1, 1979, 13-22

Kalai, E., E. Muller and Mark A. Satterthwaite, "Social Welfare Functions when Preferences are Convex and Continuous: Impossibility Results," *Public Choice*, No. 34, 1979, 87-97

Kalai, E. and Z. Ritz, "Characterization of the Private Alternatives Domains Admitting Arrow Social Welfare Functions," *Journal of Economic Theory*, 22, No. 1, 1980, 23-36

Kalai, E. and N. Megiddo, "Path Independent Choices," Econometrica, 48, No. 3, 1980, 781-784

Kalai, E., "Preplay Negotiations and the Prisoners' Dilemma," Mathematical Social Sciences, 1, 1981, 375-379

Kalai, E. and E. Zemel, "Totally Balanced Games and Games of Flow," *Mathematics of Operations Research*, 7, No. 3, 1982

Kalai, E. and E. Zemel, "Generalized Network Problems Yielding Totally Balanced Games," *Operations Research*, 30, No. 4, 1982

Kalai, E. and D. Samet, "Persistent Equilibria in Strategic Games," *International Journal of Game Theory*, 13, No. 3, 1984, 129-144

Kalai, E. and D. Samet, "Unanimity Games and Pareto Optimality," *International Journal of Game Theory*, 14, Issue 1, 1985, 41-50

Kalai, E. and D. Samet, "Monotonic Solutions to General Cooperative Games," *Econometrica*, 53, No. 2, 1985, 307-327

Kalai, E. and W. Stanford, "Conjectural Variations Strategies in Accelerated Cournot Games," *International Journal of Industrial Organization*, 3, 1985, 133-152

Kalai, E. and W. Stanford, "Finite Rationality and Interpersonal Complexity in Repeated Games," *Econometrica*, 56, No. 2, 1988, 387-410

Kalai, E., "Strategic Behavior and Competition: An overview," Journal of Economic Theory, 39, No. 1, 1986, 1-13

Kalai, E. and D. Samet, "On Weighted Shapley Values," Int. J. of Game Theory, 16, 1987, 205-222

Kalai, E., D. Samet and W. Stanford, "A Note on Reactive Equilibria in the Discounted Prisoners' Dilemma," *International Journal of Game Theory*, Issue 3, 1988, 177-186

Kalai, E., "Games and Economic Behavior," Editorial, Games and Economic Behavior, Vol. 1, Issue 1, 1989, 1-5

Gilboa, I., E. Kalai and E. Zemel, "On the Order of Eliminating Dominated Strategies," *Operations Research Letters*, 9, 1990, 85-89

Fershtman, C., K. Judd and E. Kalai, "Observable Contracts: Strategic Delegation and Cooperation," *International Economic Review*, 32 (3), 1991, 551-559

Kalai, E. and A. Neme, "The Strength of a Little Perfection," *International Journal of Game Theory*, 20 (4), 1992, 335-355

Kalai, E., M. I. Kamien and M. Rubinovitch, "Optimal Service Speeds in a Competitive Environment," *Management Science*, 38, No. 8, 1992, 1154-1163

Fershtman, C. and E. Kalai, "Complexity Considerations in Market Behavior," *The RAND Journal of Economics*, 24, No. 2, 1993, 224-235

Baron, D. and E. Kalai, "The Simplest Equilibrium of a Majority-Rule Division Game," *Journal of Economic Theory*, 61, No. 2, 1993, 290-301

Gilboa, I., E. Kalai and E. Zemel, "The Complexity of Eliminating Dominated Strategies," *Mathematics of Operations Research*, 18, No. 3, 1993, 553-565

Kalai, E. and E. Lehrer, "Rational Learning Leads to Nash Equilibrium," Econometrica, 61, No. 5, 1993, 1019-1045

Kalai, E. and E. Lehrer, "Subjective Equilibrium in Repeated Games," Econometrica, 61, No. 5, 1993, 1231-1240

Kalai, E. and E. Lehrer, "Weak and Strong Merging of Opinions," *Journal of Mathematical Economics*, 23, 1994, 73-86

Kalai, E. and E. Lehrer, "Subjective Games and Equilibria," *Games and Economic Behavior*, 8, No. 1, 1995, 123-163

Kalai, E., "Games, Computers, and O.R.," *Proceedings of the Seventh Annual ACM-SIAM Symposium on Discrete Algorithms*, 1996, 468-473

Jackson, M. and E. Kalai, "Social Learning in Recurring Games," *Games and Economic Behavior*, 21, No. 1/2, 1997, 102-134

Fershtman, C. and E. Kalai, "Unobserved Delegation," International Economic Review, 38, No. 4, 1997, 763-774

Kalai, E., E. Lehrer and R. Smorodinsky, "Calibrated Forecasting and Merging," *Games and Economic Behavior*, 29, No. 1/2, 1999, 151-159

Jackson, M., E. Kalai and R. Smorodinsky, "Bayesian Representations of Stochastic Processes Under Learning: deFinetti Revisited," *Econometrica*, 67, No. 4, 1999, 875-894

