# GEORGE JOSEPH MAILATH

# Walter H. Annenberg Professor in the Social Sciences University of Pennsylvania

May 24, 2023<sup>1</sup>

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University of Pennsylvania
Philadelphia, PA 19104-6297

## **CURRENT APPOINTMENTS:**

Walter H. Annenberg Professor in the Social Sciences, University of Pennsylvania, since July 2003.

Professor of Economics, University of Pennsylvania, since July 1995.

Goldsmith Foundation Professorial Fellow, Research School of Economics, Australian National University, July 2017–December 2023.

## **PAST APPOINTMENTS:**

Professor, Research School of Economics, Australian National University, June 2014–June 2017.

Alfred Cowles Professor of Economics, Yale University, July 2006–June 2007.

Edmund J. and Louise W. Kahn Endowed Term Professor in the Social Sciences, University of Pennsylvania, July 1998–June 2003.

Associate Professor of Economics, University of Pennsylvania, July 1992–June 1995. Assistant Professor of Economics, University of Pennsylvania, July 1985–June 1992.

# **EDUCATION:**

Ph.D. (Economics), Princeton University, 1985.

M.A. (Economics), Princeton University, 1983.

B.Ec. (First Class Honours), Australian National University, 1980.

# **REFEREED PUBLICATIONS:**

"Trust in Risk Sharing: A Double-Edged Sword" with Harold L. Cole, Dirk Krueger, and Yena Park. *Review of Economic Studies*, forthcoming (PIER Working Paper 20-002, August 19, 2022).

"Learning under Diverse World Views: Model-Based Inference," with Larry Samuelson, *American Economic Review*, May 2020, **110** (5): 1464–1501; with online appendix.

"The Curse of Long Horizons," with V. Bhaskar, *Journal of Mathematical Economics*, May 2019, **82**: 74–89.

"Premuneration Values and Investments in Matching Markets," with Andrew Postlewaite and Larry Samuelson, *Economic Journal*, September 2017, **127**: 2041–2065; with online supplemental material.

<sup>&</sup>lt;sup>1</sup>A more detailed CV is available on my homepage.

- "When and How the Punishment Must Fit the Crime," with Volker Nocke and Lucy White, *International Economic Review*, May 2017, **58** (2): 315–330.
- "Buying Locally," with Andrew Postlewaite and Larry Samuelson, *International Economic Review*, November 2016, **57** (4): 1179–1200.
- "Stable Matching with Incomplete Information," with Qingmin Liu, Andrew Postlewaite and Larry Samuelson, *Econometrica*, March 2014, **82** (2): 541–587; with online supplemental material.
- "Incentive Compatibility and Differentiability: New Results and Classic Applications," with Ernst-Ludwig von Thadden, *Journal of Economic Theory*, September 2013, **148** (5): 1841–1861.
- "A Foundation for Markov Equilibria in Sequential Games with Finite Social Memory," with V. Bhaskar and Stephen Morris, *Review of Economic Studies*, July 2013, **80** (3), 925–948.
- "Pricing and Investments in Matching Markets," with Andrew Postlewaite and Larry Samuelson, *Theoretical Economics*, May 2013, **8** (2): 535–590.
- "Common Learning with Intertemporal Dependence," with Martin W. Cripps, Jeffrey C. Ely, and Larry Samuelson, *International Journal of Game Theory*, February 2013, **42** (1): 55–98.
- "Folk Theorems with Bounded Recall under (Almost) Perfect Monitoring," with Wojciech Olszewski, *Games and Economic Behavior*, January 2011, **71** (1): 174–192.
- "Common Learning," with Martin W. Cripps, Jeffrey C. Ely, and Larry Samuelson, *Econometrica*, July 2008, **76** (4): 909–933.
- "Purification in the Infinitely-Repeated Prisoners' Dilemma," with V. Bhaskar and Stephen Morris, *Review of Economic Dynamics*, July 2008, **11** (3): 515–528.
- "Does Competitive Pricing Cause Market Breakdown Under Extreme Adverse Selection?" with Georg Nöldeke, *Journal of Economic Theory*, May 2008, **140** (1): 97–125.
- "Disappearing Private Reputations in Long-Run Relationships," with Martin W. Cripps and Larry Samuelson, *Journal of Economic Theory*, May 2007, **134** (1): 287–316.
- "Social Assets," with Andrew Postlewaite, *International Economic Review*, November 2006, **47** (4): 1057–1091.
- "Coordination Failure in Repeated Games with Almost-Public Monitoring," with Stephen Morris, *Theoretical Economics*, 2006, **1**: 311–340.
- "Contemporaneous Perfect Epsilon-Equilibria," with Andrew Postlewaite and Larry Samuelson, *Games and Economic Behavior*, October 2005, **53** (1): 126–140.
- "Business Strategy, Human Capital, and Managerial Incentives," with Volker Nocke and Andrew Postlewaite, *Journal of Economics and Management Strategy*, December 2004, **13** (4): 617-633.
- "Sunk Investments Lead to Unpredictable Prices," with Andrew Postlewaite and Larry Samuelson, *American Economic Review*, September 2004, **94** (4): 896–918.
- "Imperfect Monitoring and Impermanent Reputations," with Martin W. Cripps and Larry Samuelson, *Econometrica*, March 2004, **72** (2): 407-432.
- "Market Selection and Asymmetric Information," with Alvaro Sandroni, *Review of Economic Studies*, April 2003, **70** (2): 343–368.

