## **Curriculum Vitae for Sosale Shankara Sastry**

S. Shankar Sastry

Thomas M. Siebel Professor of Computer Science,

Director, Richard C. Blum Center for Developing Economies,

Faculty Director, FHL Vive Center for Enhanced Reality,

Co-Director, C3 Digital Transformation Institute.

Professor of Elec. Eng and Comp. Sci,, Bio-Eng., and Mech. Eng.,

Dean and Roy W. Carlson Professor of Engineering (2007-18) Emeritus,

220 D Blum Hall

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#### Education

B.Tech. (1977), Indian Institute of Technology, Bombay, India.

M.S. EECS (1979), University of California, Berkeley.

M.A. Mathematics (1980), University of California, Berkeley.

Ph.D. EECS (1981), University of California, Berkeley.

#### **Experience in Higher Education**

- Co-Director, C3 Digital Transformation Institute, March 2020-present
- Faculty Director, FHL Vive Center for Enhanced Reality, 2018-present
- Dean Of Engineering, 2007-2018.
- Director, Richard C. Blum Center for Developing Economies, 2007- present.
- Professor of Mechanical Engineering, 2007- present.
- Director and PI of NSF Science and Technology Center "TRUST: Team for Research in Ubiquitous Security Technologies", 2005-2015.
- Director (CITRIS), 2005-2007
- Nippon Electronics Corporation (NEC) Distinguished Professorship in the College of Engineering and the Walter A. Haas School of Business, 2002- present.
- Chairman, Department of Electrical Engineering and Computer Sciences, U. C. Berkeley, 2001-2004.
- Professor of Bioengineering, 1999- present.
- Director, Electronics Research Laboratory, U. C. Berkeley, 1996-1999.
- Professore A Contratto, Universita di Pisa, Summer 1995, Summer 1998.
- Gordon McKay Professor of EECS (tenured appointment), Harvard University, 1994.
- Visiting Vinton Hayes Professor of EECS, MIT, Fall 1992.
- Professore A Contratto, Universita di Roma. "La Sapienza", Summer 1990, Summer 1991.
- Professor, University of California, Berkeley, 1988 present.
- Associate Professor, University of California, Berkeley, 1984 -1988.
- Visiting Fellow, Australian National University, Canberra, Australia, Summer 1985.

- Assistant Professor, University of California, Berkeley, 1983 1984.
- Assistant Professor, Massachusetts Institute of Technology, Cambridge, 1980 1982.

#### **Experience in Government**

- Member, NSF Engineering Division Advisory Board, 2015-2017
- Nominated as Member 2008, Naval Research Advisory Council, NRAC (not accepted)
- Member, 2008-09, Defense Sciences Board (DSB),
- Member, President's Council on Science and Technology--Technical Advisory Group (PCAST-TAG) on Networking and Information Technology (OSTP nomination) 2006- 2007.
- Member, AFRL Commander's Command and Control Software Windtunnel Study, 2004-2006.
- Member, DoD TARA Review Board for Information Technology, 2004-2006.
- Member, DIA-NRC Panel on Emerging Threats and Technologies, from September 2004- present.
- Member DARPA Information Sciences and Technology Study Group, 2003-2006.
- Member, Air Force Science Advisory Board AF-SAB (Sec AF nomination with Presidential concurrence), October 2002-2006.
- Director, Information Technology Office, DARPA, (DARPA director nomination. with Sec Def. concurrence) Nov. 1999-Feb 2001.

#### **Professional Experience**

- Consultant to United Technologies, Boeing, Lockheed Martin, Finmeccanica, Ford, GM (India Labs), Honeywell. Past consulting includes IBM, HP, GE, Intuitive Surgical, Guidant, Telecom Italia, and numerous venture firms including KPCB, USVP, APAX, etc.
- Directeur Recherche, Poste Rouge, Centre Nationale Recherche Scientifique (CNRS), Toulouse, France, Summer 1991.
- Graduate Student Aide, Honeywell Systems and Control Inc., Minneapolis, 1978.
- Research Engineer, Bharat Electronics, Bangalore, India, Summer 1976.
- Research Engineer, Indian Telephone Industries, Bangalore, India, Summer 1975.