Kalai, E. and J. O. Ledyard, "Repeated Implementation," Journal of Economic Theory, 83, No. 2, 1998, 308-317

Jackson, M. O. and E. Kalai, "Reputation versus Social Learning," *Journal of Economic Theory*, 88, No. 1, 1999, 40-59

Kalai, A. and E. Kalai, "Strategic Polarization," *Journal of Mathematical Psychology*, 45, No. 4, August 2001, 656-663

Kalai, E. and E. Solan, "Randomization and Simplification," *Journal of Economic Theory*, 111, No. 2, August 2003, pp 251-264

Kalai, E., "Large Robust Games," Econometrica, 72, No. 6, November 2004, pp 1631-1666

Kalai, E., "Partially-Specified Large Games," Lecture Notes in Computer Science, Vol. 3828, 2005, 3 – 13

E. Ben-Sasson, A. Kalai and E. Kalai, "An Approach to Bounded Rationality" forthcoming in *Advances in Neural Information Processing Systems* 19, 2007

Book Contributions

Kalai, E., A. Postlewaite and J. Roberts, "Arbitration of Exchange Situations with Public Goods," in *Applied Game Theory*, Brams, Schotter and Schwodiauer (eds.), Physica Verlag, 1979

Kalai, E., "Solutions to the Bargaining Problem," in *Social Goals and Social Organization, Essays in Memory of Elisha A. Pazner*, Hurwicz, Schmeidler and Sonnenschein (eds.), Cambridge University Press, 1985, 77-105

Kalai, E. and D. Samet, "Weighted Shapley Values," in *The Shapley Value, Essays in Honor of Lloyd S. Shapley*, A. Roth (ed.), Cambridge University Press, 1988, 83-100

Kalai, E., "Bounded Rationality and Strategic Complexity in Repeated Games," in *Game Theory and Applications*, Ichiishi, Neyman and Tauman (eds.), Academic Press, 1990, 131-157

Kalai, E. and D. Samet, "Types Decomposition and Perfect Implementations," in *Rational Interaction, Essays in Honor of John C. Harsanyi*, Reinhard Selten (ed.), Springer-Verlag, 1992, 97-119

Kalai, E., "A Rational Game Theory Framework for the Analysis of Legal and Criminal Decision Making," in *Inside the Juror: The Psychology of Juror Decision Making*, R. Hastie (ed.), Cambridge University Press, 1993, 235-241

Kalai, E. and Mark A. Satterthwaite, "The Kinked Demand Curve, Facilitating Practices, and Oligopolistic Coordination," in *Imperfection and Behavior in Economic Organizations*, R. P. Gilles and P. H. M. Ruys (eds.), Kluwer Academic Publishers, 1994, pp. 15-38

Jackson, M. and E. Kalai, "Recurring Bullies, Trembling and Learning," in *Understanding Strategic Interaction: Essays in Honor of Reinhard Selten*, W. Albers, W. Guth, P. Hammerstein, B. Moldovanu, and E. Van Damme (eds), Springer, 1997, pp 171-184

Jacobs, D.P., E. Kalai and M. I. Kamien(eds), *Frontiers of Research in Economic Theory*: The Nancy L. Schwartz Memorial Lectures, 1983-1997, Cambridge Univ. Press 1998

Jackson, M. and E. Kalai, "Social Learning in Recurring Games," Chapter 6 in *Social Organization and Mechanism Design*, Claude d'Aspremont (ed), De Boeck & Larcier s.a., 1999, pp 107-136

Kalai, E. and E. Lehrer, "Rational Learning in Repeated Games" in *Recent Development in Game Theory*, E. Maskin (ed), 1999, Edward Elgar Publishing

Kalai, E., "A Personal View of Game Theory" in *Game Theory, Five Questions*, V. F. Hendricks and P. G. Hansen (eds), 2007 Automatic Press / VIP

Kalai, E., "Structural Robustness of Large Games," forthcoming in the new *New Palgrave Encyclopedia of Economics*, 2007

Participation in Scientific Meetings and Invited Lectures (recent five years)

