

CURRICULUM VITAE

**Takashi Kamihigashi**

**CONTACT INFORMATION**

**Office Address:** RIEB  
(Research Institute for Economics and Business Administration)  
Kobe University  
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**EDUCATION**

**Degrees:**

Ph.D. in Economics University of Wisconsin at Madison, USA, 1994.

M.S. in Economics University of Wisconsin at Madison, USA, 1990.

B.A. in Economics Kyoto University, Japan, 1989.

**Ph.D. Dissertation:**

Title: Stability and Complexity in Perfect Foresight Models  
Dissertation Advisor: William A. Brock  
Committee: Steven N. Durlauf, Kenneth D. West

**CURRENT AND PREVIOUS POSITIONS**

**Employment:**

Director	RIEB, Kobe University, Japan, April 2014 - present.
Professor	RIEB, Kobe University, Japan, April 2003 - present.
Associate Professor	RIEB, Kobe University, Japan, June 2000 - March 2003.
Associate Professor	Department of Economics, State University of New York at Stony Brook, USA, September 2000 - May 2002.
Assistant Professor	Department of Economics, State University of New York at Stony Brook, USA, September 1994 - August 2000.

**Temporary and Other Positions:**

Affiliated Professor	IPAG Business School, 184 Bd Saint Germain, 75006 Paris, France, September 2013 - Present.
Distinguished Visiting Researcher	Peking University, Beijing, China, August 2012.
Invited Professor	Department of Economics, University of Paris 1, May 2012 - June 2012.
Visiting Professor	Keio University, Tokyo, Japan, September 2009 - November 2009.
Adjunct Professor	KIER, Kyoto University, Kyoto, Japan, April 2005 - March 2006.
Invited Researcher	Ecole d'Economie de Paris, Paris, France, August 2007.
Invited Researcher	CNRS-CERMSEM, Université de Paris 1, Panthéon-Sorbonne, Paris, France, February 2006 - February 2007.
Adjunct Professor	KIER, Kyoto University, Kyoto, Japan, April 2005 - March 2006.
Invited Researcher	CORE, Université Catholique de Louvain, Belgium, March 2004 - June 2004.

## **PUBLICATIONS**

### **Refereed Articles in Journals:**

1. Shin-ichiro Kumamoto and Takashi Kamihigashi, "Power Laws in Stochastic Processes for Social Phenomena: An Introductory Review," *Frontiers in Physics*, 15 March 2018, DOI: 10.3389/fphy.2018.00020.
2. Carmen Camacho, Takashi Kamihigashi, Cagri Saglam, "Robust Comparative Statics for Non-monotone Shocks in Large Aggregative Games," *Journal of Economic Theory* 174, 288-299, March 2018.
3. Jinhui Chen, Tetsuya Takiguchi, Yasuo Takatsuki, Munehiko Itoh, and Takashi Kamihigashi, "An AI-based Approach to Auto-analyzing Historical Handwritten Business Documents: As Applied to the Kanebo Database," *Journal of Computational Social Science* 1(1), January 2018.
4. Takashi Kamihigashi, "A Simple Optimality-Based No-Bubble Theorem for Deterministic Sequential Economies with Strictly Monotone Preferences," *Mathematical Social Sciences*, forthcoming, October 2017.
5. Takashi Kamihigashi, "A Generalization of Fatou's Lemma for Extended Real-Valued Functions on  $\sigma$ -Finite Measure Spaces: With an Application to Infinite-Horizon Optimization in Discrete Time," *Journal of Inequalities and Applications* 2017(1):24, 1-15, doi:10.1186/s13660-016-1288-5, January 2017.
6. Lise Clain-Chamosset-Yvrard and Takashi Kamihigashi, "International Transmission of Bubble Crashes in a Two-Country Overlapping Generations Model," *Journal of Mathematical Economics* 68, 115-126, January 2017.
7. Takashi Kamihigashi, "41 Counterexamples to Property (B) of the Discrete Time Bomber Problem," *Annals of Operations Research* 248(1) 579-588, January 2017.
8. Takashi Kamihigashi and Masayuki Yao, "Infinite-Horizon Deterministic Dynamic Programming in Discrete Time: A Monotone Convergence Principle and a Penalty Method," *Optimization* 65(10), 1899-1908, June 2016.
9. Takashi Kamihigashi and John Stachurski, "Seeking Ergodicity in Dynamic Economies," *Journal of Economic Theory* 163, 900-924, May 2016.
10. Takashi Kamihigashi, Kevin Reffett, and Masayuki Yao, "An Application of Kleene's Fixed Point Theorem to Dynamic Programming: A Note," *International Journal of Economic Theory* 11(4), 429-434, December 2015.