#### **Board Memberships**

- Scientific Advisory Board to Finmeccanica, SPROUT, 2007-2011.
- Scientific Advisory Board to Scientific Systems Inc. 2006-2007.
- Member, Scientific Advisory Board for Singapore National Research Foundation, 2009-2012.
- Member, Science and Technology Advisory Board for the Thai Prime Minister 2009-2012.
- Member, Board of Visitors, ECE Departments, CMU and Cornell, 2006-2008.

- Board of Trustees, International Computer Science Institute, Berkeley, October 2003-09, Chairman of the Board, 2004-09.
- Member, Army Research Laboratories and Army Research Office Review Board, 2002, 2005.
- Member, Committee of Visitors, National Science Foundation, Engineering, 2003.
- NSF Engineering Directorate, ECS Division, September 2002.
- Board of Advisors, Swedish Ministry of Defense, 2002-2003.
- Board of Directors, Berkeley Intel Lablet, July 2002-July 2003.
- Board Member, Federation of American Scientists, DC, July 2002-July 2008.
- Board Member, CrossBow, Inc. Milpitas, CA 2007-2011.
- Stanford School of Engineering Advisory Board, 2007-2016.
- Board Member, C3.ai, Redwood City, CA 2009-present
- Scientific Advisory Board, Interwest Partners, Menlo Park, CA 2011-2019
- Board Member, HCL Technologies, Inc., New Delhi, India 2012-present
- Academic Software Advisory Panel (ASAP), GE, San Ramon, CA 2011-2013.
- Scientific Advisory Board of UN Secretary General, 2014-Dec 2016.
- Chairman, Scientific Advisory Board, Eriksholm Technologies, division of Oticon, LLC, Denmark, 2014-2019.
- Technical Advisory Board, Lockheed Martin Company, 2015-2017.
- World Economic Forum, Global Development Council Member, 2016-2018.
- Board Member, Lexmark Corporation, Lexington, Kentucky, 2016-present.

#### **Professional Activities**

Past Associate Editor of:

- Proceedings of the IEEE
- IMA Journal of Mathematical Control and Information
- International Journal of Adaptive and Optimal Control
- Systems and Control Letters
- Journal of Mathematical Systems, Estimation and Control
- IEEE Transactions on Circuits and Systems
- IEEE Transactions on Automatic Control
- IEEE Control Magazine
- Large Scale Systems

#### **Honors and Awards**

- The Berkeley Citation, May 2018
- Laurea Dottorato (Ph.D.) Honoris Causa in Telecommunications Engineering, Politecnico di Torino, March 2018
- Friend of Vanderbilt University, Dean's Award, Vanderbilt University, April 2016
- Distinguished Alumnus, International House, UC Berkeley, May 2016
- Fellow, International Federation of Automatic Control (IFAC), 2016.
- Ph. D. Honoris Causa, University of Waterloo, June 2016 (also commencement speaker)
- Chang Lin Tien Educational Leadership Award, 2010

- Ph. D. Honoris Causa, Royal Institute of Technology, Stockholm, 2007
- Ragazzini Award for distinguished career in Control education, American Control Council, 2005.
- American Academy of Arts and Sciences, elected 2004.
- Nippon Electronics Corporation (NEC) Distinguished Professorship in the College of Engineering and the Walter A. Haas School of Business, 2002.
- National Academy of Engineering, elected 2001.
- David Marr Best Paper Prize, International Conference in Computer Vision, 1999.
- Distinguished Alumnus Award, IIT Bombay, 1999.
- Fellow, IEEE, 1994.
- M.A. (Letters), honoris causa, Harvard University, 1994.
- Donald P. Eckman Award of the American Control Council, 1990 for the best control engineer under the age of 35 awarded by IEEE, ASME, AIAA, AIChE, SPIE, Optical Society Of America.
- NSF Presidential Young Investigator Award, 1985.
- IBM Faculty Development Grant, 1983.
- IEEE Student Best Paper Award, 1977.
- President of India Gold Medal, 1977.

