

Jeff S. Shamma

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Education

1988 Doctor of Philosophy in Systems Science and Engineering
Department of Mechanical Engineering
Massachusetts Institute of Technology

1985 Master of Science in Mechanical Engineering
Massachusetts Institute of Technology

1983 Bachelor of Science in Mechanical Engineering (highest honors)
Georgia Institute of Technology

Personal Background

Born in New York City, 1963. Raised in Pensacola, Florida. United States citizen. Married with four children.

Academic Appointments

2014–present Professor of Electrical Engineering, King Abdullah University of Science and Technology (KAUST).
2007–2014 Professor and Julian T. Hightower Chair of Systems and Control. Georgia Institute of Technology.
1999–2007 Professor of Mechanical and Aerospace Engineering. University of California Los Angeles.
1992–1998 Assistant/Associate Professor of Aerospace Engineering. University of Texas Austin.
1989–1991 Assistant Professor of Electrical Engineering. University of Minnesota Minneapolis.
1988–1989 Postdoctoral Fellow, Laboratory of Information and Decision Systems, MIT.

Affiliations

2014–present Professor of Mechanical Engineering, by courtesy, King Abdullah University of Science and Technology.
2011–2014 Professor of Computer Science, by courtesy. Georgia Institute of Technology.
2010–2014 Professor of Industrial and Systems Engineering, by courtesy. Georgia Institute of Technology.
2006–2007 Professor of Electrical Engineering, by courtesy. University of California Los Angeles.

Visiting Appointments

2002–2007 Visiting Associate of Control and Dynamical Systems. California Institute of Technology.
2003 (summer) Visiting Professor at University of Florida Research and Engineering Education Facility.
2003 (spring) Visiting Professor at MIT Laboratory of Information and Decision Systems.
2002 (summer) Visiting Researcher at University of Florida Graduate Engineering Research Center.
1999 (summer/fall) Visiting AFOSR/IPA Researcher at Eglin Air Force Base.
1991 (summer) Visiting AFOSR Faculty Researcher at Eglin Air Force Base.

Awards and Honors

2017 Distinguished Lecturer, IEEE Control Systems Society.
2016 Fellow, IFAC, “*for contributions to linear parameter varying systems, multiagent systems, game theory, and robust control*”
2013 Mohammed Dahleh Award
2011 Air Force Exemplary Civilian Service Award
2006 Fellow, IEEE, “*for contributions to feedback control and systems theory*”
1998 University of Texas Charles Elmer Rowe Fellowship in Engineering
1996 American Automatic Control Council Donald P. Eckman Award
1995 Lockheed Martin Departmental Excellence in Engineering Teaching Award
1992 NSF Young Investigator Award (NYI)
1991 NSF Research Initiation Award

Advisee Awards and Honors

2017	Team KAUST: 3rd Place Ground Robotics Challenge Mohamed Bin Zayed International Robotics Challenge (MBZIRC)
2017	Mohammad Shaqura: Finalist, IEEE International Conference on Mechatronics and Automation (ICMA) Best Student Paper Award
2015	Daniel Pickem: Finalist, IEEE Conference on Decision and Control (CDC) Best Student Paper Award
2007	Jason Marden: Outstanding Graduating PhD Student in Mechanical Engineering

Plenary & Distinguished Lectures

2018	Distinguished Lecture Series, Electrical & Computer Engineering, University of Toronto, Canada. (forthcoming)
2018	Keynote Speaker, International Symposium on Mechatronics and Its Applications (ISMA18), Sharjah, United Arab Emirates. (forthcoming)
2016	Semi-Plenary Speaker, Fifth World Congress of the Game Theory Society (GAMES 2016), Maastricht, The Netherlands.
2014	Keynote Speaker, Symposium on Game Theory for Signal and Information Processing, IEEE GlobalSIP 2014, Atlanta, GA, USA.
2014	Dean's Distinguished Lecture, CEMSE Division, KAUST, Thuwal, Saudi Arabia.
2013	Plenary Speaker, 52nd IEEE Conference on Decision and Control (CDC), Florence, Italy.
2013	Mohammed Dahleh Distinguished Lecture, University of California Santa Barbara, CA, USA.
2012	Distinguished Lecture Series, ACCESS Linnaeus Centre, KTH, Stockholm, Sweden.
2011	Plenary Speaker, Valuetools 2011, Cachan, France.
2009	Distinguished Lecture Series, Institute for Systems Research, University of Maryland, USA.
2009	Plenary Speaker, 1st IFAC Workshop on Estimation and Control of Networked Systems (NecSys'09), Venice, Italy.
2008	Jones Seminar on Science, Technology, and Society, Dartmouth College, USA.
2008	Plenary Speaker, 27th Benelux Meeting on Systems and Control, Heeze, The Netherlands.
2008	Plenary Speaker, LIDS Student Conference, Massachusetts Institute of Technology, USA.
1998	Plenary Speaker, American Control Conference, Philadelphia, PA, USA.

Current Research Projects

sole PI

2017–2020	<i>Saudi Aramco: Hybrid Aerial Locomotion for Pipe and Structure Inspection</i> Total: \$392,500
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coPI

2015–2020	<i>KAUST Sensor Initiative: Perpetual Wireless Sensor Networks for Large Scale Wide Area Monitoring</i> PI: Slim Alouini, KAUST. Collaborators: Delft, MIT. Total: \$2,000,000. Individual: \$225,000
2015–2018	<i>KAUST/KFUPM Initiative: Biometric Data Based Crowd Management and Risk Mitigation for High Population Event</i> PI: Muhammad Hussain, KAUST. Collaborators: KFUPM. Total: \$813,600. Individual: \$231,818

Past Research Projects

PI

2014–2017	<i>ARO: Coevolutionary Complex Networks: Dynamical Foundations, Influence, and Control</i> PI: Jeff S. Shamma, Georgia Tech. co-PI: Joshua Weitz, Georgia Tech. NOTE: PI status transferred to Prof. Joshua Weitz due to leave of absence, August 2014. Total: \$825,000
2009–2015	<i>AFOSR/MURI: Distributed Learning and Information Dynamics in Networked Autonomous Systems.</i> PI: Jeff S. Shamma, Georgia Tech. Collaborators: Johns Hopkins University, MIT, U Maryland. NOTE: PI status transferred to Prof. Eric Feron due to leave of absence, August 2014. Total: \$7,500,000. Georgia Tech: \$1,800,000.
2009–2015	<i>ONR: Game Theoretic Learning for Distributed Autonomous Collaboration</i>

PI: Jeff S. Shamma, Georgia Tech. Collaborators: Johns Hopkins University, MIT.
 NOTE: PI status transferred to Prof. Eric Feron due to leave of absence, August 2014.
 Total: \$3,300,000. Georgia Tech: \$1,397,175.

2008–2011
AFOSR: Coordinated Multidisciplinary Design of Complex Human Machine Systems
 PI: Jeff S. Shamma, Georgia Tech. Collaborator: UIUC.
 Total: \$1,400,000. Georgia Tech: \$850,000.

2005–2008
AFOSR: Control Theoretic Modeling for Uncertain Cultural Attitudes and Unknown Adversarial Intent
 PI: Jeff S. Shamma, UCLA. Collaborator: MIT.
 Total: \$600,000. UCLA: \$300,000.

2001–2006
AFOSR/MURI: Cooperative Control of Distributed Autonomous Vehicles in Adversarial Environments
 PI: Jeff S. Shamma, UCLA. Collaborators: Caltech, Cornell, MIT.
 Total: \$5,000,000. UCLA: \$1,750,000.

2001–2003
DARPA/MICA: Hierarchical Control of Distributed Semi-Autonomous Forces
 PI: Jeff S. Shamma, UCLA. Collaborators: Caltech, Cornell, MIT.
 Total: \$2,750,000. UCLA: \$1,025,000.

1999–2001
DARPA/JFACC: Distributed Agile Control in Hostile Environments
 PI: Jeff S. Shamma, UCLA. Collaborator: MIT.
 Total: \$1,526,999. UCLA: \$750,000.

coPI

2010–2016
AFOSR/MURI: Multi-Layer & Multi-Resolution Networks of Interacting Agents in Adversarial Environments
 PI: Tamer Basar, U Illinois.
 NOTE: coPI status transferred to Prof. Eric Feron due to leave of absence, August 2014.
 Georgia Tech: \$625,000.

2009–2014
ARO/MURI: A Cyber Awareness Framework for Attack Analysis, Prediction, and Visualization
 PI: Richard Kemmerer, UCSB.
 NOTE: coPI status transferred to Prof. Eric Feron due to leave of absence, August 2014.
 Georgia Tech: \$780,000.