- "The Maximum Efficient Equilibrium Payoff in the Repeated Prisoners' Dilemma," with Ichiro Obara and Tadashi Sekiguchi, *Games and Economic Behavior*, July 2002, **40** (1): 99–122.
- "Private Strategies in Finitely Repeated Games with Imperfect Public Monitoring" with Steven A. Matthews and Tadashi Sekiguchi, *Contributions to Theoretical Economics*, 2002, **2** (1): Article 2.
- "Repeated Games with Almost-Public Monitoring," with Stephen Morris, *Journal of Economic Theory*, January 2002, **102** (1): 189–228.
- "Efficient Non-Contractible Investments in Large Economies," with Harold L. Cole and Andrew Postlewaite, *Journal of Economic Theory*, December 2001, **101** (2): 333–373.
- "Investment and Concern for Relative Position," with Harold L. Cole and Andrew Postlewaite, *Review of Economic Design*, September 2001, **6** (2): 241–261. Reprinted in *Markets, Games, and Organizations: Essays in Honor of Roy Radner*, edited by Thomas Marschak and Tatsuro Ichiishi (Springer-Verlag, 2003).
- "Who Wants a Good Reputation?" with Larry Samuelson, *Review of Economic Studies*, April 2001, **68** (2): 415–441. (Article reprinted in July 2001 issue to correct printer's errors.) Reprinted in *The Economics of Reputation*, edited by Jill J. McCluskey and Jason Winfree (Edward Elgar, 2017).
- "Efficient Non-Contractible Investments in Finite Economies," with Harold L. Cole and Andrew Postlewaite, *Advances in Theoretical Economics*, 2001, **1** (1): Article 2.
- "Endogenous Inequality in Integrated Labor Markets with Two-Sided Search," with Larry Samuelson and Avner Shaked, *American Economic Review*, March 2000, **90** (1): 46–72.
- "Class Systems and the Enforcement of Social Norms," with Harold L. Cole and Andrew Postlewaite, *Journal of Public Economics*, October 1998, **70** (1): 5–35.
- "Correlated Equilibria and Local Interactions," with Larry Samuelson and Avner Shaked, *Economic Theory*, October 1997, **9** (3): 551–556.
- "How Proper is Sequential Equilibrium?" with Larry Samuelson and Jeroen Swinkels, *Games and Economic Behavior*, February 1997, **18** (2): 193–218. Typographic errors listed in *Games and Economic Behavior*, May 1997, **19** (2): 249.
- "Normal Form Structures in Extensive Form Games," with Larry Samuelson and Jeroen Swinkels, *Journal of Economic Theory*, December 1994, **64** (2): 325–371.
- "A Positive Analysis of Bank Closure," with Loretta J. Mester, *Journal of Financial Intermediation*, June 1994, **3** (3): 272–299.
- "Financing Losers in Competitive Markets," with Andrew Abel, *Journal of Financial Intermediation*, March 1994, **3** (2): 139–165.
- "Belief-Based Refinements in Signalling Games," with Masahiro Okuno-Fujiwara and Andrew Postlewaite, *Journal of Economic Theory*, August 1993, **60** (2): 241–276.
- "Extensive Form Reasoning in Normal Form Games," with Larry Samuelson and Jeroen Swinkels, *Econometrica*, March 1993, **61** (2): 273–302. Reprinted in *Foundations in Economic Theory: A Volume in Honor of Hugo F. Sonnenschein*, edited by Matthew O. Jackson and Andrew McLennan (Springer, Berlin, 2008).
- "Endogenous Sequencing of Firm Decisions," *Journal of Economic Theory*, February 1993, **59** (1): 169–182.

