## SUSAN CARLETON ATHEY

Stanford University Graduate School of Business 655 Knight Way Stanford, CA 94305 athey@stanford.edu

#### **PERSONAL**

Born November, 1970. U.S. Citizen.

### **EDUCATION**

# **Duke University**

Bachelor of Arts, 1991.

Majors in economics, mathematics, and computer science.

Magna Cum Laude. Phi Beta Kappa.

## **Stanford Graduate School of Business**

Ph.D., 1995

Dissertation: "Comparative Statics in Stochastic Problems with Applications."

Advisors: Paul Milgrom and John Roberts (co-chairs), Edward Lazear.

#### **CURRENT POSITIONS**

Stanford University Graduate School of Business

2014-present The Economics of Technology Professor

2013-2014 Professor of Economics

National Bureau of Economic Research

2001-present Research Associate. Co-organizer of Productivity and Information Technology/Digitization; Founding co-director of Market Design Working Group, 2008-2014.

#### PAST POSITIONS

Harvard University

2006-2012 Professor of Economics

Center for Advanced Study in the Behavioral Sciences

2004-2005 Fellow

Department of Economics, Stanford University

2001-2004 Associate Professor of Economics

2004-2006 Holbrook Working Professor of Economics and Professor (by courtesy) in the Graduate School of Business

Department of Economics, Massachusetts Institute of Technology

1999-2001 Castle Krob Career Development Associate Professor of Economics

1997-1999 Castle Krob Career Development Assistant Professor of Economics

1995-1997 Assistant Professor of Economics

Cowles Foundation for Economic Research, Yale University

1997-1998 Visiting Assistant Professor of Economics

Hoover Institution, Stanford University

2000-2001 National Fellow

National Bureau of Economic Research

1997-2001 Faculty Research Fellow

### **OTHER POSITIONS**

2008-present Visiting/Consulting Researcher, Microsoft Research, New England

2007-present Consultant to Microsoft Corporation.

2001-present Principal, Market Design, Inc.

April, 1999; October, 2000; February, 2001 Consultant, Research Department,

Minneapolis Federal Reserve Bank

May, 1998 Visiting Professor, I.D.E.I. Toulouse.

## **CURRENT PROFESSIONAL ACTIVITIES**

- Advisory Board, Toulouse School of Economics, 2010-15.
- Member, President's Committee for the National Medal of Science (Presidential Appointment, two consecutive terms), 2011-present.
- Membership Committee, National Academy of Science, 2013-present.
- Honors and Awards Committee, American Economics Association, 2013-present.
- Member, National Academies Board on Science, Technology and Economic Policy Innovation Policy Form, 2013-2015.
- Member, National Academies Committee on Science, Engineering, and Public Policy, 2013-present.
- Member, Nominating Committee for American Academy of Arts and Sciences, 2011-2012
- Co-organizer of Productivity and Information Technology/Digitization, National Bureau of Economics Research, 2009-present.

### PAST PROFESSIONAL ACTIVITIES

- o NBER, Founding co-director of Market Design Working Group, 2008-2014.
- o Cambridge Economics Economics and Computational Day, co-founder, 2011.
- o Council, Game Theory Society, 2009-2012. (elected position).
- o Associate Editor, *Theoretical Economics*, 2005-2011.
- o Council, Econometric Society, 2007-2010. (elected position)
- o Executive Committee, American Economic Association, 2008-2010. (elected position)
- Advisory Committee on Editorial Appointments, American Economics Association, 2011.
- o Co-Editor, American Economic Journals: Microeconomics, 2007-2008.
- Associate Editor, Econometrica, 2006-2007.
- o Associate Editor, Quarterly Journal of Economics, 2001-2007.
- o Editorial Board, Not a Journal Economics, 2001-2008.
- Fellows Nominating Committee, Econometric Society, 2006.

- o Elaine Bennett Research Prize Committee (AEA/CSWEP), 2002, 2004, 2006 (Chair).
- o Chair, Program Committee, Winter Meetings of the Econometric Society, 2006.
- National Science Foundation Economics Panel, 2004-2006.
- o Co-director, Market Design Program, Stanford Institute for Economic Policy Research, 2004-2006.
  - o Mentor, CeMent Mentoring Workshop, AEA/CSWEP, 2006.
- Young Faculty Nominating Committee, Center for Advanced Study in the Behavioral Sciences.
- Associate Editor, *American Economic Review*, 2002-2005.
- Associate Editor, RAND Journal of Economics, 2002-2004.
- Foreign Editor, Review of Economic Studies, 2001-2004.
- American Economic Association Nominating Committee, 2003.
- Stanford University Fellow, 2002-2004.
- Co-editor, Journal of Economics and Management Strategy, 1997-2001.
- Program Committee, Summer Meetings of the Econometric Society, 1997 and 1998; 8th World Congress of the Econometric Society, 2000; Winter Meetings of the Econometric Society, 2001 and 2005.