2012–2014
ARO/MURI: Evolution of Cultural Norms and Dynamics of Socio-Political Change
 PI: Ali Jadbabaie, U Penn.
 Georgia Tech: \$235,100.

2009–2014
AFOSR: Dynamics of Beliefs, Culture, and Social Interactions
 PI: Asu Ozdaglar, MIT.
 Georgia Tech: \$435,000.

2010–2011
DARPA: Self-Organized Physical Intelligence System
 PI: Yong Chen, UCLA.
 Georgia Tech: \$135,000.

2008–2010
AFOSR/MURI: Computational Models for Belief Revision, Group Decisions and Cultural Shifts
 PI: Whitman Richards, MIT.
 Georgia Tech: \$208,000.

2003–2006
NSF/USDoT: Congestion Control and Evolutionary Games in Traffic Management
 PI: Fernando Paganini, UCLA.
 UCLA: \$150,000.

1999–2001
NASA: Precise Relative State Estimation and Control of Distributed Satellite Network
 PI: Jason Speyer, UCLA.
 UCLA: \$386,231

sole PI

2015
Saudi Aramco: Autonomous Surface Vehicle Following of an Underwater Remotely Operative Vehicle
 Total: \$46,000.

2005–2009
NSF: Distributed Adaptive Systems: Feedback Control with Evolutionary Games
 Total: \$240,000.

2004–2007
ARO: Designing Complex Adaptive Systems using Feedback Control for Learning in Games
 Total: \$300,000.

1999
Eglin AFB (IPA): Saturation and Constraint Avoidance in Nonlinear Control Design
 Total: \$73,260

1997–1998
National Instruments: Development of Undergraduate Feedback Controls Laboratory
 Total: \$17,654

1997–1998	<i>AFOSR: Set-Valued Methods for Nonlinear Robust Control</i> Total: \$190,000
1994–1996	<i>Ford Motor Co.: Automotive Control Applications of Gain Scheduling</i> Total: \$17,500
1994–1997	<i>EPRI: New Techniques for the Feedback Control Approach of Gain-Scheduling</i> Total: \$112,500
1993	<i>Eglin AFB: Missile Autopilot Design by Trajectory Scheduling</i> Total: \$11,766
1993–1994	<i>Southwest Research Institute: A–10 SAS/LASTE Control System Investigation</i> Total: \$20,000
1992–1997	<i>NSF: Young Investigator Award</i> Total: \$312,500.
1992–1994	<i>NSF Research Initiation Award: Robust Control for Nonlinear Systems</i> Total: \$59,900
1993	<i>U of Texas Research Inst. Summer Award: Nonlinear Control via Gain-Scheduling</i> Total: \$11,800
1992	<i>U of Texas Chancellor’s Council: Gain-Scheduled Missile Autopilot Design</i> Total: \$11,800
1992	<i>AFOSR Summer Research Program Initiation Grant: Gain-Scheduled Missile Autopilot Design</i> Total: \$20,000
1989–1990	<i>U of Minnesota Graduate School: Asymptotic Performance Recovery through Adaptive Robust Control</i> Total: \$6,200

Publications

Under Review

- U1 F.M. Aziz, L. Li, J.S. Shamma, and G.L. Stüber, “LTE network and smart jammer strategies in infinite-horizon asymmetric repeated game”, *IEEE Transactions on Vehicular Technology*, submitted 2017. (under revision)
- U2 H.P. Borowski, J.R. Marden, and J.S. Shamma, “Learning efficient correlated equilibria”, *Dynamic Games and Applications*, submitted 2017.
- U3 S. Güler, M.A. Algarni, M.Z. Shaqura, H. Jaleel, M.A. Mabrok, J. Jiang, Y. Lu, and J.S. Shamma, “Perception, navigation, and manipulation in the team KAUST approach to the MBZIRC ground robotics challenge”, *Journal of Field Robotics*, submitted 2017.
- U4 S. Güler, J. Jiang, A.A. Alghamdi, R.I. Masoud, and J.S. Shamma, “Real time onboard ultrawideband localization scheme for an autonomous two-robot system”, *2nd IEEE Conference on Control Technology and Applications*, submitted 2018.
- U5 H. Jaleel, M. Abdelkader, and J.S. Shamma, “Distributed motion coordination over discrete domain with submodular minimization”, *2nd IEEE Conference on Control Technology and Applications*, submitted 2018.
- U6 L. Li and J.S. Shamma, “Efficient strategy computation in zero-sum asymmetric repeated games”, *IEEE Transactions on Automatic Control*, submitted 2017.
- U7 L. Li, C. Langbort, and J.S. Shamma, “An LP approach for solving two-player zero-sum repeated Bayesian games”, *IEEE Transactions on Automatic Control*, submitted 2017. (under revision)
- U8 L. Li, C. Langbort, and J.S. Shamma, “Security strategies of both players in asymmetric information zero-sum stochastic games with an informed controller”, *Dynamic Games and Applications*, submitted 2017.

Expository Articles

- E9 J.R. Marden and J.S. Shamma, “Game theory and control”, *Annual Review of Control, Robotics, and Autonomous Systems*, 2018. (to appear)
- E10 J.R. Marden and J.S. Shamma, “Game-theoretic learning in distributed control”, in T. Basar and G. Zaccour (Eds), *Handbook of Dynamic Game Theory*, Springer, 2017.
- E11 J.S. Shamma, “Learning in games”, in J. Baillieul and T. Samad (eds): *Encyclopedia of Systems and Control*, Springer, 2015, pp. 620–628.
- E12 J.R. Marden and J.S. Shamma, “Game theory and distributed control”, in H.P. Young and S. Zamir (Eds): *Handbook of Game Theory, Volume IV*, Elsevier, 2015, pp. 861–899.

- E13 J.S. Shamma, "Gain-Scheduling," *Encyclopedia of Electrical and Electronics Engineering*, J.G. Webster (ed), John Wiley & Sons, Inc., 1998.
- E14 J.S. Shamma, "Linearization and Gain-Scheduling," *CRC Controls Handbook*, W. Levine (ed), CRC Press, 1996.

Journal Publications

- J15 H. Mahdaviifar, A. Beirami, B. Touri, and J.S. Shamma, "Global games with noisy information sharing", *IEEE Transactions on Signal and Information Processing over Networks*, accepted 2017. (to appear)
- J16 E. Odat, J.S. Shamma, and C. Claudel, "Vehicle classification and speed estimation using combined passive infrared/ultrasonic sensors in wireless sensor networks", *IEEE Transactions on Intelligent Transportation Systems*, accepted 2017. (to appear)
- J17 H. Jaleel and J.S. Shamma, "Design of real-time implementable distributed suboptimal control: An LQR Perspective", *IEEE Transactions on Control of Network Systems*, accepted 2017. (to appear)
- J18 A.H. Dehwah, J.S. Shamma, and C. Claudel, "A distributed routing scheme for energy management in solar powered sensor networks", *Ad Hoc Networks*, December 2017, pp. 11–23.
- J19 K. Paarporn, C. Eksin, J.S. Weitz, and J.S. Shamma, "Networked SIS epidemics with awareness", *IEEE Transactions on Computational Social Systems*, September 2017, pp. 93–103.
- J20 A.Y. Yazicioglu, M. Egerstedt, and J.S. Shamma, "Communication-free distributed coverage for networked systems", *IEEE Transactions on Control of Network Systems*, September 2017, pp. 499–510.
- J21 F.M. Aziz, J.S. Shamma, and G.L. Stüber, "Jammer type estimation in LTE with a smart jammer repeated game", *IEEE Transactions on Vehicular Technology*, August 2017, pp. 7422–7431.
- J22 C. Eksin, J.S. Shamma, and J.S. Weitz, "Disease dynamics on a network game: A little empathy goes a long way", *Scientific Reports*, March 2017, 13 pages. (online pdf)
- J23 D. Hamza and J.S. Shamma, "BLMA: A blind matching algorithm with application to cognitive radio networks", *IEEE Journal on Selected Areas in Communications*, Special Issue on Game Theory for Networks, February 2017, pp. 302–316.
- J24 G. Piliouras, E. Nikolova, and J.S. Shamma, "Risk sensitivity of price of anarchy under uncertainty", *ACM Transactions on Economics and Computation*, November 2016, pp. 5:1–5:27.
- J25 B. Ghareisifard, B. Touri, T. Basar, and J.S. Shamma, "On the convergence of piecewise linear strategic interaction dynamics on networks", *IEEE Transactions on Automatic Control*, June 2016, pp. 1682–1687.
- J26 A.Y. Yazicioglu, M. Egerstedt, and J.S. Shamma, "Formation of robust multi-agent networks through self-organization of random regular graphs", *IEEE Transactions on Network Science and Engineering*, October–December 2015, pp. 139–151.
- J27 M.J. Fox and J.S. Shamma, "Probabilistic performance guarantees for distributed self-assembly", *IEEE Transactions on Automatic Control*, December 2015, pp. 3180–3194.
- J28 G.C. Chasparis, J.S. Shamma, and A. Rantzer, "Non-convergence to saddle boundary points under perturbed reinforcement learning", *International Journal of Game Theory*, August 2015, pp. 667–699.
- J29 M.J. Fox, B. Touri, and J.S. Shamma, "Dynamics in atomic signaling games", *Journal of Theoretical Biology*, July 2015, pp. 82–90.
- J30 M. Pakmehr, N. Fitzgerald, E. Feron, J.S. Shamma, and A. Behbahani, "Gain scheduled control of gas turbine engines: Stability and verification", *ASME Journal of Engineering for Gas Turbines and Power*, March 2014, pp. 031201-1–031201-15.
- J31 G.C. Chasparis and J.S. Shamma, "Network formation: Neighborhood structures, establishment costs, and distributed learning", *IEEE Transactions on Cybernetics*, December 2013, pp. 1950–1962.
- J32 M.J. Fox and J.S. Shamma, "Population games, stable games, and passivity", *Games*, October 2013, pp. 561–583.
- J33 G.C. Chasparis, A. Arapostathis, and J.S. Shamma, "Aspiration learning in coordination games", *SIAM Journal on Control and Optimization*, February 2013, pp. 465–490.
- J34 J.R. Marden and J.S. Shamma, "Revisiting log-linear learning: Asynchrony, completeness and payoff-based implementation", *Games and Economic Behavior*, July 2012, pp. 788–808.
- J35 G.C. Chasparis and J.S. Shamma, "Distributed dynamic reinforcement of efficient outcomes in multiagent coordination and network formation", *Dynamic Games and Applications*, March 2012, pp. 18–50.
- J36 F. Yu, I. Al-Shyoukh, J. Feng, X. Li, C.W. Liao, C.-M. Ho, J.S. Shamma, and R. Sun, "Control of Kaposi's sarcoma-associated herpesvirus reactivation induced by multiple signals", *PLoS ONE*, June 2011, 13 pages. (online pdf)