- "Learning, Mutation, and Long Run Equilibria in Games," with Michihiro Kandori and Rafael Rob, *Econometrica*, January 1993, **61** (1): 29–56. Reprinted in *Recent Developments in Game Theory*, edited by Eric S. Maskin (Edward Elgar Pub, Northampton, MA, 1999).
- "Social Norms, Savings Behavior, and Growth," with Harold L. Cole and Andrew Postlewaite, *Journal of Political Economy*, December 1992, **100** (6): 1092–1125. Erratum: "Response to "Aristocratic Equilibria"," also with Harold L. Cole and Andrew Postlewaite, *Journal of Political Economy*, April 1995, **103** (2): 439–443.
- "Collusion in Second Price Auctions with Heterogeneous Bidders," with Peter Zemsky, *Games and Economic Behavior*, November 1991, **3** (4): 467–486.
- "The Impact of Asymmetric Information on Entry Deterrence—An Example," *Economics Letters*, March 1991, **35** (3): 333–338.
- "Workers versus Firms: Bargaining over a Firm's Value," with Andrew Postlewaite, *Review of Economic Studies*, July 1990, **57** (3): 369–380.
- "Asymmetric Information Bargaining Problems with Many Agents," with Andrew Postlewaite, *Review of Economic Studies*, July 1990, **57** (3): 351–367. Reprinted in *The Economic Theory of Incentives (International Library of Critical Writings in Economics series, #338)*, edited by David Martimort (Edward Elgar Pub, 2017).
- "Simultaneous Signaling in an Oligopoly Model," *Quarterly Journal of Economics*, May 1989, **104** (2): 417-427.
- "An Abstract Two Period Game with Simultaneous Signaling—Existence of Separating Equilibria," *Journal of Economic Theory*, December 1988, **46** (2): 373–394.
- "On the Behavior of Separating Equilibria of Signaling Games with a Finite Set of Types as the Set of Types Becomes Dense in an Interval," *Journal of Economic Theory*, April 1988, **44** (2): 413–424.
- "Incentive Compatibility in Signaling Games with a Continuum of Types," *Econometrica*, November 1987, **55** (6): 1349–1365.

## BOOKS:

Modeling Strategic Behavior: A Graduate Introduction to Game Theory and Mechanism Design, Scientific World Press, 2019 (PDF version available at http://web.sas.upenn.edu/gmailath/books/modeling-strategic-behavior/). Repeated Games and Reputations: Long-Run Relationships, with Larry Samuelson, Oxford University Press, Oxford and New York, 2006.

