

Curriculum Vitae

MAMORU KANEKO

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1. Personal

Date and Place of birth: February 17, 1950 and Tokyo

Citizenship: Japan

Office Address: Faculty of Political Science and Economics, Waseda University
Shinjuku, Tokyo 169-8050, Japan

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2. Education

Doctor of Science(Information Sciences), Tokyo Institute of Technology, Tokyo, 1979

Thesis Title: The ratio equilibria and the cores of voting games in a public goods economy

M.A.(Engineering), Tokyo Institute of Technology, Tokyo, 1974

B.A. (Engineering), Tokyo Institute of Technology, Tokyo, 1972

3. Fields of Interest

Inductive Game Theory, Epistemic Logic, Social Justice, and Housing Market Simulation

4. Employment

2013-present: Professor, Faculty of Political Science and Economics, Waseda University, Japan.

1992-2013: Professor, Institute of Policy and Planning Sciences, University of Tsukuba, Japan.

1988–1995: Professor, Department of Economics, Virginia Polytechnic Institute and State University, USA.

1986–1989: Associate Professor, Department of Economics, Hitotsubashi University.

1987–1988: Visiting Associate Professor, Department of Economics, Virginia Polytechnic Institute and State University, USA.

1982–1986: Associate Professor, Institute of Socio-Economic Planning, University of Tsukuba, Japan.

1980–1982: Visiting Fellow, Cowles Foundation for Research in Economics, Yale University, USA.

1977–1982: Lecturer, Institute of Socio-Economic Planning, University of Tsukuba, Japan.

5. Professional Activities

5.1. Membership

Japanese Association of Economics

Game Theory Society

Society for Social Choice and Welfare

Econometric Society, (*Fellow* from 2009)

Society for the Advancement of Economic Theory, (*Economic Theory Fellow* from 2011)

5.2. Awards or others

My small biography is included in *One Thousand Greats* p.736, International Biographical Centre, (2003), Cambridge.

5.3. Other Professional Service

1985–1991, Associate Editor of *Economic Studies Quarterly*

1986– present, Associate Editor of *Mathematical Social Sciences*

1983– 2013, Associate Editor of *Social Choice and Welfare*

1985–1988, Associate Editor of *Journal of Mathematical Economics*

1993–2001, Associate Editor of *International Journal of Game Theory*

1994–1997, Associate Editor of *Japanese Economic Review*

1997– 2005, Associate Editor of *Journal of Public Economic Theory*

1980–1992, Reviewer of *Zentralblatt für Mathematik*

1977–1986, Reviewer of *Mathematical Reviews*

1999–2001, Associate Editor of *Lecture Notes in Economics and Mathematical Systems*

2002–present, Associate Editor of *Economic Theory*
2004–2011, Associate Editor of *Knowledge, Rationality & Action*.
2007–2013, Associate Editor of *The Open Urban Studies Journal*.
2009–2012, Associate Editor of *Games*
2012–present, Associate Editor of *Journal of Modern Economy and Management*
2014–present, Contributing Editor of *Expert Journal of Economics*

5.4. Invited Lectures

1. Individual Interpretations of Society based on Experiences, *the 2nd Decentralization Conference in Japan*, 1995.
2. Some Implications of von Neumann’s “Abstract I” (tutorial), *the 5th Decentralization Conference in Japan*, 1998.
3. Epistemic Logic and Game Theory: the Individual and Society, *Japan Association for Evolutionary Economics*, 1999.
4. The Reversal of Particularity and Generality in Economics (play), *the 7th Decentralization Conference in Japan*, 2000.
5. Epistemic logic and Game Theory (tutorial). *Logic, Game Theory and Social Choice II*, 2001.
6. Microeconomics and Education (panel speaker), *Annual Meeting of Japanese Economic Association*. 2002.
7. Development of Epistemic Logic and Game Theory, *Summer School of Mathematical Logic*, 2003.
8. Epistemic Logic and Game theory, *the Fall Meeting of Mathematical Society of Japan*, 2004.
9. Inductive Game Theory, *the Spring Meeting of Japanese Economic Association*, 2005.
10. Recent Developments in Epistemic Logic, *the Annual Meeting of Philosophy of Science Society, Japan*, 2006.
11. Deductive and Inductive Inferences in Game Theoretical Situations, *Logic, Game Theory and Social Choice 5, Spain*, 2007.
12. Exploring New Socio-Economic Thought for a Small and Narrow Earth, *27th Australian Economic Theory Workshop*, Auckland, New Zealand, 2009/02/21.