- J37 I. Al-Shyoukh, F. Yu, J. Feng, K. Yan, S. Dubinett, C.-M. Ho, J.S. Shamma, and R. Sun, "Systematic quantitative characterization of cellular responses induced by multiple signals", *BMC Systems Biology*, May 2011, 17 pages. (online pdf)
- J38 P. Rosa, J.S. Shamma, C. Silvestre, and M. Athans, "Stability overlay for adaptive control laws", *Automatica*, May 2011, pp. 1007–1014
- J39 J.R. Marden, G. Arslan, and J.S. Shamma, "Cooperative control and potential games", *IEEE Transactions on Systems, Man, and Cybernetics*, December 2009, pp. 1393–1407.
- J40 Y. Park, J.S. Shamma, and T.C. Harmon, "A receding horizon control algorithm for adaptive management of soil moisture and chemical levels during irrigation", *Environmental Modelling & Software*, September 2009, pp. 1112–1121.
- J41 I. Al-Shyoukh and J.S. Shamma, "Switching supervisory control using calibrated forecasts", *IEEE Transactions on Automatic Control*, April 2009, pp. 705–716.
- J42 J.R. Marden, H.P. Young, G. Arslan, and J.S. Shamma, "Payoff-based dynamics for multi-player weakly acyclic games", *SIAM Journal on Control and Optimization*, Special Issue on Control and Optimization in Cooperative Networks, 2009, pp. 373–396.
- J43 J.R. Marden, G. Arslan, and J.S. Shamma, "Joint strategy fictitious play with inertia for potential games", *IEEE Transactions on Automatic Control*, February 2009, pp. 208–220.
- J44 C.-P. Sun, T. Usui, F. Yu, I. Al-Shyoukh, J. Shamma, R. Sun and C.-M. Ho, "Integrative systems control approach for reactivating Kaposi's sarcoma-associated herpesvirus (KSHV) with combinatory drugs", *Integrative Biology*, 2009, pp. 123–130.
- J45 G. Arslan, J.R. Marden, and J.S. Shamma, "Autonomous vehicle-target assignment: A game theoretical formulation", *ASME Journal of Dynamic Systems, Measurement, and Control*, Special Issue on "Analysis and Control of Multi-Agent Dynamic Systems", September 2007, pp. 584–596.
- J46 S. Mannor and J.S. Shamma, "Multi-agent learning for engineers", *Artificial Intelligence*, Special Issue on "Foundations of Multi-Agent Learning", May 2007, pp. 417–422.
- J47 S. Mannor, J.S. Shamma, and G. Arslan, "Online calibrated forecasts: Memory efficiency vs universality for learning in games", *Machine Learning Journal*, Special Issue on "Learning and Computational Game Theory", May 2007, pp. 77–115.
- J48 J.S. Shamma and G. Arslan, "A Decomposition Approach to Distributed Control of Spatially Invariant Systems", *IEEE Transactions on Automatic Control*, April 2006, pp. 701–707.
- J49 J.S. Shamma and G. Arslan, "Dynamic fictitious play, dynamic gradient play, and distributed convergence to Nash equilibria", *IEEE Transactions on Automatic Control*, March 2005, pp. 312–327.
- J50 J.S. Shamma and G. Arslan, "Unified convergence proofs of continuous-time fictitious play", *IEEE Transactions on Automatic Control*, July 2004, pp. 1137–1142.
- J51 P.-C. Chen and J. S. Shamma, "Gain-scheduled ℓ_1 -optimal control for boiler-turbine dynamics with actuator saturation", *Journal of Process Control*, April 2004, pp. 263–277.
- J52 J.S. Shamma and J. Cloutier, "Existence of SDRE Stabilizing Controllers", *IEEE Transactions on Automatic Control*, March 2003, pp. 513–517.
- J53 D. Ghose, M. Krichman, J.L. Speyer, and J.S. Shamma, "Modeling and analysis of air campaign resource allocation: A spatio-temporal decomposition approach", *IEEE Transactions on Systems, Man, and Cybernetics*, May 2002, pp. 403–418.
- J54 D. Ghose, J.L. Speyer, and J.S. Shamma, "A game theoretical multiple resource interaction approach to temporal resource allocation in an air campaign", *Annals of Operations Research*, January 2002, pp. 15–40.
- J55 C.-H. Hsu and J.S. Shamma, "Further results on linear non-quadratic optimal control", *IEEE Transactions on Automatic Control*, May 2001, pp. 732–736.
- J56 W.J. Rugh and J.S. Shamma, "A survey of research on gain scheduling", *Automatica*, September 2000, pp. 1401–1425.
- J57 J.S. Shamma, "Anti-windup via controlled invariance with observers", *Systems and Control Letters*, July 2000, pp. 261–268.
- J58 J.S. Shamma and D. Xiong, "Set-valued methods for linear parameter varying systems", *Automatica*, June 1999, pp. 1081–1089.
- J59 J.S. Shamma and K.-Y. Tu, "Set-valued observers and optimal disturbance rejection", *IEEE Transactions on Automatic Control*, February 1999, pp. 253–264.
- J60 J.S. Shamma and K.-Y. Tu, "Output feedback control for systems with constraints and saturations: Scalar control case", *Systems & Control Letters*, August 1998, pp. 1–12.
- J61 J.S. Shamma and D. Xiong, "Linear non-quadratic optimal control", *IEEE Transactions on Automatic Control*, June 1997, pp. 875–879.