### **HONORS**

- Knight Fellows Favorite Professor Award, Stanford University, 2014.
- 2013 Best Paper Award, American Economic Journal: Microeconomics.
- Fellow, Society for the Advancement of Economic Theory, 2013.
- Member, National Academy of Science, elected 2012.
- Honorary degree, Duke University, 2009.
- Fellow, American Academy of Arts and Sciences, elected 2008.
- John Bates Clark Medal, 2007.
- Fellow, Econometric Society, elected 2004.
- Guggenhime Faculty Scholar, Stanford University, 2004-2006.
- Elaine Bennett Research Award, 2001.
- Sloan Foundation Research Fellow, 2000.
- Undergraduate Economics Association Teaching Award, 1995-1996.
- Review of Economic Studies Tour, 1995.
- Stanford University Lieberman Fellow, 1994-1995.
- State Farm Dissertation Award in Business, 1994.
- National Science Foundation Graduate Fellowship, 1991-1994.
- Jaedicke Scholar, Stanford Graduate School of Business, 1992-1993.
- Mary Love Collins Scholarship, Chi Omega Foundation, 1991-1992.
- Duke University Alice Baldwin Memorial Scholarship, 1990-1991.

### **DISTINGUISHED LECTURES**

- o Manchot Lecture, Bonn, 2016
- o WZB Distinguished Lecture in Social Sciences, 2016

- o Henry George Lecture, University of Scranton, 2015
- o Milliman Lecture, University of Washington, 2015
- o George Staller Lecture, Cornell, 2015
- o Fathauer Lecture, University of Arizona, 2015
- o The GSB Salon, Stanford-Bejing Lecture, 2015
- o Woytinksy Lecture, University of Michigan, 2014.
- o Leigh Lecture, Washington State University, 2014.
- o Central Planning Bureau Lecture, Netherlands, 2014.
- Keynote, DIMACS Workshop on Economic Aspects of Information Sharing,
  2013
- o Association Lecture, Southern Economics Association, 2013.
- Keynote, Searle Antitrust Conference, 2012.
- o Sir Richard Stone Annual Lecture, Cambridge University, 2012.
- o Dunaway Lecture, Michigan State University, 2012.
- o Keynote, 2011 MIT Center for Digital Business Annual Conference
- Keynote address, 2011 Southern California Symposium on Network Economics and Game Theory.
- Keynote address, International Joint Conferences on Artificial Intelligence, Barcelona, July 2011.
- o Fisher Schultz Lecture, Econometric Society, 2011.
- o Plenary Lecture for Society of Economic Dynamics, 2010.
- Plenary Lecture for joint meeting of Electronic Commerce and Theoretical Aspects of Rationality and Knowledge, 2009.
- Society of Economic Design Plenary Lecture, 2008.
- o Frank Hahn Lecture, Royal Economic Society Conference, 2008.
- o John F. Nash, Jr., Lecture, Carroll Round, Georgetown, 2008.
- o Schultz Lecture, University of Chicago, 2007.
- o Toulouse Lectures in Economics, 2007.
- o Invited Speaker, 9th World Congress of the Econometric Society.
- o Johnson Distinguished Lecturer in Economics, Duke University, 2004.

#### **GRANTS AND RESEARCH AWARDS**

- "Private Information and Dynamic Games," NSF Grant No. SES-0351500.
- "Private Information in Auctions, Pricing Games, and Ongoing Relationships,"
  NSF CAREER Award No. SES-9983820.
- o "Bidding Behavior in U.S. Forest Service Timber Auctions," MIT Provost's Fund for Humanities, Arts, and Social Sciences Research Award, 1997.
- o "Empirical Tests for Complementarities: A Structural Approach," MIT Sloan School of Management, Creative Research Award, 1996 (with Scott Stern).
- "Comparative Statics: Theory and an Empirical Framework for Testing Predictions," NSF Grant No. SBR-9631760.
- o "Product and Process Innovation," William Miller Fund, Stanford GSB.