5.5. Conferences and Workshops Organized

Conference on Game Theory, (with P. Dubey), March 1982, at Yale University, sponsored by Cowles Foundation, (20 participants).

Conference on Game Theory, March 1983, at University of Tsukuba, sponsored by Institute of Socio-Economic Planning, University of Tsukuba, (30 participants).

Conference on Social Choice and Welfare, March 1984 at University of Tsukuba, sponsored by Institute of Socio-Economic Planning, University of Tsukuba, (30 participants).

Conference on Game Theory, July 1984, at University of Tsukuba, sponsored by Institute of Socio-Economic Planning, University of Tsukuba, (15 participants).

The First Conference on Game Theory and Mathematical Economics, July 1987 at the University of Tokyo, sponsored by Ministry of Education of Japan, (40 participants). The conference volume: *Economics Studies Quarterly* 39 (1988), No. 4, edited by myself with M. Fujiwara-Okuno.

The Second Conference on Game Theory and Mathematical Economics, March 1987 at Shimoda Tokyu Hotel, sponsored by Ministry of Education of Japan, (35 participants).

Workshop on Game Theory and Mathematical Economics, April 1986-present, sponsored by Japan Ministry of Education of Economics (organized with M. Fujiwara-Okuno). The last two conferences are part of this workshop.

Philosophies of Economics, December 22-24, 1993 at Gotenba (organized with K. Iwai, H. Matsushima and M. Fujiwara-Okuno), (32 participants).

Logic and the Foundation of the Theory of Games and Decisions (Loft 2), December 19–22, 1996 at ICER, Torino, (organized with G. Bonnano and P. Mongin) (40 participants).

Logic and the Foundation of the Theory of Games and Decisions (Loft 3), December 17–20, 1998 at ICER, Torino, (organized with G. Bonnano and W. van der Hoek) (40 participants).

Epistemic Logic and Game Theory, October 19–22, 1998 at IPPS, Tsukuba, (30 participants).

Epistemic Logic and Game Theory, August 30–September 1, 1999 at RIMS, Kyoto University, (30 participants).

Epistemic Logic and Game Theory II, August 23–25, 2000 at RIMS, Kyoto University, (30 participants).

Epistemic Logic and Game Theory III, November 23–25, 2001 at Tsukuba University, (30 participants).

Epistemic Logic and Game Theory IV, November 28–30, 2002 at Tsukuba University, (30 participants).

Epistemic Logic and Game Theory V, December 2–4, 2003 at Tsukuba University, (30 participants).

The 1st Pan Pacific Game Theory Conference, November 24–26, 2004 at Tsukuba University, (30 participants).

The 2nd Asian Decentralization Conference, August 18–20, 2006 at Tsukuba University, (30 participants).

Logic, Game Theory, and Social Choice 6, August 26-29, 2009, Tsukuba University, (110 participants).

6. Publications

6.1. Refereed Articles

1. Necessary and sufficient conditions for transitivity in voting theory, *Journal of Economic Theory* 11 (1975), 385–393.
2. Necessary and sufficient conditions for the existence of a nonempty core of a majority game, *International Journal of Game Theory* 4 (1975), 215–219.
3. On the core and competitive of a market with indivisible goods, *Naval Research Logistic Quarterly* 23 (1976), 321–337.
4. Note on transferable utility, *International Journal of Game Theory* 6 (1976), 183–185.
5. The ratio equilibrium and a voting game in a public goods economy, *Journal of Economic Theory* 16 (1977), 123–136.
6. The ratio equilibrium and the core of the voting game $G(N,W)$ in a public goods economy, *Econometrica* 45 (1977), 1589–1594.
7. Price oligopoly as a cooperative game, *International Journal of Game Theory* 7 (1978), 137–150.
8. The Nash social welfare function, (with K. Nakamura), *Econometrica* 47 (1979), 423–435.
9. Cardinalization of the Nash social welfare function, (with K. Nakamura), *Economic Studies Quarterly* 30 (1979), 236–242.
10. An extension of the Nash bargaining problem and the Nash social welfare function, *Theory and Decision* 12 (1980), 135–148.
11. A game theoretical interpretation of the Stackelberg disequilibrium, (with Y. Ito), *Keio Economic Studies* 17 (1980), 29-40.
12. The Nash social welfare function for a measure space of individuals, *Journal of Mathematical Economics* 8 (1981), 173–200.
13. The bilateral monopoly and the Nash cooperative solution, *Journal of Economic Theory* 24 (1981), 311–327.
14. On the existence of an optimal income tax schedule, *Review of Economic Studies* 48 (1981), 633–642.