- J62 J.S. Shamma and K.-Y. Tu, "Approximate set-valued observers for nonlinear systems", *IEEE Transactions on Automatic Control*, May 1997, pp. 648–658.
- J63 L. Carter and J.S. Shamma, "Gain-scheduled bank-to-turn autopilot design using linear parameter varying transformations", *AIAA Journal of Guidance, Control, and Dynamics*, September 1996, pp. 1056–1063.
- J64 J.S. Shamma, "Optimization of the ℓ_∞ -induced norm under full state feedback," *IEEE Transactions on Automatic Control*, April 1996, pp. 553–544.
- J65 K. Poolla and J.S. Shamma, "Optimal asymptotic performance via nonlinear controllers," *International Journal of Control*, December 1995, pp. 1367–1389.
- J66 J.S. Shamma, "Robust stability analysis of time-varying systems using time-varying quadratic forms," *Systems & Control Letters*, 1995, pp. 13–17.
- J67 J.S. Shamma, "Robust stability with time-varying structured uncertainty," *IEEE Transactions on Automatic Control*, April 1994, pp. 714–724.
- J68 J.S. Shamma, "Nonlinear state feedback for ℓ^1 optimal control," *Systems & Control Letters*, October 1993, pp. 265–270.
- J69 J.S. Shamma and J.R. Cloutier, "Gain scheduled missile autopilot design using linear parameter varying transformations," *AIAA Journal of Guidance, Control, and Dynamics*, March 1993, pp. 256–263.
- J70 J.S. Shamma and R. Zhao, "Fading memory feedback systems and robust stability," *Automatica*, Special Issue on Robust Control, January 1993, pp. 191–200.
- J71 J.S. Shamma and M. Athans, "Gain scheduling: Possible hazards and potential remedies," *IEEE Control Systems Magazine*, June 1992, pp. 101–107.
- J72 M.A. Dahleh and J.S. Shamma, "Rejection of persistent bounded disturbances: Nonlinear controllers," *Systems & Control Letters*, May 1992, pp. 245–252.
- J73 J.S. Shamma, "The necessity of the small-gain theorem for time-varying and nonlinear systems," *IEEE Transactions on Automatic Control*, October 1991, pp. 1138–1147.
- J74 J.S. Shamma, "Performance limitations in sensitivity reduction for nonlinear plants," *Systems & Control Letters*, July 1991, pp. 43–47.
- J75 J.S. Shamma and M.A. Dahleh, "Time-varying vs. time-invariant compensation for optimal rejection of persistent bounded disturbances and robust stabilization," *IEEE Transactions on Automatic Control*, July 1991, pp. 838–847.
- J76 J.S. Shamma and M. Athans, "Guaranteed properties of linear parameter varying gain scheduled control systems," *Automatica*, May 1991, pp. 559–564.
- J77 J.S. Shamma, "Nonlinear time-varying compensation for simultaneous performance," *Systems & Control Letters* **15**, November 1990, pp. 357–360.
- J78 J.S. Shamma and M. Athans, "Analysis of gain scheduled control for nonlinear plants," *IEEE Transactions on Automatic Control*, August 1990, pp. 898–907.
- J79 J.S. Shamma and D.E. Whitney, "A method for inverse robot calibration," *ASME Journal of Dynamic Systems, Measurement, and Control*, January 1987, pp. 36–43.
- J80 D.E. Whitney and J.S. Shamma, "Comments on 'An Exact Kinematic Model of the PUMA 600 Manipulator,'" *IEEE Transactions on Systems, Man, and Cybernetics*, January 1986, pp. 182–184.

Edited Volume

- V81 J.S. Shamma (ed.), *Cooperative Control of Distributed Multi-Agent Systems*, Wiley, 2008.

Book Chapters

- Ch82 I. Al-Shyoukh and J.S. Shamma, "A coevolutionary model of strategic network formation", in P. Contucci et al. (eds): *Complex Networks V*, Springer, 2014.
- Ch83 M. Jones, G. Kotsalis, and J.S. Shamma, "Cyber-attack forecast modeling and complexity reduction using a game-theoretic framework", in D.C. Tarraf (Ed): *Control of Cyber-Physical Systems*, LNCIS 449, pp. 65–84, Springer, 2013.
- Ch84 J.S. Shamma, "An overview of LPV systems", in J. Mohammadpour and C. Scherer (Eds): *Control of Linear Parameter Varying Systems with Applications*, Springer, 2012.

- Ch85 G.C. Chasparis and J.S. Shamma, "LP-based Multi-Vehicle Path Planning with Adversaries", in J.S. Shamma (Ed): *Cooperative Control of Distributed Multi-Agent Systems*, John Wiley & Sons, 2007.
- Ch86 V.P.-W. Seah and J.S. Shamma, "Multiagent Cooperation through Egocentric Modeling", in J.S. Shamma (Ed): *Cooperative Control of Distributed Multi-Agent Systems*, John Wiley & Sons, 2007.
- Ch87 J.S. Shamma and G. Arslan, "Dimensions of cooperative control", in J.S. Shamma (Ed): *Cooperative Control of Distributed Multi-Agent Systems*, John Wiley & Sons, 2007.
- Ch88 R. Olfati-Saber, E. Franco, E. Frazzoli, and J. S. Shamma, "Belief Consensus and Distributed Hypothesis Testing in Sensor Networks," in P. J. Antsaklis and P. Tabuada (Eds): *Network Embedded Sensing and Control*, LNCIS 331, pp. 169-182, Springer-Verlag, 2006.
- Ch89 C.-H. Hsu and J.S. Shamma, "A Decomposition Approach to Scheduling of Failure Prone Transfer Lines," *System Theory: Modeling, Analysis, and Control*, T.E. Djaferis and I.C. Schick (eds), Kluwer Academic Publishers, 1999.
- Ch90 J.S. Shamma and K. Poolla, "Optimal Asymptotic Performance via Logic Based Switching," *Control Using Logic-Based Switching*, S. Morse (ed), Springer Verlag, 1996.

Refereed Conference Publications

- C91 S. Ruf, M. Egerstedt, and J.S. Shamma, "Herdable systems over signed graphs", *2018 American Control Conference*. (to appear)
- C92 M. Abdelkader, Y. Lu, H. Jaleel, and J.S. Shamma, "Distributed real time control of multiple UAVs in adversarial environment: Algorithm and flight testing results", *ICRA 2018*. (to appear)
- C93 D. Hamza and J.S. Shamma, "Many-to-one blind matching for device-to-device communications", *56th IEEE Conference on Decision and Control*, Melbourne, Australia, December 2017.
- C94 M. Shaqura and J.S. Shamma, "A novel gripper design for multi hand tools grasping under tight clearance constraints and external torque effect", *IEEE International Conference on Mechatronics and Automation (ICMA)*, Takamatsu, Japan, August 2017.
- C95 M. Shaqura and J.S. Shamma, "An automated quadcopter CAD based design and modeling platform using Solidworks API and smart dynamic assembly", *14th International Conference on Informatics in Control, Automation and Robotics (ICINCO)*, Madrid, Spain, July 2017.
- C96 U.A. Fiaz, N. Toumi, and J.S. Shamma, "Passive aerial grasping of ferrous objects using permanent magnets", *20th International Federation of Automatic Control (IFAC) World Congress*, Toulouse, France, July 2017.
- C97 H. Jaleel and J.S. Shamma, "Transient response analysis of metropolis learning in games", *20th International Federation of Automatic Control (IFAC) World Congress*, Toulouse, France, July 2017.
- C98 M. Abdelkader, H. Jaleel, and J.S. Shamma, "A distributed framework for real time path planning in practical multi-agent systems", *20th International Federation of Automatic Control (IFAC) World Congress*, Toulouse, France, July 2017.
- C99 L. Li, C. Langbort, and J.S. Shamma, "Computing security strategies in finite horizon repeated bayesian games", *2017 American Control Conference*, Seattle, WA, USA, May 2017.
- C100 L. Li, J.-P. Clarke, E. Feron, and J.S. Shamma, "Robust trajectory option set planning in CTOP based on bayesian game model", *2017 American Control Conference*, Seattle, WA, USA, May 2017.
- C101 M.A. Mabrok and J.S. Shamma, "Passivity analysis of higher order evolutionary dynamics and population games", *55th IEEE Conference on Decision and Control*, Las Vegas, NV, USA, December 2016.
- C102 L. Li, E. Feron, and J.S. Shamma, "Finite state asymmetric repeated games: Both players' viewpoints", *55th IEEE Conference on Decision and Control*, Las Vegas, NV, USA, December 2016.
- C103 K. Paarporn, C. Eksin, J.S. Weitz, and J.S. Shamma, "The effect of awareness on networked SIS epidemics", *55th IEEE Conference on Decision and Control*, Las Vegas, NV, USA, December 2016.
- C104 H. Jaleel and J.S. Shamma, "Decentralized energy aware co-optimization of mobility and communication in multiagent systems", *55th IEEE Conference on Decision and Control*, Las Vegas, NV, USA, December 2016.
- C105 D. Hamza and J.S. Shamma, "A blind matching algorithm for cognitive radio networks", *2016 IEEE International Symposium on Information Theory (ISIT)*, Barcelona, Spain, May 2016.
- C106 G. Kotsalis and J.S. Shamma, "Limits of performance for the model reduction problem of hidden Markov models", *54th IEEE Conference on Decision and Control*, Osaka, Japan, December 2015.
- C107 L. Li and J.S. Shamma, "Efficient computation of discounted asymmetric information zero-sum stochastic games", *54th IEEE Conference on Decision and Control*, Osaka, Japan, December 2015.