### **JOURNAL ARTICLES**

- 1. "A Measure of Robustness to Misspecification" (with Guido Imbens), *American Economic Review*, May 2015, 105 (5), 476-480.
- 2. "Dynamics of Open Source Movements," (with Glenn Ellison), *Journal of Economics and Management Strategy*, 2014, 23 (2), 294-316.
- 3. "An Efficient Dynamic Mechanism," (with Ilya Segal), *Econometrica*, 2013, 81 (6), 2463-2485.
- 4. "Subsidies and Set-Asides in Auctions," (with Jonathan Levin and Dominic Coey). *American Economic Journal: Microeconomics*, 2013, 5 (1), 1-27. Winner: 2013 Best Paper Award, *American Economic Journal: Microeconomics*.
- 5. "Position Auctions with Consumer Search," (with Glenn Ellison). *Quarterly Journal of Economics*, 2011, 126(3), 1213-1270.
- 6. "Comparing Open and Sealed Bid Auctions: Theory and Evidence from Timber Auctions," (with Jonathan Levin and Enrique Seira). *Quarterly Journal of Economics*, 2011, 126(1), 207-257.
- 7. "The Impact of Targeting Technology on Advertising Markets and Media Competition," with Joshua Gans, *American Economic Review*, May 2010.
- 8. "Skewed Bidding in Pay Per Action Models of Online Advertising," with Nikhil Agarwal and David Yang. *American Economic Review*, May 2009.
- 9. "Collusion with Persistent Cost Shocks," (with Kyle Bagwell). *Econometrica*, May 2008, 76 (3), 493-540.
- 10. "Designing Efficient Mechanisms for Dynamic Bilateral Trading Games," (with Ilya Segal), *American Economic Review*, May 2008.
- 11. "Efficiency in Repeated Trade with Hidden Valuations," (with David Miller). *Theoretical Economics*, 2007, 2 (3), 299-354.
- 12. "Discrete Choice Models with Multiple Unobserved Choice Characteristics," (with Guido Imbens). *International Economic Review*, 2007, 48 (4), 1159-1192.
- 13. "What Does Performance in Graduate School Predict? Graduate Economics Education and Student Outcomes" (with Larry Katz, Alan Krueger, James Poterba, and Steve Levitt), *American Economic Review*, May 2007.
- 14. "Identification and Inference in Nonlinear Difference-In-Difference Models," (with Guido Imbens). *Econometrica* 74 (2), March, 2006, 431-498.
- 15. "The Optimal Degree of Monetary Policy Discretion," (with Andrew Atkeson and Patrick Kehoe), *Econometrica* 73 (5), September, 2005, 1431-1476.
- 16. "Collusion and Price Rigidity," (with Kyle Bagwell and Chris Sanchirico). *Review of Economic Studies* 71 (2), April 2004, 317-349.
- 17. "Identification in Standard Auction Models," (with Philip Haile), *Econometrica*, 70 (6), *November* 2002, pp. 2107-2140.
- 18. "The Impact of Information Technology on Emergency Health Care Outcomes," (with Scott Stern), *RAND Journal of Economics*, 33 (3), Autumn 2002, pp. 399-432.
- 19. "Monotone Comparative Statics Under Uncertainty," *Quarterly Journal of Economics*, February 2002, CXVII (1): 187-223.

- 20. "Optimal Collusion with Private Information," (with Kyle Bagwell), *RAND Journal of Economics*, Autumn 2001, 32 (3): 428-465.
- 21. "Single Crossing Properties and the Existence of Pure Strategy Equilibria in Games of Incomplete Information," *Econometrica* 69 (4), July, 2001: 861-890.
- 22. "Organizational Design: Decision Rights and Incentive Contracts," (with John Roberts), *American Economic Review*, May 2001.
- 23. "Information and Competition in U.S. Forest Service Timber Auctions," (with Jonathan Levin), *Journal of Political Economy*, 109 (2), April 2001. Reprinted in: Empirical Industrial Organization, Paul Joskow and Michael Waterson, ed., Critical Ideas in Economics, Edward Elgar, forthcoming 2004.
- 24. "Investment and Market Dominance," (with Armin Schmutzler), *RAND Journal of Economics* 32 (1), Spring 2001: 1-26.
- 25. "Mentoring and Diversity," (with Chris Avery and Peter Zemsky), *American Economic Review* 90 (4) September 2000: 765-786.
- 26. "Information Technology and Training in Emergency Call Centers." (with Scott Stern). *Proceedings of the Fifty-First Annual Meetings* (New York, Jan 3-5, 1999). Madison, WI: Industrial Relations Research Association, pp. 53-60.
- 27. "Product and Process Flexibility in an Innovative Environment, "(with Armin Schmutzler), *RAND Journal of Economics*, 26 (4) Winter1995: 557-574.

### **BOOKS/SURVEYS/CONFERENCE VOLUMES**

- 1. "The Nature and Incidence of Software Piracy: Evidence from Windows" (with Scott Stern), forthcoming, *The Economics of Digitization*, University of Chicago Press.
- 2. *Dynamic Games and Contracts with Hidden Information*, In Progress. Toulouse Lectures in Economics 2007, Princeton University Press.
- 3. "Empirical Models of Auctions," in *Advances in Economics and Econometrics: Theory and Applications, Ninth World Congress, Volume II.* Richard Blundell, Whitney K. Newey, Torsten Persson, eds., Cambridge University Press, 2007.
- 4. "Nonparametric Approaches to Auctions," forthcoming, *Handbook of Econometrics*, Volume 6.
- 5. Robust Comparative Statics (with Paul Milgrom and John Roberts), research monograph (draft form).
- 6. "Adoption and Impact of Advanced Technologies in Emergency Response Systems," (with Scott Stern), in *The Changing Hospital Industry: Comparing Not-for-Profit and For-Profit Institutions*, David Cutler, ed. University of Chicago Press, 2000, pp. 113-155.