List of M.S. Students (terminal M.S., but no Ph.D.)

Name	Graduation Date	<b>Current Location</b>
James Krause (MIT)	1982	Honeywell, Minneapolis, MN
Lee Stone (Biophysicsb)	1983	NASA Ames, Ames, CA
Paul Homburger	1983	SRI, Palo Alto, CA
Mel Badgett	1984	Integrated Systems, Santa Clara, CA
Gary Demuth	1985	AFWAL, Albuquerque, NM
Curtis Elia	1986	Integrated Systems, Santa Clara, CA
Pietro Perona	1986	Caltech, Pasadena, CA
Paul Jacobs	1986	Qualcomm, San Diego, CA
Tim Hahn	1987	Bellcore, Holmdel, NJ
Shobana Venkatraman	1988	Teknekron Comm, Berkeley, CA
Christian Sallaberger	1989	University of Toronto, ON
Greg Heinzinger	1989	Qualcomm, San Diego, CA
Cesar Alvarez	1990	Microsoft, Seattle, WA
Karin Hollerbach (Bioengg)	1991	LBNL, Berkeley, CA
Shawn Wayen Hsu	2000	Unknown (but in Si Valley)
Shahid Rashid	2000	ERIDE, San Francisco, CA
Courtney Sherman Sharp	2000	Moteiv, Inc. Berkeley. CA
Nils Wemhoener (Mech E.)	2000	RWTH-AC, Aachen, Germany
Arnab Nilim (CE)	2001	Goldman Sachs, New York, NY
Mario Micheli	2001	Brown University, Providence, RI
Cedric Sek-Kong Ma	2002	Northrup Grumman, El Segundo, CA
Judy Liebman	2003	Lawrence Livermore Laboratories, CA
Adonis Antoniades	2003	NICTA, Sydney, Australia
Jessica Pannequin	2007	NASA Ames, Mountain View, CA

# List of Doctoral Students If not in EECS, major is explicitly noted

Name	Graduation Date	<b>Current Location</b>
Jean Jacques Slotine (Aero)	1983	ME, M. I. T., Cambridge, MA
Ramon Silva	1984	Teknekron Comm $\rightarrow$ assorted companies in Venezuela
Stephen Boyd	1984	EE, Stanford University, Palo Alto, CA (joint with Chua and Desoer)
Brad Paden	1985	ME, UC Santa Barbara, CA
Marc Bodson	1986	ECE, CMU→ ECE, University of Utah, UT
Efithimios Kappos	1986	Mathematics, University of Thessaloniki, Greece
Li-Chen Fu	1987	EE&CS, National Taiwan University, Taiwan
Er-Wai Bai	1987	ECE, University of Iowa, Iowa City, IA
Andy Packard (ME)	1988	ME, UC Berkeley, CA
Jeff Mason (ME)	1988	IBM Rochester, MN
Ping Hsu	1988	ECE, San Jose State University, CA
Saman Behtash	1988	Assorted Start Ups
John Hauser	1989	ECE, University of Colorado, CO
Arlene Cole	1989	EE, Morgan State University, Baltimore, MD
Zexiang Li	1989	EE, Hong Kong Univ. of Sci and Tech, Hong Kong
Niklas Nordstrom	1990	EE, Royal Inst of Tech, Stockholm, Sweden
D.C. Deno (Bioengg)	1991	Intermedics, Houston, Texas (joint with Keller)
Richard Murray	1991	Mech E, EECS Caltech, Pasadena, CA
A. K. Pradeep (ME)	1992	Neurofocus, Berkeley, CA (sold to Nielsen), Sensable Technologies, Berkeley, CA
Andrew Teel	1992	ECE, University of California, Santa Barbara
Raja Kadiyala	1992	CH2M Hill, San Francisco, CA
Kris Pister	1992	EECS, UC Berkeley, CA (joint with Fearing)
Linda Bushnell	1994	ECE, University of Washington, WA
Gregory Walsh	1994	EE, University of Maryland, MD
Dawn Tilbury	1994	ME, University of Michigan, MI
Datta Godbole	1994	VP&CTO, Honeywell Tech Center, MN
John Lygeros	1996	ECE, ETH, Zurich