- C108 D. Pickem, M. Egerstedt, and J.S. Shamma, "A game-theoretic formulation of the homogeneous self-reconfiguration problem", *54th IEEE Conference on Decision and Control*, Osaka, Japan, December 2015.
- C109 H. Mahdaviifar, A. Beirami, B. Touri, and J.S. Shamma, "Threshold policy for global games with noisy information sharing", *54th IEEE Conference on Decision and Control*, Osaka, Japan, December 2015.
- C110 K. Paarporn, C. Eskin, J.S. Shamma, and J.S. Weitz, "Epidemic Spread Over Networks with Agent Awareness and Social Distancing", *53rd Annual Allerton Conference on Communication, Control, and Computing*, Allerton, IL, USA, September 2015.
- C111 F.M. Aziz, J.S. Shamma, and G.L. Stuber, "Resilience of LTE networks against smart jamming attacks: Wideband model", *IEEE 26th Annual International Symposium on Personal, Indoor, and Mobile Radio Communications (PIMRC)*, Hong Kong, China, August 2015.
- C112 I. Al-Shyoukh, G. Chasparis, and J.S. Shamma, "Coevolutionary modeling in network formation", *IEEE Global Conference on Signal and Information Processing (GlobalSIP)*, Atlanta, GA, USA, December 2014.
- C113 H.P. Borowski, J.R. Marden, and J.S. Shamma, "Learning efficient coarse correlated equilibria", *53rd IEEE Conference on Decision and Control*, Los Angeles, CA, USA, December 2014.
- C114 N. Dubebout and J.S. Shamma, "Exogenous empirical-evidence equilibria in perfect-monitoring repeated games yield correlated equilibria", *53rd IEEE Conference on Decision and Control*, Los Angeles, CA, USA, December 2014.
- C115 K.-K. Kim and J.S. Shamma, "Multiagent sequential hypothesis testing", *53rd IEEE Conference on Decision and Control*, Los Angeles, CA, USA, December 2014.
- C116 L. Li and J.S. Shamma, "LP formulation of asymmetric zero-sum stochastic games", *53rd IEEE Conference on Decision and Control*, Los Angeles, CA, USA, December 2014.
- C117 B. Touri and J.S. Shamma, "Global games with noisy sharing of information", *53rd IEEE Conference on Decision and Control*, Los Angeles, CA, USA, December 2014.
- C118 A. Yazicioglu, M. Egerstedt, and J.S. Shamma, "Decentralized formation of random regular graphs for robust multi-agent networks", *53rd IEEE Conference on Decision and Control*, Los Angeles, CA, USA, December 2014.
- C119 F. Aziz, G. Stuber, and J.S. Shamma, "Resilience of LTE networks against smart jamming attack", *IEEE GLOBECOM 2014*, Austin, TX, USA, December 2014.
- C120 T. Yucelen and J.S. Shamma, "Adaptive architectures for distributed control of modular systems", *American Control Conference*, Portland, ME, USA, June 2014.
- C121 G. Piliouras, C. Nieto-Granda, H. Christensen, J.S. Shamma, "Persistent patterns: Multi-agent learning beyond equilibrium and utility", *13th International Conference on Autonomous Agents and Multiagent Systems (AAMAS2014)*, Paris, France, May 2014.
- C122 I. Al-Shyoukh and J.S. Shamma, "A coevolutionary model of strategic network formation", *5th Workshop on Complex Networks (CompleNet2014)*, Bologna, Italy, March 2014. (published as book chapter)
- C123 G. Piliouras and J.S. Shamma, "Optimization despite chaos: Convex relaxations to complex limit sets via Poincaré recurrence", *ACM-SIAM Symposium on Discrete Algorithms (SODA14)*, Portland, OR, USA, January 2014.
- C124 G. Kotsalis and J.S. Shamma, "Dynamic mechanism design in correlated environments", *52nd IEEE Conference on Decision and Control*, Florence, Italy, December 2013.
- C125 A.Y. Yazicioglu, M. Egerstedt, and J.S. Shamma, "Decentralized degree regulation for multi-agent networks", *52nd IEEE Conference on Decision and Control*, Florence, Italy, December 2013.
- C126 G. Kotsalis and J.S. Shamma, "Fragility and robust design of optimal auctions", *51st Annual Allerton Conference on Communication, Control, and Computing*, Monticello, IL, USA, October 2013.
- C127 A. Yazicioglu, M. Egerstedt, and J.S. Shamma, "A game theoretic approach to distributed coverage of graphs by heterogeneous mobile agents", *4th IFAC Workshop on Distributed Estimation and Control in Networked Systems (NecSys'13)*, Koblenz, Germany, September 2013.
- C128 D. Pickem, M. Egerstedt, and J.S. Shamma, "Complete heterogeneous self-reconfiguration: Deadlock avoidance using hole-free assemblies", *4th IFAC Workshop on Distributed Estimation and Control in Networked Systems (NecSys'13)*, Koblenz, Germany, September 2013.
- C129 G. Piliouras, E. Nikolova, and J.S. Shamma, "Risk sensitivity of price of anarchy under uncertainty", *14th ACM Conference on Electronic Commerce (EC'13)*, Philadelphia, PA, USA, June 2013.
- C130 M. Pakmehr, N. Fitzgerald, E.M. Feron, J.S. Shamma, and A. Behbahani, "Gain scheduling of gas turbine engines: Stability by computing a single quadratic Lyapunov function", *ASME Turbo Expo 2013*, San Antonio, TX, USA, June 2013.

- C131 Y. Lim and J.S. Shamma, "Robustness of stochastic stability in game theoretic learning", *2013 American Control Conference*, Washington, DC, USA, June 2013.
- C132 M. Jones and J.S. Shamma, "Policy improvement for repeated zero-sum games with asymmetric information", *51st IEEE Conference on Decision and Control*, Maui, HI, USA, December 2012.
- C133 M.J. Fox and J.S. Shamma, "Population games, stable games, and passivity", *51st IEEE Conference on Decision and Control*, Maui, HI, USA, December 2012.
- C134 N. Dudebout and J.S. Shamma, "Empirical evidence equilibria in stochastic games", *51st IEEE Conference on Decision and Control*, Maui, HI, USA, December 2012.
- C135 G. Kotsalis and J.S. Shamma, "A fundamental limitation to the reduction of Markov chains via aggregation", *50th Annual Allerton Conference on Communication, Control, and Computing*, Monticello, IL, USA, October 2012.
- C136 G.C. Chasparis, A. Arapostathis, and J.S. Shamma, "Fair Scheduling in Common-Pool Games by Aspiration Learning", *8th International Workshop on Resource Allocation and Cooperation in Wireless Networks (RAWNET 2012)*, Paderborn, Germany, May 2012.
- C137 M.J. Fox, G. Piliouras, and J.S. Shamma, "Medium and long-run properties of linguistic community evolution", *9th International Conference on the Evolution of Language (Evolang IX)*, Kyoto, Japan, March 2012.
- C138 G.C. Chasparis and J.S. Shamma, "Perturbed learning automata in potential games", *50th IEEE Conference on Decision and Control*, Orlando, FL, USA, December 2011.
- C139 M.J. Fox and J.S. Shamma, "Language evolution in finite populations", *50th IEEE Conference on Decision and Control*, Orlando, FL, USA, December 2011.
- C140 G. Kotsalis and J.S. Shamma, "A counterexample to aggregation based model reduction of hidden markov models", *50th IEEE Conference on Decision and Control*, Orlando, FL, USA, December 2011.
- C141 M.-F. Balcan, F. Constantin, G. Piliouras, and J.S. Shamma, "Game couplings: Learning dynamics and applications", *50th IEEE Conference on Decision and Control*, Orlando, FL, USA, December 2011.
- C142 M.J. Fox and J.S. Shamma, "Self-assembly for maximum yields under constraints", *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, San Francisco, CA, USA, September 2011.
- C143 M.J. Fox and J.S. Shamma, "Communication, convergence, and stochastic stability in self-assembly", *49th IEEE Conference on Decision and Control*, Atlanta, GA, USA, December 2010.
- C144 G. Kotsalis and J.S. Shamma, "Robust synthesis in mechanism design", *49th IEEE Conference on Decision and Control*, Atlanta, GA, USA, December 2010.
- C145 P. Rosa, C. Silvestre, J.S. Shamma, and M. Athans, "Fault detection and isolation of LTV systems using set-valued observers", *49th IEEE Conference on Decision and Control*, Atlanta, GA, USA, December 2010.
- C146 G.C. Chasparis and J.S. Shamma, "Control of preferences in social networks", *49th IEEE Conference on Decision and Control*, Atlanta, GA, USA, December 2010.
- C147 G.C. Chasparis, J.S. Shamma, and A. Arapostathis, "Aspiration learning in coordination games", *49th IEEE Conference on Decision and Control*, Atlanta, GA, USA, December 2010.
- C148 J.R. Marden and J.S. Shamma, "Revisiting log-linear learning: Asynchrony, completeness and payoff-based implementation", *48th Annual Allerton Conference*, Monticello, IL, USA, October 2010.
- C149 I. Al-Shyoukh et al., "An efficient approach for the combinatorial quantitation and control of cellular functions", *2010 Biomedical Engineering Society Annual Meeting*, Austin, TX, USA, October 2010.
- C150 P. Rosa, C. Silvestre, and J.S. Shamma, "Fault Detection and Isolation of an Aircraft Using Set-Valued Observers", *18th IFAC Symposium on Automatic Control in Aerospace*, Nara, Japan, January 2010.
- C151 P. Rosa, J.S. Shamma, C. Silvestre, and M. Athans, "Stability overlay for linear and nonlinear time-varying plants", *48th IEEE Conference on Decision and Control*, Shanghai, China, December 2009.
- C152 P. Rosa, C. Silvestre, J.S. Shamma, and M. Athans, "Multiple-model adaptive control with set-valued observers", *48th IEEE Conference on Decision and Control*, Shanghai, China, December 2009.
- C153 N. Li, J.R. Marden, and J.S. Shamma, "Learning approaches to the Witsenhausen counterexample from a view of potential games", *48th IEEE Conference on Decision and Control*, Shanghai, China, December 2009.
- C154 M. Ait Rami and J.S. Shamma, "Hybrid positive systems subject to Markovian switching", *ADHS'09: 3rd IFAC Conference on Analysis and Design of Hybrid Systems*, Zaragoza, Spain, September 2009.
- C155 P. Rosa, J.S. Shamma, C. Silvestre, and M. Athans, "Integration of the stability overlay (SO) with the robust multiple-model adaptive control (RMMAC)", *17th Mediterranean Conference on Control and Automation*, Thessaloniki, Greece, June 2009.