15. Ratio equilibrium in an economy with externalities, (with Y. Ito), *Zeitschrift für Nationalökonomie* 41 (1981), 279–294.
16. Linearization of cost functions in public goods economies, (with Y. Ito), *Economic Studies Quarterly* 32 (1981), 237–246.
17. The optimal progressive income tax- the existence and the limit tax rates, *Mathematical Social Sciences* 3 (1982), 193–221.
18. The central assignment game and the assignment markets, *Journal of Mathematical Economics* 10 (1982), 205–232.
19. Some remarks on the folk theorem in game theory, *Mathematical Social Sciences* 3 (1982), 281–290.
20. Cores of partitioning games, (with M. H. Wooders), *Mathematical Social Sciences* 3 (1982), 313–327.
21. Housing market with indivisibilities, *Journal of Urban Economics* 13 (1983), 22–50.
22. Reformulation of the Nash social welfare function for a Continuum of Individuals, *Social Choice and Welfare* 1 (1984), 33–43.
23. On interpersonal utility comparisons, *Social Choice and Welfare* 1 (1984), 165–175.
24. Information patterns and Nash equilibria in extensive games I, (with P. Dubey), *Mathematical Social Sciences* 8 (1984), 111–139.
25. Information patterns and Nash equilibria in extensive games II, (with P. Dubey), *Mathematical Social Sciences* 10 (1985), 247–262.
26. The existence and computation of competitive equilibria in markets with an indivisible commodity, (with Y. Yamamoto), *Journal of Economic Theory* 38 (1986), 118–136.
27. Economics with labor indivisibilities-Part I: optimal tax schedule, (with Y. Funaki), *Economic Studies Quarterly* 37 (1986), 11–29.
28. Economies with labor indivisibilities-Part II: optimal tax schedule, (with Y. Funaki), *Economic Studies Quarterly* 37 (1986), 199–222.
29. The core of a game with a continuum of players and finite coalitions: the model and some result, (with M. H. Wooders), *Mathematical Social Sciences* 12 (1986), 105–137.
30. The conventionally stable set in noncooperative games with limited observations I: definition and introductory arguments, *Mathematical Social Sciences* 13 (1987), 93–128.
31. The conventionally stable set in noncooperative games with limited observations II: the application to monopoly and oligopoly, *Economic Studies Quarterly* 39 (1988), 335–355.
32. Continuum economies with finite coalitions: core, equilibria and widespread externalities, (with P. Hammond and M. H. Wooders), *Journal of Economic Theory* 49 (1989), 113–134.

- 33.** The core of a continuum economy with widespread externalities and finite coalitions: From finite to continuum economies, (with M. H. Wooders), *Journal of Economic Theory* 49 (1989), 135–168.
- 34.** Final decisions, the Nash equilibrium concept and solvability in games with the common knowledge of logical abilities, (with T. Nagashima), *Mathematical Social Sciences* 22 (1991), 229–255.
- 35.** The ordered field property and a finite algorithm for the Nash bargaining solution, *International Journal of Game Theory* 20 (1992), 227–236.
- 36.** Convention, social prejudices and discrimination: a festival game with merrymakers, (with T. Kimura), *Games and Economic Behavior* 4 (1992), 511–527.
- 37.** A game theoretical description of the von Neumann growth model, *Game Theory and Economic applications: Lecture notes in Economics and Mathematical Systems* 389, eds. Dutta et al. (1992), 369–408.
- 38.** A game theoretical approach to the international debt overhang, (with J. Prokop), *Journal of Economics (Zeitschrift für Nationalökonomie)* 58 (1993), 1–24.
- 39.** Widespread externalities and perfectly competitive markets: Examples, (with M. H. Wooders), *Imperfection and Behavior in Economic Organizations*, eds. R. Gilles and P. Ruyes, Kluwer Academic Publisher, (1994), 71–87.
- 40.** Behavior strategies, mixed strategies and perfect recall, (with J. J. Kline), *International Journal of Game Theory* 24 (1995), 127–145.
- 41.** Axiomatic considerations of Nash equilibrium (abstract), *Bulletin of the Section of Logic* 24 (1995), 6–12.
- 42.** On symmetric agents: Comments on Kemp and Shimomura, (with K. Suzumura), *Japanese Economic Review* 46 (1995), 296–299 and 301.
- 43.** The nonemptiness of the f-core of a game without side payments, (with M. H. Wooders), *International Journal of Game Theory* 25 (1996), 245–258.
- 44.** N-person Nash bargaining with variable threats, (with W. Mao), *Japanese Economic Review* 47 (1996), 235–250.
- 45.** Game logic and its applications I, (with T. Nagashima), *Studia Logica* 57 (1996), 325–354.
- 46.** Game logic and its applications II, (with T. Nagashima), *Studia Logica* 58 (1997), 273–303.
- 47.** Axiomatic indefinability of common knowledge in finitary logics. *Epistemic Logic and the Theory of Game and Decision*, (with T. Nagashima), eds. M. Bacharach, L.A. Gerard-Varet, P. Mongin and H. Shin. Kluwer Academic Press, (1997), 69–93.
- 48.** Inductive game theory: discrimination and prejudices, (with A. Matsui). *Journal of Public Economic Theory* 1 (1999), 101–137.