Steve Burgett	1996	Yasukawa Motors, San Francisco, CA
Antonia Lindsey	1997	NASA Ames, Mountain View, CA
Charles Coleman	1997	Aero Astro, MIT. Cambridge, MA
Jeffrey Wendlandt (ME)	1997	Math Works, Worcester, MA
Lara Crawford (Biophysics)	1998	PARC, Palo Alto, CA
Claire Tomlin	1998	EECS University of California, Berkeley
George Pappas	1998	ECE, University of Pennsylvania, Philadelphia, PA
Yi Ma	2000	CS and Assoc Dean, Shangai Tech, Shanghai, China
Murat Cenk Cavusoglu	2000	EE and BioE, Case Western , Cleveland, OH
Tak Kuen John Koo	2000	ECE, University of Hong Kong, Hong Kong
Hyunchul David Shim (ME)	2000	ME, Korean Advanced Institute for Science and Technology, KAIST, Seoul, Korea.
Hyoun Jin Kim (ME)	2001	Aero, Seoul National University, Seoul, Korea
Rene Vidal	2003	Biomed, CS, ECE, Johns Hopkins University, Baltimore, MD
Jianghai Hu	2003	ECE, Purdue University, West Lafayette, IN
Omid Shakernia	2003	Northrop Grumann, Los Angeles, CA
Luca Schenato	2003	ECE, Universita di Padova, Padova, Italy
Jun Zhang	2003	EE, Jiaotong University, Shanghai, China
Xinyan Deng (ME)	2004	ME, Purdue University, West Lafayette, IN
Bruno Sinopoli	2005	ECE, Carnegie Mellon University, Pittsburgh, PA
Hoam Chung (ME)	2005	ME, Melbourne University, Australia.
Wei Chung Wu	2006	Berkeley (lost track)
Aaron Ames	2006	ECE and ME, Georgia Tech
Shawn Schaffert	2006	Moteiv, Inc., Berkeley, CA (lost track)
Songhwai Oh	2006	ECE, Seoul National University, Korea
Alessandro Abate	2007	Computer Science, University of Oxford, UK
Tanya Roosta	2008	Federal Reserve Bank, San Francisco, CA
Parvez Ahammad	2008	Howard Hughes Medical Institute Janelia Farms, Virginia
Phoebus Chen	2008	C3 IoT, Redwood City, CA
Edgar Lobaton	2009	ECE, NC State University, Raleigh, NC
Marci Meingast	2009	Lawrence Livermore National Labs, Livermore, CA

Todd Templeton	2009	Google, Pittsburgh, PA
Milos Drezgic	2010	University of California, Berkeley
Saurabh Amin (CEE)	2011	Civil, EECS, MIT (joint with Bayen)
Xia (Bonnie) Zhu	2011	(lost contact)
Humberto Gonzalez	2012	Systems Engineering, Washington University (St. Louis)
Nikhil Naikal	2014	Flyby Media Inc, NYC (start up)
Sam Burden	2014	University of Washington, Seattle
Lillian Ratliff	2015	University of Washington, Seattle
Dorsa Sadigh	2017	Stanford University, Palo Alto, CA
Roy Dong	2017	University of Illinois, Urbana Champaign, IL
Lam, Chi-Peng	2017	Google Research, Mountain View, CA
Fernandez- Fisac, Jaime	2019	Princeton University, NJ
Scobee, Dexter	2019	Google Research, Palo Alto, CA
Menke, Joseph	2020	Apple Research, Cupertino, CA