- C156 P. Rosa, J.S. Shamma, C. Silvestre, and M. Athans, "Stability overlay for adaptive control laws applied to linear time-invariant systems", *American Control Conference*, St. Louis, MO, USA, June 2009.
- C157 G. Chasparis and J.S. Shamma, "Efficient network formation by distributed reinforcement", *47th IEEE Conference on Decision and Control*, Cancun, Mexico, December 2008.
- C158 J.R. Marden, H.P. Young, G. Arslan, and J.S. Shamma, "Payoff based dynamics for multi-player weakly acyclic games", *46th IEEE Conference on Decision and Control*, New Orleans, LA, USA, December 2007.
- C159 I. Al-Shyoukh and J.S. Shamma, "Switching supervisory control using calibrated forecasts", *46th IEEE Conference on Decision and Control*, New Orleans, LA, USA, December 2007.
- C160 J.R. Marden, G. Arslan, and J.S. Shamma, "Connections between cooperative control and potential games illustrated on the consensus problem", *European Control Conference*, Kos, Greece, July 2007.
- C161 G. Chasparis and J.S. Shamma, "Distributed dynamic reinforcement of efficient outcomes in multiagent coordination", *European Control Conference*, Kos, Greece, July 2007.
- C162 J.R. Marden, G. Arslan, and J.S. Shamma, "Regret based Dynamics: Convergence in Weakly Acyclic Games", *Proceedings of the Sixth International Joint Conference on Autonomous Agents and Multi-Agent Systems*, Honolulu, HI, USA, May 2007.
- C163 V.P.-W. Seah and J.S. Shamma, "Multiagent cooperation through egocentric modeling", *9th International Conference on Control, Automation, Robotics, and Vision (ICARV)*, Singapore, December 2006.
- C164 G. Arslan and J.S. Shamma, "Anticipatory learning for general evolutionary games", *45th IEEE Conference on Decision and Control*, San Diego, CA, USA, December 2006.
- C165 G. Arslan and J.S. Shamma, "Distributed vehicle-target assignment using learning in games", *45th IEEE Conference on Decision and Control*, San Diego, CA, USA, December 2006.
- C166 R. Olfati-Saber and J.S. Shamma, "Consensus filters for sensor networks and distributed sensor fusion", *44th IEEE Conference on Decision and Control*, Seville, Spain, December 2005.
- C167 J. Marden, G. Arslan, and J.S. Shamma, "Joint strategy fictitious play with inertia for potential games", *44th IEEE Conference on Decision and Control*, Seville, Spain, December 2005.
- C168 G. Chasparis and J.S. Shamma, "Linear-programming-based multi-vehicle path planning with adversaries", *2005 American Control Conference*, Portland, OR, USA, June 2005.
- C169 G. Arslan and J.S. Shamma, "Distributed convergence to Nash equilibria with local utility measurements", *43rd IEEE Conference on Decision and Control*, Paradise Island, The Bahamas, December 2004.
- C170 J.S. Shamma and G. Arslan, "A feedback stabilization approach to fictitious play", *42nd IEEE Conference on Decision and Control*, Maui, HI, USA, December 2003.
- C171 G. Arslan, J. Wolfe, J.S. Shamma, and J.L. Speyer, "Optimal planning for autonomous air vehicle battle management", *41st IEEE Conference on Decision and Control*, Las Vegas, CA, USA, December 2002.
- C172 M. Ait-Rami, S. Daniel-Berhe, J.S. Shamma, and J.L. Speyer, "Optimization based battle management", *2001 American Control Conference*, Arlington, VA, USA, June 2001.
- C173 M. Krichman, D. Ghose, J.L. Speyer, and J.S. Shamma, "Theater level campaign resource allocation", *2001 American Control Conference*, Arlington, VA, USA, June 2001.
- C174 J.S. Shamma, "A connection between structured uncertainty and decentralized control of spatially invariant systems", *2001 American Control Conference*, Arlington, VA, USA, June 2001.
- C175 J.S. Shamma and J.R. Cloutier, "Existence of SDRE stabilizing feedback", *2001 American Control Conference*, Arlington, VA, USA, June 2001.
- C176 D. Ghose, M. Krichman, J.L. Speyer, and J.S. Shamma, "Game theoretic campaign modeling and analysis", *39th Conference on Decision and Control*, Sydney, Australia, December 2000.
- C177 D. Ghose, J.L. Speyer, and J.S. Shamma, "A game theoretical model for temporal resource allocation in an air campaign", *JFACC Symposium on Advances in Enterprise Control*, Minneapolis, MN, USA, July 2000.
- C178 J.S. Shamma, "Anti-windup via controlled invariance with observers", *1999 American Control Conference*, San Diego, CA, USA, June 1999.
- C179 K.-H. Tu and J.S. Shamma, "Nonlinear gain-scheduled control design using set-valued methods", *1998 American Control Conference*, Philadelphia, PA, USA, June 1998.
- C180 J.S. Shamma and K.-Y. Tu, "Set-Valued Methods for the Output Feedback Control of Systems with Control Saturations", *36th IEEE Conference on Decision and Control*, San Diego, CA, USA, December 1997.