## **OTHER PUBLICATIONS:**

- "Laws and Authority," with Stephen Morris and Andrew Postlewaite, *Research in Economics*, March 2017, **71** (1): 32–42.
- "Reputations in Repeated Games," with Larry Samuelson, in *The Handbook of Game Theory*, volume 4, edited by Peyton Young and Shmuel Zamir, North Holland, 2014: 165–238.
- "Reputation Effects" in *The Encyclopedia of Complexity and System Science*, Robert A. Meyers (Editor-in-Chief); Springer, New York, 2009: 7651–7662. Reprinted in *Complex Social and Behavioral Systems and Game Theory*, Sotomayor, M., Castrillo, D.P., Castiglione, F. (Eds.), Springer, New York, forthcoming.

- "George J. Mailath on Hugo F. Sonnenschein" in *Foundations in Economic Theory: A Volume in Honor of Hugo F. Sonnenschein*, edited by Matthew O. Jackson and Andrew McLennan; Springer, Berlin, 2008: 447.
- "The Social Context of Economic Decisions," with Andrew Postlewaite, *Journal of the European Economic Association*, April-May 2003, **1** (2/3): 354–362.
- "Endogenous Interactions" with Larry Samuelson and Avner Shaked, in *The Evolution of Economic Diversity*, edited by Antonio Nicita and Ugo Pagano; Routledge, New York. 2001: 300–324.
- "Do People Play Nash Equilibrium? Lessons From Evolutionary Game Theory," *Journal of Economic Literature*, September 1998, **36** (3): 1347–1374. Reprinted in *Equilibrium*, vol. 3, edited by Donald Walker; Edward Elgar Pub, Northampton, MA, 2000.
- "Evolutionary Game Theory" in *The New Palgrave Dictionary of Economics and the Law*, edited by Peter Newman; The Macmillan Press, London, 1998, vol. 2: 84–88.
- "Incorporating Concern for Relative Wealth into Economic Models," with Harold L. Cole and Andrew Postlewaite, *Quarterly Review*, Federal Reserve Bank of Minneapolis, Summer 1995, **19** (3): 12–21.
- "Perpetual Randomness in Evolutionary Economics," *Economics Letters*, 1993, **42** (2-3): 291–299. (Text of an invited talk in the session Recent Advances in Evolutionary Economics at the American Economic Association meetings, Anaheim, CA, January 1993.)
- "Introduction: Symposium on Evolutionary Game Theory," *Journal of Economic Theory*, August 1992, **57** (2): 259–277.
- "Signaling Games" in *Recent Developments in Game Theory*, edited by John Creedy, Jeff Borland, and Jürgen Eichberger; Edward Elgar Pub, Hants, England, 1992: 65–93.
- Review of Al Roth (Editor), "Game Theoretic Models of Bargaining," Cambridge University Press, Cambridge,1985. Appeared in *Journal of Economic Literature*, June 1987: 745–747.

# **OLDER PAPERS NOT FULLY INCORPORATED INTO PUBLISHED WORK:**

- "Learning Under Diverse World Views: Model-Based Inference," with Larry Samuelson, PIER Working Paper 19-018 (September 30, 2019).
- "A Foundation for Markov Equilibria in Infinite Horizon Perfect Information Games," with V. Bhaskar and Stephen Morris, PIER Working Paper 12-043 (October 29, 2012).
- "Your Reputation is Who You're Not, Not Who You'd Like To Be," with Larry Samuelson, CARESS Working Paper #98-11 (August 7, 1998).
- "Repeated Games with Imperfect Private Monitoring: Notes on a Coordination Perspective," with Stephen Morris, CARESS Working Paper #98-07 (July 3, 1998).
- "A Reformulation of a Criticism of the Intuitive Criterion and Forward Induction," University of Pennsylvania (April 1988).

## HONORS AND PRIZES:

Irving B. Kravis Certificate for Distinction in Undergraduate Teaching, Department of Economics, University of Pennsylvania, 2020.

Fellow of the Game Theory Society (elected 2017).

ANU College of Business & Economics Alumni Hall of Fame, inducted 2015.

Fellow of the American Academy of Arts & Sciences (elected 2012).

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

M.A. (Honorary), Yale University, 2007.