# **List of Post Doctoral Scholars**

Name	Year of Visit	Affiliation
Robyn Owens	1986	University of Western Australia
B. Zavidovique	1986	ETCA, Paris
Helene Chochon	1987	ECE Paris
A. Oliveira	1988	COPPE, Rio de Janeiro
I. Mazon	1990	LAAS, Toulouse, France
D. Luzeaux	1991	Ecole Polytechnique, U. Paris, France
J. Kosecka	1996-99	George Mason University, DC
C. Mason	1997	NASA Ames
S. Sekhavat	1997	INRIA-Rhone Alpes → lost touch
F. Hoffmann	1997-99	University of Kiel, Germany
J. Hespanha	1998	University of California, Santa Barbara
M. Prandini	1998	Politecnico di Milano, Italy
K. Johansson	1998-2000	Royal Institute of Technology, Sweden
J. Lygeros	1998	ETH, Zurich
S. Simic (Math)	1999- 2004	San Jose State University, San Jose, CA
Ekaterina Lemch	2000	McGill University, Canada
John Takkeun Koo	2000-2003	ASTRI, Hong Kong, HK.
Murat Cavusoglu	2000-2002	Case Western University, Cleveland
Hyoun Jin Kim	2001-2004	Seoul National University, Seoul, Korea
Ian Mitchell	2002-2003	University of British Columbia, Vancouver.
Christopher Geyer	2002-2005	I-Robot, Cambridge, MA
Massimo Franceschetti	2002-2004	University of California, San Diego, CA
Jonathan Sprinkle	2003-2007	Univ of Arizona, AZ $\rightarrow$ National Science Foundation
Michael Eklund	2003-2006	Ontario Institute of Technology, Canada
Bruno Sinopoli	2005-2006	CMU, Pittsburgh, PA
Hoam Chung	2006-2009	University of Melbourne, Australia
Allen Yang	2006-2015	Grafty Inc., Fremont, CA, (Start up) and Executive director, FHL Vive Center for Augmented Reality.
Vincent Duindam	2006-2008	Intuitive Surgical Inc., Palo Alto

Alvaro Cardenas	2006-2009	University of Texas, Dallas, TX
Annarita Gianni	2007-2010	Sandia National Labs
Songhwai Oh	2006-2007	Seoul National University, Korea
Galina Schwartz	2010-2017	Berkeley (Research Scientist)
Dheeraj Singaraju	2010-2012	Google Research, Mountain View
Henrik Ohlsson	2011-2014	C3.ai LLC., Redwood City
Ehsan Elhamifar	2012-2015	Northeastern University
Aaron Laszka	2015- 2016	Vanderbilt University
Roy Dong	2017-2018	University of California, Berkeley

### **Books Published**

Shankar Sastry has authored or co-authored 5 textbooks:

- 1. "Generalized Principal Component Analysis", co-authored with R. Vidal and Y. Ma, Springer Verlag, 2016.
- 2. "An Invitation to 3D Vision: From Images to Models" co-authored with Y. Ma, S. Soatto, and J. Kosecka, Springer Verlag, 2003,
- 3. Nonlinear Systems: Analysis, Stability and Control, Springer-Verlag in 1999,
- 4. A Mathematical Introduction to Robotic Manipulation (with R. Murray and Z. Li, CRC Press, 1994, and
- 5. Adaptive Control: Stability, Convergence and Robustness (with M. Bodson, Prentice Hall, 1989, now out of print but available for free download at <a href="http://www.ece.utah.edu/~bodson/acscr/index.html">http://www.ece.utah.edu/~bodson/acscr/index.html</a>),

#### He has co-edited 5 other books

- 1. *Hybrid Control II* (with P. Antsaklis, A. Nerode, and W. Kohn), Springer Lecture Notes in Computer Science, LNCS, 1995.
- 2. Hybrid Control IV (with P. Antsaklis, A. Nerode, and W. Kohn), Springer Lecture Notes in Computer Science, LNCS, 1997.
- 3. Hybrid Control V (with P. Antsaklis, A. Nerode, and W. Kohn), Springer Lecture Notes in Computer Science, LNCS, 1999.
- 4, *Hybrid Systems: Computation and Control* (with T. Henzinger, Springer-Verlag Lecture Notes in Computer Science, 1998),
- 5. Essays in Mathematical Robotics (with Baillieul and Sussmann, Springer-Verlag IMA Series), 1999.