49. Common knowledge logic and game logic. *Journal of Symbolic Logic* 64 (1999), 685–700.
50. Epistemic considerations of decision making in games. *Mathematical Social Sciences* 38 (1999), 105–137.
51. Epistemic logics and their game theoretical applications: Introduction. *Economic Theory* 19 (2002), 7-62.
52. Bounded interpersonal inferences and decision making, (with N.-Y. Suzuki). *Economic Theory* 19 (2002), 63-103.
53. A Map of common knowledge logics, (with T. Nagashima, N.-Y. Suzuki, and Y. Tanaka). *Studia Logica* 71 (2002), 57-86.
54. Epistemic logic of shallow depths and game-theoretical applications, (with N.-Y. Suzuki). *Advances in Modal Logic* Vol.3 (2002), F. Wolter et al eds. World Scientific Publishing Co. London. 279-298.
55. Epistemic models of shallow depths and decision making in games: Horticulture, (with N.-Y. Suzuki), *Journal of Symbolic Logic* 68 (2003), 163-186.
56. Utility theories in cooperative games, (with M. H. Wooders). *Handbook of Utility Theory Vol.2*. Chapter 19 (2004), 1065-1098. Kluwer Academic Press.
57. Duality in comparative statics in rental housing markets with indivisibilities, (with T. Ito and Y.-I. Osawa). *Journal of Urban Economics* 59 (2006), 142-170.
58. Inductive Game Theory: A Basic Scenario (with J. J. Kline), *Journal of Mathematical Economics* 44, (2008), 1332–1363.
59. Information Protocols and Extensive Games in Inductive Game Theory (with J. J. Kline), *Game Theory and Applications* 13, (2008), 57-83.
60. Corrigendum: Inductive Game Theory: A Basic Scenario (with J. J. Kline), *Journal of Mathematical Economics* 46, (2010), 620-622.
61. Inductive Game Theory: A Basic Scenario (with J. J. Kline), *Game Theory*, 83-128, (2010), ed. Huang Qiming. Sciyo.com. This is based on the above publications, 58 and 60.
62. Discrimination in Festival Games with Limited Observability and Accessibility (with A. Mitra), *Mathematical Social Sciences* 62 (2011), 34-45.
63. A Measure of Logical Inference and Its Game Theoretical Applications, (with N.-Y. Suzuki), *Logic, Rationality, and Interaction*, H. van Ditmarsch *et al.* ed., (2011), 139-150.
64. Two Dialogues on Epistemic Logics and Inductive Game Theory (with J. J. Kline), *Advances in Mathematics Research* 12, (2012), 199-238, Nova Science Publisher. New York.
65. A Simulation Study of Learning a Structure: Mike’s Bike Commuting, (with E. Akiyama, R. Ishikawa, and J. J. Kline), In Proceedings of 2nd International Conference

on Simulation and Modeling Methodologies, Technologies (SIMULTECH 2012), 208-217, 2012.

66. Inductive Game Theory: A Simulation Study of Learning a Social Situation, (with E. Akiyama, R. Ishikawa, and J. J. Kline), *Game Theory Relunched*, ISBN 978-953-51-1078-1, edited by Hardy Hanappi, pp. 55-76. InTech - open science, open minds. (2013).