2001 Koç University Prize for the Best Paper of the Year in Economic Design:

"Investment and Concern for Relative Position," with Harold L. Cole and Andrew Postlewaite, *Review of Economic Design*, 6 (2001), 241-261.

Fellow of the Econometric Society (elected 1995).

M.A. (Honorary), University of Pennsylvania, 1992.

## **GRANTS:**

National Science Foundation grants (with Andrew Postlewaite): 1998–2001, 2001–04, 2004–07, 2007–10, 2010–13, 2013–2016, 2016–2019, 2019–2022.

University of Pennsylvania Research Foundation, grants 1987, 1991, 1994.

National Science Foundation grant, 1989-91.

Fishman Davidson Center for the Study of the Service Sector, grants 1987, 1988.

University of Pennsylvania Faculty Grant and Award, summer stipend 1986.

Alfred P. Sloan Doctoral Dissertation Fellow, 1984-85.

## PROFESSIONAL ACTIVITIES (EDITORIAL):

Editor, Theoretical Economics, 2013-2017.

Co-Editor, Econometric Society Monograph Series, 2008–2013.

Founding Member of the Executive Board, *Theoretical Economics*, 2004–2009; the Econometric Society assumed responsibility for *Theoretical Economics* in 2010.

Associate Editor: *Econometrica*, 2001–2010; *Journal of Economic Theory*, 1991–2001; *International Economic Review*, 1997; *Theoretical Economics*, 2004–2013, 2017-2026.

Editorial Boards: *Games and Economic Behavior*, 1996–2014; *Economic Theory*, 1990–2004; *International Economic Review*, 1993–1996, 1997–2001; *The Berkeley Electronic Press Journal of Theoretical Economics*, 2000–2007.

Foreign Editor, Review of Economic Studies, 1995-2004.

Reviewer: Mathematical Reviews, 1990-1992.

#### PROFESSIONAL ACTIVITIES (CONFERENCES):

Program Co-Chair, North American Summer Meetings of the Econometric Society, Philadelphia, June 16-19, 2016.

Program Committee, North American Winter 1995, 2001, 2007, and 2012 Econometric Society Meetings.

Co-Organizer, 22<sup>nd</sup> International Conference on Game Theory at Stony Brook, July 11-15, 2011.

Co-Organizer of the Cowles 75th Anniversary Conference on Economic Theory: "Timing, Types, and Testing," Yale University, June 14-15, 2007.

Program Committee, 2002 Society for Economic Dynamics Annual Meetings.

Coordinator, 1999 *Review of Economic Studies* European Meetings ("the *Review* tour"). Local Arrangements Co-Chair, North American Summer 1991 Econometric Society Meetings, Philadelphia.

# PROFESSIONAL ACTIVITIES (OTHER):

Chair, Department of Economics Review, Monash University, 2022.

Editorial Advisor, Journal of Economic Theory, 2020-present.

Member, Nominating Committee, National Bureau of Economic Research, 2019–present.

University of Pennsylvania Representative, National Bureau of Economic Research Board of Directors. 2017–2027.

Member, American Academy of Arts and Sciences Class III, Section 2 (Economics) Membership Panel, 2020–2021.

Member, Econometric Society Officers and Council Nominating Committee, 2020.

Member, Council of the Econometric Society, 2013-2015, 2020-2023.

Member of the Advisory Board of the Book Series: World Scientific Lecture Notes in Economics and Policy, World Scientific Publishing, 2019–present.

Member, Executive and Supervisory Committee of CERGE-EI, Prague, Czech Republic, 2013–present.

Member, Econometric Society *Theoretical Economics* Co-Editor Search Committee, 2020.

Member, Econometric Society Open Access Committee, 2019.

External Reviewer, Mathematics/Economics Interdepartmental Program, for the UCLA Academic Senate Program Review, 2019.

Member, External Review Committee, University of Minnesota, Economics Department, 2017.

Member, Board of the Centre for Market Design, Australia, 2012–2014.

Member, External Review Committee, UC Berkeley, Economics Department, 2012.