He has one textbook currently in progress "Hybrid Control Systems" with J. Lygeros and C. Tomlin, under contract with Springer Verlag. He is also working on a monograph entitled "Digital Transformation of Societal Systems", with L. Ratliff and R. Dong.

#### **List of Publications**

- 1. Afolabi, Oladapo and Yang, Allen and Sastry, Shankar S, *DeepSDF x Sim (3):* Extending DeepSDF for automatic 3D shape retrieval and similarity transform estimation, arXiv:2004.09048, 2020.
- 2. 2. Dexter R.R. Scobee and S. Shankar Sastry, Maximum Likelihood Constraint Inference for Inverse Reinforcement Learning, *Proceedings of the International Conference on Learning Representations (ICLR)*, 2020.
- 3. <u>3.</u> Andreea Bobu, Dexter R.R. Scobee, Jaime F. Fisac, S. Shankar Sastry, and Anca D. Dragan, LESS is More: Rethinking Probabilistic Models of Human Behavior, *ACM/IEEE International Conference on Human-Robot Interaction (HRI)*, 2020.
- 4. Eric Mazumdar, Lillian J. Ratliff, Micheal I. Jordan, S. Shankar Sastry. Policy-Gradient Algorithms Have No Guarantees of Convergence in Linear Quadratic Games. *Autonmous Agents and Multi-Agent Systems, AAMAS*, 2020.
- 5. Valmik Prabhu, Amay Saxena, and S. Shankar Sastry. *Exponentially Stable First Order Control on Matrix Lie Groups*. arXiv preprint arXiv:2004.00239, 2020. [PDF]
- Tyler Westenbroek, Fernando Castañeda, Ayush Agrawal, Shankar Sastry, Koushil Sreenath. Learning Min-norm Stabilizing Control Laws for Systems with Unknown Dynamics. Arxiv 2004.10331(2020).
- 7. Tyler Westenbroek, Eric Mazumdar, David Fridovich-Keil, Valmik Prabhu, Claire J. Tomlin and S. Shankar Sastry. *Adaptive Control for Linearizable Systems using On-Policy Reinforcement Learning*. arxiv2004.02766, 2020.
- 8. Tyler Westenbroek, David Fridovich Keil, Eric Mazumdar, Shreyas Arora, Valmik Prabhu, S. Shankar Sastry, and Claire J. Tomlin. *Feedback Linearization for Unknown Systems via Reinforcement Learning*. arXiv:1910.13272 (2019).
- 9. K. Nar, S. S. Sastry. Persistency of excitation for robustness of neural networks. arXiv: 1911.01043 cs.LG, (2019).
- 10. Tyler Westenbroek, Xiaobin Xiong, Aaron Ames and Shankar Sastry. *Optimal Control for Piecewise-Smooth Systems Via Singular Perturbation. Conference on Decision and Control*, 2019.
- 11. J. F. Fisac, E. Bronstein, E. Stefansson, D. Sadigh, S. S. Sastry, and A. D. Dragan. Hierarchical Game-Theoretic Planning for Autonomous Vehicles. *International Conference on Robotics and Automation (ICRA)*, 2019.
- 12. Dorsa Sadigh, S. Shankar Sastry, SanjitA.Seshia. *Verifying Robustness of Human-Aware Autonomous Cars*. Elsevier BI. 2019: 131–38.
- 13. Eric Mazumdar, Lillian J. Ratliff, Shankar Sastry, Michael I. Jordan. *Policy Gradient in Linear Quadratic Dynamic Games Has No Convergence Guarantees*. Smooth Games Optimization and Machine Learning Workshop: Bridging Game Theory and Deep Learning, NeuRIPS, 2019.
- 14. Tyler Westenbroek, Roy Dong, Lillian J. Ratliff, and S. Shankar Sastry. Competitive Settings Statistical Estimation with Strategic Data Sources. In *IEEE Transactions on Automatic Control*, 2019.