#### WORKING PAPERS/UNDER REVIEW

- 1. "Estimation and Inference of Heterogeneous Treatment Effects using Random Forests" (with Stefan Wager), Working Paper, 2015. <a href="http://arxiv.org/abs/1510.04342">http://arxiv.org/abs/1510.04342</a>
- 2. "Exact P-values for Network Interference" (with Dean Eckles and Guido Imbens), Working Paper, 2015. <a href="http://arxiv.org/abs/1506.02084">http://arxiv.org/abs/1506.02084</a>
- 3. "Recursive Partitioning for Heterogeneous Causal Effects" (with Guido Imbens), Working paper, 2015, <a href="http://arxiv.org/abs/1504.01132">http://arxiv.org/abs/1504.01132</a>.

- 4. "Finite Population Standard Errors" (with Guido Imbens), Working paper, 2014, under review.
- 5. "A Structural Model of Sponsored Search Advertising Markets" (with Denis Nekipelov). Working paper, 2012. Under review.
- 6. "The Impact of the Internet on Advertising Markets for News Media" (with Emilio Calvano and Joshua Gans). Working paper, 2012. Under review.
- 7. "The Impact of News Aggregators on Internet News Consumption: The Case of Localization" (with Markus Mobius). Working paper, 2012.
- 8. "Peaches, Lemons, and Cookies: Designing Auction Markets with Dispersed Information." With Moshe Babaioff, Michael Grubb and Ittai Abraham. Working paper, 2012.
- 9. "Exchange Rate Fluctuations, Consumer Demand, and Advertising: the Case of Internet Search" (with Maya Cohen Meidan). Working paper, 2011.
- 10. "A Theory of Group Formation and Social Hierarchy," (with Saumitra Jha and Emilio Calvano). Working Paper, 2010.
- 11. "Characterizing Properties of Stochastic Objective Functions," MIT Working Paper 96-1R. Revise & Resubmit, B.E. Journals in Theoretical Economics.
- 12. "Investment and Information Value for a Risk-Averse Firm," MIT Working Paper No. 00-30. Revise & Resubmit, B.E. Journals in Theoretical Economics.
- 13. "The Value of Information in Monotone Decision Problems" (with Jonathan Levin), MIT Working Paper No. 98-24, November 1998.
- 14. "An Empirical Framework for Testing Theories about Complementarities in Organizational Design," (with Scott Stern). NBER Working Paper 6600, February 1998. *Revise & Resubmit, Management Science*.
- 15. "The Allocation of Decisions in Organizations," (with Joshua Gans and Scott Stern), Mimeo, MIT, 1996.

## **WORK IN PROGRESS**

- 1. "The Econometrics of Randomized Experiments," with Guido Imbens, in preparation for *Handbook of Development Economics*.
- 2. "Bitcoin Pricing, Adoption, and Usage: Theory and Evidence," with Ivo Parashkevov, Vishnu Sarukkai, Jing Xia.
- 3. "Social Media and News Consumption" (with Markus Mobius and Jeno Pal), Working paper, 2013.
- 4. "Internet Information Gathering and Stock Returns: Evidence from Ticker Lookups" (with Stefano Della Vigna), Working paper, 2013.
- 5. "Consumer Tracking and Efficient Matching in Online Advertising Markets (with Emilio Calvano and Joshua Gans). In progress.
- 6. "Dynamic Auctions with Persistent Private Information," (with Kyle Bagwell).
- 7. "Authority and Incentives," (with John Roberts).

#### **TEACHING**

- MBA: Economics of Internet Search, Platform Competition in Digital Markets, Financial Technology
- Graduate: Economics of Information Technology, Market Design, Advanced Topics in Game Theory, Industrial Organization, Contract Theory, Microeconomic Theory.
- O Undergraduate: Market Design, Industrial Organization, Intermediate Applied Microeconomics.

## **NON-ACADEMIC HONORS**

- World Innovation Summit on Entrepreneurship and Innovation's World's Most Innovative People Award, 2012.
- o World Economic Forum Young Global Leader, selected 2008.
- o Fast Company's 100 Most Creative People in Business
- o Diversity MBA's Top 100 under 50 Diverse Executives
- o Kilby Award Foundation's Young Innovator Award, 1998.