Member, Econometric Society Governance Committee, 2012.

Member, Econometric Society *Theoretical Economics* Editor Search Committee, 2012.

Member, External Review Committee, Princeton Economics Department, 2010.

Member, External Review Committee, USC Economics Department, 2010.

Member, Economics Advisory Panel of the National Science Foundation, 2008–2009.

External Reviewer, UCLA Economics Department, 2008.

Member, Nominating Committee, American Economic Association, 2007.

Member, International Advisory Board, Scottish Institute for Research in Economics, 2006–2016.

Member, Council of the Game Theory Society, 2005–2011.

Member, Nominating Committee for Fellows of the Econometric Society, 2000.

**PH.D. DISSERTATION ADVISEES** (Penn Econ dept, unless otherwise noted, month of defense): Nawaaz Khalfan (April '23), Cuimin Ba (April '23), Changwha Lee (April '22), Ashwin Kambhampati (May '21), Nishant Ravi (April '19), Carlos Segura-Rodriguez (April '19), Mustafa Dogan (June '17), Xingtan Zhang (Managerial Science and Applied Economics, Wharton, March '17), Daniel Hauser (March '17), Ju Hu (April '16), Zehao

Hu (May '15), Ilwoo Hwang (April '14), Francesc Dilme (April '13), Fei Li (April '13), Chong Huang (April '12), Xi Weng (April '11), Antonio Penta (April '10), Kyungmin (Teddy) Kim (April '09), Eduardo Faingold (June '06), Alfredo Di Tillio (June '04), Braz Camargo (May '04), Sumantra Sen (Nov '02), Sergio Parreiras (July '01), Nicolas Sahuguet (May '01), Ichiro Obara (April '01), Johannes Hörner (April '00), Anna Ilyina (Oct '99), Matthias Kahl (June '97), Matti Suominen (June '97), Ayse Mumcu (May '97), Illtae Ahn (May '97), Robert Hunt (June '96), Alvaro Sandroni (May '96), Juuso Valimaki (Feb '96), Claudia Stachel (May '94), Chul Hun Lee (April '94), Dirk Bergemann (April '94), Henry Kahwaty (Oct '91), Fred Tiffany (Sept '88).

# **MAJOR ADMINISTRATIVE POSITIONS:**

# University of Pennsylvania:

2017/18: Econ. Dept.: Chair of the Department of Economics (head of department).

2016/17: Econ. Dept.: Chair of the Department of Economics (head of department).

2014/15: Econ. Dept.: Chair of the Graduate Group in Economics (DGS).

2013/14: Econ. Dept.: Chair of the Graduate Group in Economics (DGS).

2012/13: Econ. Dept.: Chair of the Graduate Group in Economics (DGS).

2008/09: Econ. Dept.: Chair of the Department of Economics (head of department).

2007/08: Econ. Dept.: Chair of the Department of Economics (head of department).

2005/06: Econ. Dept.: Chair of the Department of Economics (head of department).

2003/04: Econ. Dept.: Undergraduate Chair.

2002/03: Econ. Dept.: Undergraduate Chair.

2001/02: Econ. Dept.: Undergraduate Chair.

1999/2000: Econ. Dept.: Chair of the Graduate Group in Economics (DGS).

1998/99: Econ. Dept.: Chair of the Graduate Group in Economics (DGS).

1997/98: Econ. Dept.: Chair of the Graduate Group in Economics (DGS).

1996/97: Econ. Dept.: Acting Chair of the Graduate Group in Economics (DGS).

1994/95: Econ. Dept.: Chair of the Graduate Group in Economics (DGS).

1993/94: Econ. Dept.: Chair of the Graduate Group in Economics (DGS).

1992/93: Econ. Dept.: Chair of the Graduate Group in Economics (DGS).

Spring 1992: Econ. Dept.: Chair of the Graduate Group in Economics (DGS).

Fall 1991: Econ. Dept.: Acting Chair of the Graduate Group in Economics (Director of Graduate Studies).