- 8. Kamil Nar, Orhan Ocal, S. Shankar Sastry, Kannan Ramchandran. Cross-Entropy Loss and Low-Rank Features Have Responsibility for Adversarial Examples. arxiv1901.08360, 2019.
- Eric Mazumdar, Michael I. Jordan, S. Shankar Sastry. On Finding Local Nash Equilibria (and Only Local Nash Equilibria) in Zero-Sum Continuous Games. arxiv1901.00838, 2019.
- 17. Dorsa Sadigh, S. Sankar Sastry, Sanjit A. Seshia. Verifying Robustness of Human-Aware Autonomous Cars. *Proceedings of the 2nd IFAC Conference on Cyber-Physical and Human Systems*, December 2018.
- 18. Dorsa Sadigh, Nick Landolfi, S. Shankar Sastry, Sanjit A. Seshia, Anca D. Dragan. Planning for Cars that Coordinate with People: Leveraging Effects on Human Actions for Planning and Active Information Gathering over Human Internal State. *Proceedings of Autonomous Robots (AURO)*, October 2018, volume 42, number 7, pages 1405—1426. [PDF]
- 19. Roy Dong, Alvaro A. Cardenas, Lillian J. Ratliff, Henrik Ohlsson, and Shankar Sastry. Quantifying the Utility-Privacy Tradeoff in the Smart Grid. *ACM Transactions on Cyber-Physical Systems*, Vol. 2, No. 2, paper 8, 2018.
- 20. Kamil Nar, Shankar Sastry. *Residual Deep Learning Networks: Lyapunov Stability and Convex Decomposition*. arXiv:1803.08203v1 [cs.LG] 22 Mar 2018.
- 21. Tyler Westenbroek, S. Shankar Sastry. *A New Solution Concept and Family of Relaxations for Hybrid Dynamical Systems*. arXiv:1803.08092v2 [math.DS] 26 Mar 2018.
- 22. R. Jia, R. Dong, P. Ganesh, S. S. Sastry, C. Spanos. Towards a Theory of Free-Lunch Privacy in Cyber-Physical Systems. *In the 55th Annual Allerton Conference on Communication, Control, and Computing*, 2017.
- 23. T. Westenbroek, R. Dong, L. J. Ratliff, S. S. Sastry. Statistical Estimation in Competitive Settings with Strategic Data Sources. *In the IEEE 56th Conference on Decision and Control (CDC)*, December 2017.
- 24. O. Afolabi, K. R. Driggs-Campbell, R. Dong, M. Kochenderfer, S. S. Sastry. *People as Sensors: Imputing Maps from Human Actions*. To appear in the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), September 2018.
- 25. Dexter R.R. Scobee, Vicenc, Rubies Royo, Claire J. Tomlin, S. Shankar Sastry. *Haptic Assistance via Inverse Reinforcement Learning*. IEEE Conference on Systems, Man, and Cybernetics (SMC) October 2018.
- 26. Kamil Nar, S. Shankar Sastry. *Step Size Matters in Deep Learning*. Advances in Neural Information Processing Systems. December 2018.
- 27. Kamil Nar, S. Shankar Sastry. *An Analytical Framework to Address the Data Exfiltration of Advanced Persistent Threats*. Proceedings of IEEE Conference on Decision and Control. 2018, December 2018.
- 28. R. Jia, R. Dong, S. S. Sastry, C. Spanos. Optimal Sensor-Controller Codesign for Privacy in Dynamical Systems. In the *IEEE 56th Conference on Decision and Control (CDC)*, 2017.
- 29. D. Calderone, R. Dong, S. S. Sastry. External-Cost Wardrop Equilibria in Routing Games. In the *IEEE 20th International Conference on Intelligent Transportation Systems (ITSC)*, 2017.