11. Takashi Kamihigashi, "Multiple Interior Steady States in the Ramsey Model with Elastic Labor Supply," *International Journal of Economic Theory* 11(1), 25-37, March 2015.
12. Takashi Kamihigashi and John Stachurski, "Perfect Simulation for Models of Industry Dynamics," *Journal of Mathematical Economics* 56, 9-14, January 2015.
13. Takashi Kamihigashi, "Elementary Results on Solutions to the Bellman Equation of Dynamic Programming: Existence, Uniqueness, and Convergence," *Economic Theory* 56(2), 251-273, June 2014.
14. Takashi Kamihigashi and John Stachurski, "Stochastic Stability in Monotone Economies," *Theoretical Economics* 9(2), 383-407, May 2014.
15. Takashi Kamihigashi, "An Order-Theoretic Approach to Dynamic Programming: An Exposition," *Economic Theory Bulletin* 2(1), 13-21, April 2014.
16. Yiyong Cai, Takashi Kamihigashi, and John Stachurski, "Stochastic Optimal Growth with Risky Labor Supply," *Journal of Mathematical Economics* 50, 167-176, January 2014.
17. Takashi Kamihigashi and John Stachurski, "Simple Fixed Point Results for Order-Preserving Self-Maps and Applications to Nonlinear Markov Operators," *Fixed Point Theory and Applications* 2013:351, doi:10.1186/1687-1812-2013-351, December 2013.
18. Takashi Kamihigashi, "Ergodic Chaos and Aggregate Stability: A Deterministic Discrete-Choice Model of Wealth Distribution Dynamics," *International Journal of Economic Theory* 9(1), 45-56, March 2013.
19. Taiji Furusawa and Takashi Kamihigashi, "Threats or Promises? A Built-in Mechanism of Gradual Reciprocal Trade Liberalization," *Japanese Economic Review* 63(2), June 2012.
20. Takashi Kamihigashi, "Discrete Choice and Complex Dynamics in Deterministic Optimization Problems," *Macroeconomic Dynamics* 16 (Supplement 1), 52-69, April 2012.
21. Takashi Kamihigashi and John Stachurski, "An Order-Theoretic Mixing Condition for Monotone Markov Chains," *Statistics and Probability Letters* 82(2), 262-267, February 2012.
22. Ken-ichi Akao, Takashi Kamihigashi, and Kazuo Nishimura "Monotonicity and Continuity of the Critical Capital Stock in the Dechert-Nishimura Model," *Journal of Mathematical Economics* 47(6), 677-682, December 2011.
23. Takashi Kamihigashi, "Recurrent Bubbles," *Japanese Economic Review* 62(1), 27-62, March 2011.