- C181 J.S. Shamma and K.-Y. Tu, "Set-Valued State Observers for Nonlinear Systems", *5th IEEE Mediterranean Conference on Control and Systems*, Paphos, Cyprus, July 1997.
- C182 C.-H. Hsu and J.S. Shamma, "Receding horizon control for manufacturing systems", *Proceedings of the 1997 American Control Conference*, Albuquerque, NM, USA, June 1997.
- C183 J.S. Shamma and K.-Y. Tu, "Set-valued estimation for nonlinear systems", *1997 American Control Conference*, Tuscon, AR, USA, June 1997.
- C184 J.S. Shamma and D. Xiong, "Control of Rate Constrained Linear Parameter Varying Systems," *34th IEEE Conference on Decision and Control*, New Orleans, LA, USA, December 1995.
- C185 J.S. Shamma and E. Tu, "Optimality of Set-Valued Observers for Linear Systems," *34th IEEE Conference on Decision and Control*, New Orleans, LA, USA, December 1995.
- C186 J.S. Shamma and E. Tu, "Guaranteed State Estimation for Linear Time-Varying Systems," *3rd IEEE Mediterranean Symposium on New Directions in Control and Automation*, Limassol, Cyprus, July 1995.
- C187 J.S. Shamma, "Construction of Nonlinear Feedback for ℓ^1 -Optimal Control," *33rd IEEE Conference on Decision and Control*, Lake Buena Vista, FL, USA, December 1994.
- C188 J.S. Shamma, "A Connection between Viability Theory and ℓ^1 -Optimal Control," *32nd IEEE Conference on Decision and Control*, San Antonio, TX, USA, December 1993.
- C189 J.S. Shamma, "Robustness Analysis for Time-Varying Systems," *Proceedings of the 31st IEEE Conference on Decision and Control*, Tucson, AZ, USA, December 1992.
- C190 J.S. Shamma and J.R. Cloutier, "Trajectory Scheduled Missile Autopilot Design," *1st IEEE Conference on Control Applications*, Dayton, OH, USA, September 1992.
- C191 J.S. Shamma, " ℓ^1 Optimal Control with Nonlinear Full State Feedback," *IEEE Mediterranean Symposium on New Directions in Control Theory and Applications*, Chania, Crete, June 1992.
- C192 J.S. Shamma and J.R. Cloutier, "A Linear Parameter Varying Approach to Gain Scheduled Missile Autopilot Design," *1992 American Control Conference*, Chicago, IL, USA, June 1992.
- C193 J.S. Shamma, "A Push/Pop Phenomenon for Nonlinear Systems," *30th IEEE Conference on Decision and Control*, Brighton, UK, December 1991.
- C194 J.S. Shamma and R. Zhao, "Fading Memory and Necessity of the Small Gain Theorem," *30th IEEE Conference on Decision and Control*, Brighton, UK, December 1991.
- C195 J.S. Shamma, "Robustness Analysis of Nonlinear Systems," *29th Annual Allerton Conference on Communication, Control, and Computing*, Monticello, IL, USA, October 1991.
- C196 J.S. Shamma and M. Athans, "Gain Scheduling: Possible Hazards and Potential Remedies," *1991 American Control Conference*, Boston, MA, USA, June 1991.
- C197 K. Poolla and J.S. Shamma, "Asymptotic Performance through Adaptive Robust Control," *29th IEEE Conference on Decision and Control*, Honolulu, HI, USA, December 1990.
- C198 K. Poolla, J.S. Shamma, and K.A. Wise, "Linear and Nonlinear Controllers for Robust Stabilization Problems: A Survey," *11th IFAC World Congress*, Tallinn, Estonia, USSR, August 1990.
- C199 J.S. Shamma and M. Dahleh, "Time-Varying vs. Time-Invariant Compensation for Feedback Systems with Persistent Bounded Disturbances," *Proceedings of the 28th IEEE Conference on Decision and Control*, Tampa, FL, USA, December 1989.
- C200 J.S. Shamma and M. Athans, "Analysis of Linear Parameter Varying Gain Scheduled Control Systems," *IFAC Symposium on Nonlinear Control Systems Design*, Capri, Italy, June 1989.
- C201 J.S. Shamma and M. Athans, "Guaranteed Properties for Nonlinear Gain Scheduled Control Systems," *27th IEEE Conference on Decision and Control*, Austin, TX, USA, December 1988.
- C202 J.S. Shamma and M. Athans, "Stability and Robustness of Slowly Time-Varying Linear Systems," *26th IEEE Conference on Decision and Control*, Los Angeles, CA, USA, December 1987.

Short Courses

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| 2018 | International Graduate School on Control (IGSC-2018), Université Paris Saclay, France. |
| 2017 | Summer School on Cyber-Physical Systems, Halmstad University, Sweden. |
| 2015 | 1st Artificial Intelligence Summer School, American University of Beirut, Lebanon. |
| 2009 | 5th Northeast Control Workshop, Carnegie Mellon University, USA. |
| 2006 | Identification and control of linear parameter varying (LPV) systems, Dutch Institute for Systems and Control (DISC), The Netherlands. |

Workshop Lectures

- 2017 Workshop on “Adaptive Learning”, International Game Theory Conference, Stony Brook University, USA.
- 2015 Workshop on “Human-Machine Networks and Distributed Autonomy”, IEEE Conference on Decision and Control, Osaka, Japan.
- 2015 Workshop on “Decision Support for Traffic”, Institute for Pure and Applied Mathematics (IPAM), Los Angeles, CA, USA.
- 2015 Workshop on “Analysis and Control of Network Dynamics”, Institute for Mathematics and Its Applications (IMA), Minneapolis, MN, USA.
- 2015 Summer School on “Games and Contracts for Cyber-Physical Security”, Institute for Pure and Applied Mathematics (IPAM), Los Angeles, CA, USA.
- 2015 Workshop on “Advances in the Social Sciences: A Conference in Honor of Peyton Young”, University of Oxford, UK.
- 2015 Workshop on “Paradigms for Control in Social Systems”, International Conference on Computational Science, Reykjavik, Iceland.
- 2014 Workshop on “Robustness in Identification, Control, and Beyond”, Sienna, Italy.
- 2013 Fifth CSL Symposium on Emerging Topics in Control and Modeling: Social and Economic Behavior, University of Illinois Urbana-Champaign, USA.
- 2013 Summer School on Multi-Agent Networked Systems, University of Illinois Urbana-Champaign, USA.
- 2010 Workshop on Frontiers of Controls, Games, and Network Science, University of Texas at Austin, USA.
- 2010 Workshop on Distributed Decisions via Games and Price Mechanisms, Lund University, Sweden.
- 2010 ARO Workshop on Reasoning in Adversarial and Noncooperative Environments, Duke University, USA.
- 2009 AFOSR Workshop on Adversarial and Stochastic Elements in Autonomous Systems, Arlington, USA.
- 2009 First Lund Center for Control of Complex Engineering Systems Workshop, Lund University, Sweden.
- 2009 LIDS Paths Ahead Symposium, Massachusetts Institute of Technology, USA.
- 2008 Workshop on Dynamics in Microeconomics and Game Theory, California Institute of Technology, USA.
- 2008 AFOSR Workshop on Mathematical Modeling of Socio-Cultural Processes, Santa Barbara, CA, USA.
- 2008 Workshop on Frontiers in Game Theory and Networked Control Systems, Massachusetts Institute of Technology, USA.
- 2007 AFOSR Future Science in Socio-Cultural Prediction Workshop, Arlington, TX, USA.
- 2006 Workshop on Learning and Information in Games and Control, California Institute of Technology, USA.
- 2005 Workshop on Integrated Control, Estimation and Communication, California Institute of Technology, USA.
- 2002 Workshop on Large-Scale Engineering Networks, Institute for Pure and Applied Mathematics (IPAM), Los Angeles, CA, USA.
- 1999 Sanjoy K. Mitter Honorary Symposium, Massachusetts Institute of Technology, USA.
- 1998 CDC Special Workshop to Honor Michael Athans, Tampa, FL, USA.
- 1996 Workshop on ℓ_1 Methods in Robust Control Design, University of California Santa Barbara, USA.
- 1995 Workshop on Control Using Logic Based Switching, Block Island, RI, USA.
- 1993 Hughes Advanced Control Applications Workshop, El Segundo, CA, USA.
- 1993 Workshop on Robust Controller Designs and Differential Games, University of California Santa Barbara, USA.
- 1992 Workshop on Control Systems Design for Advanced Engineering Systems, Institute for Mathematics and its Applications (IMA), Minneapolis, MN, USA.
- 1991 Workshop for Nonlinear Control of Articulated Flexible Structures, University of California Santa Barbara, USA.

Invited Lectures

- 2016 ETH-Zurich; Texas A&M Qatar; King Abdulaziz University.
- 2015 University of California San Diego; King Fahd University of Petroleum and Minerals (KFUPM); Harvard University.
- 2014 Cornell University; University of Montreal; Boston University.
- 2013 University of California Santa Barbara; Northwestern University (Northwestern Institute on Complex Systems); University of Colorado, Boulder; University of California Berkeley.
- 2012 Kyoto University.
- 2011 University of California Santa Barbara; School of Industrial and Systems Engineering, Georgia Tech; University of California Irvine; School of Computer Science, Georgia Tech.
- 2010 iCME Colloquium, Stanford University; United Technologies Research Center, Hartford, CT.
- 2009 University of Illinois, Urbana-Champaign; University of Pennsylvania.

2006	ETH-Zurich; University of Michigan. Georgia Institute of Technology; University of Wisconsin (Department of Economics);
2005	California Institute of Technology (Department of Economics); University of Southern California; Massachusetts Institute of Technology; ETH-Zurich.
2004	University of California Santa Barbara; Northwestern University; Stanford University; University of California Berkeley; Massachusetts Institute of Technology; Boston University; University of California San Diego; University of Illinois Urbana-Champaign; University of Pennsylvania; University of Maryland; University of Washington; Princeton University.
2003	University of California Riverside.
1998	Georgia Institute of Technology; Arizona State University.
1997	University of California Los Angeles; University of Texas, Dallas; Stanford University.
1996	Massachusetts Institute of Technology.
1995	ETH-Zurich; Iowa State University; University of Illinois Urbana-Champaign; Ford Motor Company.
1994	Lockheed, Fort Worth, TX; California Institute of Technology; University of Illinois, Urbana-Champaign; Massachusetts Institute of Technology; Bell Helicopter Textron, Fort Worth, TX; University of Minnesota; Princeton University.
1992	University of California Santa Barbara; Rice University.
1991	University of Illinois Urbana-Champaign; California Institute of Technology; Honeywell Systems Research Center, Minneapolis, MN.
1990	Honeywell Systems Research Center, Minneapolis, MN; McGill University.
1989	Scuola Normale Superior, Pisa, Italy; University of Illinois Urbana-Champaign.