- 30. R. Jia, R. Dong, S. S. Sastry, C. J. Spanos. Privacy-Enhanced Architecture for Occupancy-based HVAC Control. In the 8th ACM/IEEE International Conference on Cyber-Physical Systems (ICCPS), 2017.
- 31. Dorsa Sadigh, Anca D. Dragan, S. Shankar Sastry, Sanjit A. Seshia. Active Preference-Based Learning of Reward Functions. *Proceedings of Robotics: Science and Systems (RSS)*, July 2017.
- 32. Negar Mehr, Dorsa Sadigh, Roberto Horowitz, S. Shankar Sastry, Sanjit A. Seshia. Stochastic Predictive Freeway Ramp Metering from Signal Temporal Logic Specifications. *Proceedings of the American Control Conference*, May 2017.
- 33. Eric Mazumdar, Roy Dong, Vicenc Rubies Royo, Claire Tomlin, S. Shankar Sastry A Multi-Armed Bandit Approach for Online Expert Selection in Markov Decision Processes. arXiv:1707.05714v1 [cs.SY] 18 Jul 2017.
- 34. Ioannis Konstantakopoulos, Lillian J. Ratliff, Ming Jin, S. Shankar Sastry, and Costas Spanos. A Robust Utility Learning Framework via Inverse Optimization. *IEEE Transactions on Control Systems Technology*, pp. 1--17, 2017.
- 35. Kamil Nar, Lillian J. Ratliff, and S. Shankar Sastry. Learning Prospect Theory Value Function and Reference Point of a Sequential Decision Maker. In *Proceedings of the 56th IEEE Conference on Decision and Control*, 2017.
- 36. Eric Mazumdar, Lillian J. Ratliff, Tanner Fiez, and S. Shankar Sastry. Gradient--Based Inverse Risk-Sensitive Reinforcement Learning with Applications. In *Proceedings of the 56th IEEE Conference on Decision and Control*, 2017.
- 37. Jaime F. Fisac, Monica A. Gates, Jessica B. Hamrick, Chang Liu, Dylan Hadfield-Menell, Malayandi Palaniappan, DhruvMalik, S. Shankar Sastry, Thomas L. Griffiths, and Anca D. Dragan. *Pragmatic-Pedagogic Value Alignment*. International Symposium on Robotics Research, Chile, 2017.
- 38. E. Elhamifar, G. Sapiro, and S. Sastry. Dissimilarity-based Sparse Subset Selection. *IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI)*, 2016.
- 39. Lillian J. Ratliff, Samuel A. Burden, S. Shankar Sastry. On the Characterization of Local Nash Equilibria in Continuous Games. *IEEE Transactions on Automatic Control*, Vol. 61. No. 8, pp. 2301-2307, 2016.
- 40. Ioannis C. Konstantakopoulos, Lillian Ratliff, Ming Jin, Costas Spanos, S. Shankar Sastry. Smart Building Energy Efficiency via Social Game: A Robust Utility Learning Framework for Closing the Loop. *1st International Workshop on Science of Smart City Operations and Platforms Engineering (SCOPE)* ACM/IEEE CPS Week, 2016.
- 41. Daniel Calderone, Eric Mazumdar, Lillian Ratliff, S. Shankar Sastry. Understanding the Impact of Parking on Urban Mobility via Routing Games on Queue Flow Networks. *IEEE Conference on Decision and Control*, 2016.
- 42. Ioannis C. Konstantakopoulos, Lillian Ratliff, Ming Jin, Costas Spanos, S. Shankar Sastry. Inverse Modeling of Non-Cooperative Agents via Mixture of Utilities. *Proceedings of the IEEE Conference on Decision and Control*, 2016.
- 43. Ioannis Konstantakopoulos, Lillian J. Ratliff, Ming Jin, S. Shankar Sastry, and Costas Spanos. Inverse Modeling of Non-Cooperative Agents via Mixture of Utilities. *Proceedings of the IEEE Conference on Decision and Control*, pp. 6327-6334, Dec 2016.
- 44. Dorsa Sadigh, Shankar Sastry, Sanjit A. Seshia, and Anca D. Dragan. *Planning for autonomous cars that leverages effects on human actions*. In Proceedings of the Robotics: Science and Systems Conference (RSS). 2016.
- 45. Dorsa Sadigh, S. Shankar Sastry, Sanjit A. Seshia, and Anca Dragan. Information gathering actions over human internal state. In *Intelligent Robots and Systems (IROS)*, 2016 IEEE/RSJ International Conference, pp. 66-73. IEEE, 2016.
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