24. Takashi Kamihigashi and Taiji Furusawa, "Global Dynamics in Repeated Games with Additively Separable Payoffs," *Review of Economic Dynamics* 13(4), 899-918, October 2010.
25. Takashi Kamihigashi, "On the Principle of Optimality for Nonstationary Deterministic Dynamic Programming," *International Journal of Economic Theory* 4(4), 519-525, December 2008.
26. Takashi Kamihigashi, "The Spirit of Capitalism, Stock Market Bubbles, and Output Fluctuations," *International Journal of Economic Theory* 4(1), 3-28, March 2008.
27. Takashi Kamihigashi, "Stochastic Optimal Growth with Bounded or Unbounded Utility and with Bounded or Unbounded Shocks," *Journal of Mathematical Economics* 43(3-4), 477-500, April 2007.
28. Takashi Kamihigashi and Santanu Roy, "A Nonsmooth, Nonconvex Model of Optimal Growth," *Journal of Economic Theory* 132(1), 435-460, January 2007.
29. Takashi Kamihigashi and Santanu Roy, "Dynamic Optimization with a Nonsmooth, Nonconvex Technology: The Case of a Linear Objective Function," *Economic Theory* 29(2), 325-340, October 2006.
30. Takashi Kamihigashi, "Almost Sure Convergence to Zero in Stochastic Growth Models," *Economic Theory* 29(1), 231-237, September 2006.
31. Takashi Kamihigashi, "Necessity of the Transversality Condition for Stochastic Models with Bounded or CRRA Utility," *Journal of Economic Dynamics and Control* 29(8), 1313-1329, August 2005.
32. Takashi Kamihigashi, "Necessity of Transversality Conditions for Stochastic Problems," *Journal of Economic Theory* 109(1), 140-149, March 2003.
33. Takashi Kamihigashi, "A Simple Proof of the Necessity of the Transversality Condition," *Economic Theory* 20(2), 427-433, September 2002.
34. Takashi Kamihigashi, "Externalities and Nonlinear Discounting: Indeterminacy," *Journal of Economic Dynamics and Control* 26(1), 141-169, January 2002.
35. Takashi Kamihigashi, "Necessity of Transversality Conditions for Infinite Horizon Problems," *Econometrica* 69(4), 995-1012, July 2001.
36. Takashi Kamihigashi, "Increasing Marginal Impatience and Intertemporal Substitution," *Journal of Economics* 72(1), 67-79, 2000.

37. Takashi Kamihigashi, "Indivisible Labor Implies Chaos," *Economic Theory* 15(3), 585-598, May 2000.
38. Takashi Kamihigashi, "The Policy Function of a Discrete-Choice Problem is a Random Number Generator," *Japanese Economic Review* 51(1), 51-71, March 2000.
39. Takashi Kamihigashi, "A Simple Proof of Ekeland and Scheinkman's Result on the Necessity of a Transversality Condition," *Economic Theory* 15(2), 463-468, March 2000.
40. Takashi Kamihigashi, "Chaotic Dynamics in Quasi-Static Systems: Theory and Applications," *Journal of Mathematical Economics* 31(2), 183-214, March 1999.
41. Takashi Kamihigashi, "Uniqueness of Asset Prices in an Exchange Economy with Unbounded Utility," *Economic Theory* 12(1), 103-122, July 1998.
42. Takashi Kamihigashi, "Real Business Cycles and Sunspot Fluctuations Are Observationally Equivalent," *Journal of Monetary Economics* 37(1), 105-117, February 1996.

#### **Refereed Articles in Books:**

1. Takashi Kamihigashi, "Regime-Switching Sunspot Equilibria in a One-Sector Growth Model with Aggregate Decreasing Returns and Small Externalities," in *Sunspots and Non-linear Dynamics: Essays in Honor of Jean-Michel Grandmont (Studies in Economic Theory)*, edited by K. Nishimura, A. Venditti, and N. Yannelis, Springer, pp. 125-146, 2007 (December 2016).
2. Takashi Kamihigashi and John Stachurski, "Stability Analysis for Random Dynamical Systems in Economics," in *Rabi N. Bhattacharya: Selected Papers*, edited by M. Denker and E.C. Waymire, Springer, pp. 363-374, August 2016.
3. Takashi Kamihigashi, "Status Seeking and Bubbles," in *International Trade and Economic Dynamics: Essays in Memory of Koji Shimomura*, edited by T. Kamihigashi and L. Zhao. Springer Heidelberg: Springer, pp. 383-392, December 2008.
4. Takashi Kamihigashi, "Transversality Conditions and Dynamic Economic Behavior," in *The New Palgrave Dictionary of Economics, 2nd Edition*, edited by S. Durlauf and L. Blume. Hampshire: Macmillan, Volume 8, pp. 384-387, May 2008.

#### **Non-refereed Article:**

Takashi Kamihigashi, Kazuhiko Seki, and Masahiko Shibamoto, "Measuring Social Change Using Text Data: A Simple Distributional Approach," in *Reconstruction of the*

*Public Sphere in the Socially Mediated Age*, edited by Kaoru Endo, Prof. Satoshi Kurihara, Takashi Kamihigashi, Fujio Toriumi, Springer, pp. 139-163, November 2017.