67. Logic and Economics—Interactions between Subjective Thinking and Objective Worlds, *Economic Theory* 53 (2013), 1-8.

68. Partial Memories, Inductively Derived Views, and their Interactions with Behavior (with J. J. Kline), *Economic Theory*, 53, (2013), 27-59.

69. Understanding the Other through Social Roles (with J. J. Kline), to appear in *International Game Theory Review*.

Books

1. *Game Theory and Konnyaku Mondo* (in Japanese), Nihon Hyoron-sha, 2003. 350 pages.

2. *Game Theory and Mutual Misunderstanding: Scientific Dialogue in Five Acts*. Springer Verlag. 2004. 247 pages.

3. *Symposium with Poems* (in Japanese), Keiso Shobo, 2006. 204 pages.

4. *Social Justice, considered in Hell* (in Japanese), Keiso Shobo, 2007, 304 pages.

6.2. Guest Editor for Special Issues

1. “Logic & Foundation of the Theory of Games and Decision-1 (jointly with G. Bonanno and P. Mongin), *Mathematical Social Sciences* 36 (1998), 1-70.

2. “Logic & Foundation of the Theory of Games and Decision-2 (jointly with G. Bonanno and P. Mongin), *Mathematical Social Sciences* 38 (1999), 103-240.

3. “Logic and Economics”, *Economic Theory*, Vol. 19, No.1. (2002), 1-186.

4. “Logic and Economics: Cognitive-Inferential Limitations on Players, and their Mental-Behavioral Consequences”, *Economic Theory*. Now, editing.

6.3. Other Publications

1. *New Development in Game theory* (in Japanese), ed. Mitsuo Suzuki, Chapter 6 (pp. 171-210), Chapter 8 (pp. 243–261, with M. Nakayama). Tokyo-Tosho (1973).

2. The theory of the Nash social welfare function (in Japanese), *Keizai Seminar* (1980, April), 100–107.

3. Epistemic logic and game theory (in Japanese), Suuri Kagaku (1999, October), 69–75.

6.4. Unpublished Papers

1. Mere and specific knowledge of the existence of a Nash equilibrium, IPPS-DP.No.741, University of Tsukuba, August 1997.
2. Decision making in partially interactive games I: Game theoretic developments, IPPS-DP. No.743, University of Tsukuba, September 1997.
3. Evolution of Thoughts: Deductive Game Theories in the Inductive Game Situations, Part I, IPPS-DP. No.781, University of Tsukuba, June 1998.
4. Evolution of thoughts: deductive game theories in the inductive game situations, Part II, IPPS-DP. No.782, University of Tsukuba, June 1998.
5. On "Paradoxes" in the Centipede and Chain-Store Games I: Nonepistemic Considerations, IPPS. No.810, University of Tsukuba, February 1999.
6. Semantics of epistemic logics of shallow depths for game theory, (with N-Y. Suzuki), IPPS.DP. 814, University of Tsukuba, March 1999.
7. Modeling a player's perspective I: Info-memory protocols, (with J. J. Kline,) (2003).
8. Modeling a player's perspective II: Inductive derivation of an individual view, (with J. J. Kline), 2004.
9. Small and partial views derived from limited experiences, No.1166, (J. J. Kline (2006)), <http://www.sk.tsukuba.ac.jp/SSM/libraries/pdf1151/1166.pdf>, University of Tsukuba.

6.5. Current Research

In last 15 years, I have been working on four fields. The first two are about the foundations of game theory and economics, and the third is about applications of market equilibrium theory with indivisible goods to rental housing markets.

Social Justice for the Entire World: It is partially based on the Nash social welfare function, which was studied around 1976~77. After it, I have been thinking about the contractarian and epistemic foundations for it. Also, social justice for the world has been considered along the same line, and also being based on multitudes of empirical facts.

Epistemic Logic and Deductive Game Theory: This is the foundation of *ex ante* decision making in a game situation. Many of my recent publications from the paper No.45 are from this project.

Inductive Game Theory: This is also related to the foundation of game theory: it deals with the origin and emergence of individual beliefs. I have been working on this subject for long time. Recently, I published one paper (the paper, No.48), and wrote various papers (with J. J. Kline).

Market Equilibrium Theory and its Applications to Housing Markets: I have been working on this subject for long time (from paper no.21), too. In these ten years, I have been developing a computer simulation method, and now, the research is in the stage to have a connection to econometrics.