presented "Structural Robustness of Large Games" Computational Worldview and the Sciences, an NSF workshop at Caltech, presented "Modelling Large Games" California Institute of Technology, presented "Conditional Commitments" The Halvey Maiornia in Large Large Robustness of Large Games"	03/07	Stanford University, joint seminar of the Economics Dept and the School of business,
"Modelling Large Games" O3/07 California Institute of Technology, presented "Conditional Commitments"		presented "Structural Robustness of Large Games"
03/07 California Institute of Technology, presented "Conditional Commitments"	03/07	Computational Worldview and the Sciences, an NSF workshop at Caltech, presented
The state of the s		"Modelling Large Games"
12/06 The Helman Heimanite in Lamesland amounted "Standard Industrial Debuggar of Lance Comes"	03/07	California Institute of Technology, presented "Conditional Commitments"
12/00 The Hebrew University in Jerusalem, presented "Structural Robustness of Large Games"	12/06	The Hebrew University in Jerusalem, presented "Structural Robustness of Large Games"
12/06 Weizmann Institute of Science, The Arthur and Rochelle Belfer Distinguished Lecturer	12/06	Weizmann Institute of Science, The Arthur and Rochelle Belfer Distinguished Lecturer
Series, presented "Structural Robustness of Large Games"		Series, presented "Structural Robustness of Large Games"
09/06 Georgia Institute of Technology, presented "An Approach to Bounded Rationality" in the	09/06	Georgia Institute of Technology, presented "An Approach to Bounded Rationality" in the
Computer Science Department and "Robust Large Games" in the Mathematics Department		Computer Science Department and "Robust Large Games" in the Mathematics Department
07/06 The International Workshop on Game Theory at Stony Brook, presented "An Approach to	07/06	The International Workshop on Game Theory at Stony Brook, presented "An Approach to
Bounded Rationality"		Bounded Rationality"
07/06 Bertinoro Workshop on Algorithmic Game Theory, presented "An Approach to Bounded Rationality"	07/06	Bertinoro Workshop on Algorithmic Game Theory, presented "An Approach to Bounded Rationality"
04/06 Nobel Laureate Robert Aumann Symposium, Stony Brook, presented "A Large Market Game"	04/06	Nobel Laureate Robert Aumann Symposium, Stony Brook, presented "A Large Market Game"
O4/06 Cornell University, presented "Good and Bad News about Nash Equilibria with Many Participants	04/06	Cornell University, presented "Good and Bad News about Nash Equilibria with Many Participants
04/06 University of Chicago, presented "Good and Bad News about Nash Equilibria with Many	04/06	University of Chicago, presented "Good and Bad News about Nash Equilibria with Many
Participants	Participants	

03/06	Vanderbilt University, presented "Embedding a Game in a Bigger World"
03/06	Texas A&M University, presented "Embedding a Game in a Bigger World"
03/06	Rice University, presented "Embedding a Game in a Bigger World"
03/06	University of Texas at Austin, presented "Embedding a Game in a Bigger World"
12/05	Tel Aviv University, presented "Partially Specified Games"
12/05	A Key Note Address to The international Workshop on Network and Internet Economics, Hong
Kong,	"Partially Specified Large Games"
12/05	Invited guest at the 2005 Nobel Prize in Economics Ceremony, Stockholm
10/05	University of Pittsburgh, presented "Structurally-Robust Large Games"
06/05	European Summer School on Game Theory, Lisbon, Lectures on strategic learning and on large games
06/05	The Technion, Haifa, presented "Structural Robustness in Large Games"
06/05	The Sixth ACM Conference on Electronic Commerce, Vancouver, invited lecture, "Structural Robustness in Large Games"
04/05	Barcelona JOCS Seminar, "Structural Robustness in Large Games"
04/05	Santiago de Compostela University, presented "Structural Robustness in Large Games"
04/05	The PIER Lecture at the University of Pennsylvania, presented "The Good and Bad News about
Large	The FIER Lecture at the University of Femisyrvaina, presented. The Good and Bad News about
Large	Equilibria"
12/04	The Institute for Advanced Studies, The Hebrew University in Jerusalem, presented "Program
	Equilibria and Metagames"
12/04	The Hebrew University in Jerusalem, Dept of Economics, presented "Extensive Robustness
Revisited"	
10/04	Yale University, Cowles Uncertainty Workshop in Honor of David Schmeidler, presented "Extensive Robustness Revisited"
07/04	The International Workshop on Game Theory, Stony Brook, presented "Extensive Robustness Revisited"
07/04	The Presidential Address of the Second World Congress of the Game Theory Society, Marseilles, "What would von Neumann and Morgenstern Say?"
03/04	University of Carlos III Madrid, Department of Economics, presented "Extensive Robustness in Large Games"
03/04	University of Seville, Department of Economics, presented "Extensive Robustness in Large Games"
03/04	University of Alicante, Department of Economics, presented "Extensive Robustness in Large Games"
03/04	University of the Basque Country, Department of Economics, presented "Extensive Robustness in Large Games"
12/03	Tel-Aviv University, School of Mathematics, presented "Large Robust Games"
07/03	The International Conference of Game Theory, Stony Brook, presented "Large Robust Games"
06/03	University of Haifa, Department of Economics, presented "Large Robust Games"
05/03	University of Tilburgh, Department of Economics, presented "Large Robust Games" Landon School of Economics, Department of Economics, presented "Large Robust Comes"
05/03 05/03	London School of Economics, Department of Economics, presented "Large Robust Games" University of Economics, Department of Economics, presented "Large Robust Comes"
	University of Essex, Department of Economics, presented "Large Robust Games"
05/03	University of Warwick, Department of Economics, presented "Large Robust Games"
05/03	University of Bonn, Department of Economics, presented "Large Robust Games"
04/03	MIT Computer Science, presented "Robust Equilibria in Games with Many Agents"
04/03	Harvard / MIT Economic Theory Workshop, presented "Extensively Robust Equilibria in Large Games"
04/03	New York University, presented "Extensively Robust Equilibria in Large Games"
03/03	Yale University, presented "Extensively Robust Equilibria in Large Games"
02/03	Conference on Game Theory Laguna Beach, present "Large Robust Games"