Jinhui Chen, Takashi Kamihigashi, Munehiko Itoh, Yasuo Takatsuki, Tetsuya Takiguchi, Yasuo Ariki, "SIFT Boosting for Handwriting Recognition," MIRU 2016 (The 19th Meeting on Image Recognition and Understanding), PS2-48, Aug. 2016

### **Articles in Japanese:**

1. Takashi Kamihigashi, "Dynamic Optimization in Macroeconomics," Keizai Seminar 662 (October-November), 67-73, 2011.
2. Takashi Kamihigashi, "Necessity and Sufficiency of the Transversality Condition," in *Nonlinear Equilibrium Dynamics: Indeterminacy and Complexity*, edited by K. Nishimura and S. Fukuda. Tokyo: Tokyo University Press, 2004, pp. 89-118.
3. Takashi Kamihigashi, "The Policy Function of a Discrete-Choice Problem is a Random Number Generator," in *Trends in Modern Economics 2000 (Gendai Keizaigaku no Choryu 2000)*, edited by A. Okada, K. Kamiya, M. Kuroda, and K. Ban. Tokyo: Toyo Keizai, Inc., 2000, pp. 177-200.

### **Edited Books:**

Kaoru Endo, Satoshi Kurihara, Takashi Kamihigashi, and Fujio Toriumi, *Reconstruction of the Public Sphere in the Socially Mediated Age*, Springer, November 2017.

Takashi Kamihigashi and Laixun Zhao, *International Trade and Economic Dynamics: Essays in Memory of Koji Shimomura*, Heidelberg: Springer, December 2008.

## **PROFESSIONAL ACTIVITIES**

### **Editorial Service:**

Journal of Computational Social Science (Editor-in-Chief): July 2017 - present

Macroeconomic Dynamics (Associate Editor): January 2015 - present

Mathematical Social Sciences (Associate Editor): January 2014 - present.

Economic Theory Bulletin (Associate Editor): April 2013 - present.

The Japanese Accounting Review (Associate Editor): April 2011 – present.

DEPOCEN Working Paper Series (Editorial Council): October 2007 - present.

Economic Theory (Associate Editor): January 2003 - present.

Kobe Economic & Business Review (Editor): April 2008 - March 2011.

**Conference Organizer:**

*RIEB Workshop on Mathematical Economics*, (jointly organized by RIEB, Kobe University and RCME) November 2010.

*Globalization, International Trade, and Economic Dynamics in Memory of Koji Shimomura* (co-organized with Laixun Zhao), Kobe, November 2007.

*Conference on Indeterminacy and Sunspots in Macroeconomics* (co-organized with Jess Benhabib), New York, November 1997.

**Conference Presentations in English:**

1. “Computational Methods in Dynamic Macroeconomics,” *Computational Social Science Japan Kickoff Workshop*, Tokyo, Japan, February 2016.
2. “Robust Comparative Statics of Non-Monotone Shocks in Large Aggregative Games,” *Time, Uncertainties and Strategies, a Novo Tempus Conference*, Paris, France, December 2015.
3. “A Dynamic General Equilibrium IS-LM Model,” *Singapore Economic Review Conference 2015*, Singapore, August 2015.
4. “Seeking Ergodicity in Dynamic Economies,” *15th SAET Conference on Current Trends in Economics*, Cambridge, UK, July 2015.
5. “A Dynamic General Equilibrium IS-LM Model,” *IEFS Japan Annual Meeting 2015*, Kyoto, Japan, May 2015.
6. “A Dynamic General Equilibrium IS-LM Model,” *13th Viennese Workshop Optimal Control and Dynamic Games*, Vienna, Austria, May 2015.
7. “Extensions of Fatou’s Lemma and the Dominated Convergence Theorem,” 6th International Conference of the Society for Mathematical Economics, Keio University, Japan, January 2015.

8. "Asset Bubbles in a Small Open Economy: A Simple Representative-Agent Model," *7th Vietnam Economist Annual Meeting*, Ho Chi Minh City, Vietnam, June 2014.
9. "Asset Bubbles in a Small Open Economy: A Simple Representative-Agent Model," *Dynamic Interactions for Economic Theory Conference 2013*, Paris, France, December 2013.
10. "An Order-Theoretic Approach to Dynamic Programming," *Asia-Pacific Conference on Economic Dynamics*, Ho Chi Minh City, Vietnam, November 2013.
11. "Elementary Results on Solutions to the Bellman Equation of Dynamic Programming: Existence, Uniqueness, and Convergence," Asian Meeting of the Econometric Society, Singapore, August 2013.
12. "Exact Sampling from the Stationary Distribution of Entry-Exit Models," *13th SAET Conference on Current Trends in Economics*, Paris, France, July 2013.
13. "Ramsey, Kurz, Sidrauski and Keynes: A Dynamic General Equilibrium IS-LM Model," *Conference on Instability and Public Policies in a Globalized World*, Marseille, France, June 2013.
14. "Asset Bubbles in a Small Open Economy," *International Conference on Marketing Quality, Trade and Dynamics*, Kyoto, Japan, April 2013.
15. "Asset Bubbles in a Small Open Economy," *12th SAET (Society for the Advancement of Economic Theory) Conference*, Queensland, Australia, June 2012.
16. "Existence and Uniqueness of a Fixed Point for the Bellman Operator in Deterministic Dynamic Programming," *European Workshop on General Equilibrium Theory*, Exeter, UK, June 2012.
17. "Asset Bubbles in a Small Open Economy," *RIEB Workshop on Economic Dynamics*, Kobe University, Japan, March 2012.
18. "Existence and Uniqueness of a Fixed Point for the Bellman Operator in Dynamic Programming," *Workshop in Honor of Cuong Le Van*, Exeter, UK, September, 2011.
19. "The Bellman Operator as a Monotone Map," *11th SAET (Society for Advancement of Economic Theory) Conference*, Ancao (Faro), Portugal, June-July, 2011.
20. "Discrete Choice and Complex Dynamics in Deterministic Optimization Problems," *International Conference: New Challenges for Macroeconomic Regulation: Financial Crisis, Stabilisation Policy and Sustainable Development*, Marseille, France, June, 2011.

21. "Recurrent Bubbles," *RIEB Workshop on Mathematical Economics*, Kobe University, Japan, November 2010.
22. "Recurrent Bubbles" (Nakahara Prize Lecture), *Annual Meeting of the Japanese Economic Association*, Kwansai Gakuin University, Japan, September 2010.
23. "Asset Bubbles in a Small Open Economy," *7th Asian General Equilibrium Theory Workshop (GETA Conference)*, Hanoi, Vietnam, August 2010.
24. "Stochastic Stability in Monotone Economies," *10th SAET (Society for Advancement of Economic Theory) Conference*, Singapore, August 2010.
25. "Rational Asset Price Bubbles in Small Open Economies," *Workshop on Mathematical Economics*, Keio University, Japan, November 2009.
26. "Rational Asset Price Bubbles in Small Open Economies," *7th Joint Symposium between Kobe University and Hanyan University on "Changes and Challenges in the East Asian Financial Markets"*, Seoul, Korea, September 2009.
27. "Global Dynamics in Infinitely Repeated Games with Additively Separable Continuous Payoffs," *ICNAAM 2009*, Rethymno, Greece, September 2009.
28. "Status Seeking and Bubbles," *5th International Conference on Economic Theory: Indeterminacy and Non-linear Dynamics in Intertemporal Equilibrium Models*, Kyoto, Japan, March 9-10, 2008.
29. "The Spirit of Capitalism, Stock Market Bubbles, and Output Fluctuations," *Workshop on Mathematical Economics*, Tokyo, Japan, October 26-28, 2007.
30. "The Spirit of Capitalism, Stock Market Bubbles, and Output Fluctuations," *Workshop on Economic Theory and Dynamics*, Kyoto, Japan, October 18, 2007.
31. "A Nonsmooth, Nonconvex Model of Optimal Growth," *Instability and Fluctuations in Intertemporal Equilibrium Models*, Marseille, France, June 2005.
32. "Nonlinear Duality for Dynamic Optimization," *3rd International Conference on Mathematical Analysis in Economic Theory*, Tokyo, Japan, December 2004.
33. "Nonlinear Duality for Dynamic Optimization," *2nd International Conference on Economic Theory*, Kyoto, Japan, December 2004.
34. "Nonlinear Duality for Dynamic Optimization," *Kobe COE Conference on Economic Theory*, Kobe, Japan, November 2004.

35. "Almost Sure Convergence to Zero in Stochastic Growth Models," *AESS International Conference on Economic Theory*, Kobe, Japan, June 2004.
36. "A Deterministic Economy Generates a Stochastic Path," *2002 Annual Conference of the Japan Society for Industrial and Applied Mathematics*, Tokyo, Japan, September 2002.
37. "A Deterministic Economy Generates a Stochastic Process," *International Conference on International Trade, Dynamics and Growth*, Kobe, Japan, July 2001.
38. "A Deterministic Economy Generates a Stochastic Process," *Mathematical Analysis in Economics*, Kyoto, Japan, December 2000.
39. "The Policy Function of a Discrete-Choice Problem is a Random Number Generator," *Annual Meeting of the Japanese Economic Association*, Tokyo, Japan, October 1999.
40. "Necessity of Transversality Conditions for Infinite Horizon Problems," *Econometric Society Summer Meetings*, Madison, Wisconsin, USA, June 1999.
41. "Necessity of Transversality Conditions for Infinite Horizon Problems," *Econometric Society Winter Meetings*, New York, USA, January 1999.
42. "Externalities and Nonlinear Discounting: Indeterminacy," *46th International Atlantic Economic Society Conference*, Boston, USA, October 1998.
43. "Necessity of Transversality Conditions for Infinite Horizon Problems," *International Game Theory Conference*, Stony Brook, USA, July 1998.
44. "Externalities and Nonlinear Discounting: Indeterminacy," *Conference on Indeterminacy and Sunspots in Macroeconomics*, New York, USA, November 1997.
45. "Uniqueness of Asset Prices in an Exchange Economy with Unbounded Utility," *1994 Meetings of the Society for Economic Dynamics and Control*, Los Angeles, USA, July 1994.

**Refereeing:**

Advances in Mathematical Economics  
Applied Economics  
Applied Mathematics Letters  
American Economic Review  
AUCO Czech Economic Review  
Cambridge University Press  
Canadian Journal of Economics  
Econometrica

Economic Journal  
Economic Modelling  
Economic Theory  
Economics Bulletin  
Economics Letters  
International Economic Review  
International Journal of Economic Theory  
Japanese Accounting Review  
Japanese Economic Review  
Journal of Difference Equations and Applications  
Journal of Economic Dynamics and Control  
Journal of Economic Growth  
Journal of Economic Theory  
Journal of Macroeconomics  
Journal of Mathematical Economics  
Journal of Money, Credit, and Banking  
Journal of Optimization Theory and Applications  
Journal of Public Economic Theory  
Macroeconomic Dynamics  
Mathematical Social Sciences  
National Science Foundation  
Review of Economic Dynamics  
SpringerBriefs  
SpringerPlus  
Theoretical Economics

**Awards:**

Koji Shimomura Award, *IEFS Japan*, 2015.  
Academic Award, *Murao Scholarship Foundation*, 2011.  
Nakahara Prize, *Japanese Economic Association*, 2010.  
Outstanding Referee Award, *Journal of Economic Dynamics and Control*, 2006

**Grants and Fellowships:**

Japan Society for the Promotion of Science, 2015-2019.  
Japan Society for the Promotion of Science, 2012-2014.  
Japan Society for the Promotion of Science, 2009-2011.  
Inamori Foundation, 2005.  
Japan Society for the Promotion of Science, 2003-2006.  
Japan Economic Research Foundation, 2002.  
Japan Society for the Promotion of Science, 2001-2002.

*Takashi Kamihigashi*

WARF Dissertation Fellowship, University of Wisconsin-Madison, 1993-1994.Dr.  
Yamane Fellowship, 1990.