PhD Thesis Advisees

2020 (expected)	Tarek Mahmoud.
2020 (expected)	Fadl Abdullatif.
2019 (expected)	Mohammed Alrashed.
2018 (expected)	Mohammad Algarni.
2018 (expected)	Mohamed Abdelkader.
2018 (expected)	Mohammad Shaqura.
2018 (expected)	Enas Odat.
2017	Farhan Aziz (co-advised). <i>Resilience of LTE Networks Against Smart Jamming Attacks: A Game Theoretic Approach.</i>
2016	Daniel Pickem (co-advised). <i>Self-Reconfigurable Multi-Robot Systems.</i>
2016	Steven Ehrlich (co-advised). <i>Algorithmic, Game Theoretic and Learning Theoretic Aspects of Distributed Optimization.</i>
2014	Ahmet Yazicioglu (co-advised). <i>Decentralized Graph Processes for Robust Multi-Agent Networks.</i>
2014	Yusun Lim. <i>Game Theoretic Distributed Coordination: Drifting Environments and Constrained Communications.</i>
2014	Nicholas Dudebout. <i>Empirical-evidence Equilibria in Stochastic Games.</i>
2013	Malachi Jones. <i>Asymmetric Information Games and Cyber Security.</i>
2012	Michael J. Fox. <i>Distributed Learning in Large Populations.</i>
2008	George Chasparis. <i>Distributed Learning and Efficient Outcomes in Uncertain and Dynamic Environments.</i>
2008	Ahmad Fattahi (co-advised). <i>Resource Management in Communication Networks from a Microeconomic Perspective.</i>
2007	Jason Marden. <i>Learning in Large Scale Games and Cooperative Control.</i>
2007	Ibrahim Al-Shyoukh. <i>Online-Information-Based Learning and Decision Making Under Uncertainty</i>
2006	Vincent Seah. <i>Because We Are Ego-centric.</i>
1998	Lance Carter. <i>Linear Parameter Varying Representations for Nonlinear Control Design.</i>
1998	Chi-Hua Hsu. <i>Dynamic Scheduling of Manufacturing Systems.</i>
1998	Pang Chen. <i>Applications of Gain Scheduled Control in Power Systems and V/STOL Aircraft.</i>
1998	Dapeng Xiong. <i>Stability Analysis and Controller Synthesis of Linear Parameter Varying Systems.</i>
1997	Kuan-Hsuang Tu. <i>Analysis and Design of Nonlinear Gain-Scheduled Control Systems.</i>
1997	Kuan-Yang Tu. <i>Set Valued Methods for Estimation.</i>

Master's Thesis Advisees

2019 (expected)	Fat-Hy Rajab.
2019 (expected)	Khalid Alzuhair.

2018 (expected)	Alfiya Kulmukhanova.
2018 (expected)	Haya Alsharif.
2018 (expected)	Yimeng Lu.
2017	Noureddine Toumi. <i>Decentralized Control of Multi-Agent Aerial Transportation Systems.</i>
2017	Usman Fiaz. <i>Passive Magnetic Latching Mechanisms for Robotic Applications.</i>
2016	Mohammed Alrashed. <i>Agent Based Modeling and Simulation of Pedestrian Crowds in Panic Situations.</i>
2016	Gilberto Mendoza Chavez. <i>Autonomous Landing on Moving Platforms.</i>
2016	Keith Paarporn. <i>Dynamics of Epidemic Spreading over Networks with Agent Awareness.</i>
2011	Yusun Lim. <i>Potential Game Based Cooperative Control in Dynamic Environments.</i>
2010	Michael J. Fox. <i>Stochastic Self Assembly.</i>
2009	Malachi Jones. <i>Design and Implementation of a Multi-agent Systems Laboratory.</i>
2003	George Chasparis. <i>Linear-Programming-Based Multi-Vehicle Path Planning with Adversaries.</i>
2003	Jason Marden. <i>Coordination of Multiple Agents Using Neuro-Dynamic Programming.</i>
2002	Vincent Seah. <i>Decomposition Based Control of Failure Prone Production Lines.</i>
1995	Tsuyoshi Kawahito. <i>Experimental Control Laboratory Development.</i>
1994	Elvin Chan. <i>Representation of Fading Memory Nonlinear Systems.</i>
1992	Weizhong Lu. <i>Adaptive Robust Control of a Flexible Beam with Asymptotic Robust Performance.</i>
1991	Paul Middleton. <i>Optimal Rejection of Persistent Bounded Disturbances for Underdamped Structures.</i>

Postdoctoral and Research Fellow Advisees

2016–	Samet Guler
2015–	Doha Raik
2015–	Hassan Jaleel
2015–2017	Mohamed Mabrok
2014–2017	Jiming Jiang
2015–2016	Ceyhun Eskin
2015–2016	Chadia Zayane
2013–2016	Lichun Li
2013–2015	Kwang-Ki Kim
2008–2014	Georgios Kotsalis
2013–2014	Behrouz Touri
2013–2013	Tansel Yucelen
2012–2014	Ibrahim Al-Shyoukh
2010–2014	Georgios Piliouras
2009–2011	Florin Constantin
2008–2011	Ola Ayaso
2008–2010	George Chasparis
2004–2005	Reza Olfati-Saber
2001–2004	Gurdal Arslan
2001–2003	Jonathan Wolfe
1999–2001	Debasish Ghose
1999–2001	Mikhail Krichman
1999–2001	Mustafa Ait-Rami
1999–2001	Square Daniel-Berhe

Undergraduate Research Advisees

2017–2017	Rawan Ahmed, Norah Al Ghamdi, Saja AlHarbi, Hajr Aljehani, Senior Design Project Team
2017	Nora Elghamdi, Summer Undergraduate Research
2017	Abdullah Alhashim, Summer Undergraduate Research
2017	Mohammad Albeaik, Summer Undergraduate Research
2016–2017	Reem Masoud & Anwaar Alghamdi, Senior Design Project Team
2016–2017	Elaf Al-Harbi, Rouiah Bakhsh, Tala Sallam, Senior Design Project Team
2016	Haya Alsharif, Summer Undergraduate Research
2016	Muhammad Almugren, Summer Undergraduate Research
2015	Amjad Felemban, Summer Undergraduate Research
2015	Saud Alsaif, Summer Undergraduate Research
2015	Raghdah Madani, Summer Undergraduate Research

2013–2014	Aidan Dowdle, Undergraduate Research
2013	Disha Sharma, Georgia Tech SURE Program
2013	William Hoffman, Undergraduate Research
2013	Alexey Zarnitsyn, Undergraduate Research
2012	Kasim Alli, Georgia Tech SURE Program
2010	Joshua Hale, Georgia Tech SURE Program
2008	Jenelle Love, Undergraduate Research
2006 & 2007	Li Na, Zhejiang University-UCLA Summer Research Program
2006	Pedram Vaghefinazari, UCLA, Undergraduate Research
2005	Dai Songwei, Zhejiang University-UCLA Summer Research Program

External PhD Committee Member/Examiner

2016–	Yara Rizk, <i>American University in Beirut</i> .
2017	Brian Swenson, <i>Carnegie Mellon University</i> .
2015	Arastoo Fazeli, <i>University of Pennsylvania</i> .
2015	Ceyhun Eksin, <i>University of Pennsylvania</i> .
2014	Farhad Farokhi, <i>KTH Royal Institute of Technology</i> . PhD opponent.
2012	Farhad Farokhi, <i>KTH Royal Institute of Technology</i> . Licentiate thesis examiner.
2005	Sommer Gentry, <i>Massachusetts Institute of Technology</i> .
2004	William Dunbar, <i>California Institute of Technology</i> .

Teaching

KAUST	Dynamic Programming and Reinforcement Learning (<i>new course</i>), Game Theory and Multiagent Systems (<i>new course</i>), Linear Systems.
Georgia Tech	Circuit Analysis, Game Theory and Multiagent Systems (<i>new course</i>).
UCLA	Control Systems, Dynamic Programming (<i>new course</i>), Mathematics of Engineering, Nonlinear Dynamic Systems, Probability and Reliability, Digital Control Systems.
University of Texas	Signals and Systems, Linear Systems Theory (<i>revised content</i>), Multivariable Control Design (<i>new course</i>), Feedback and Optimal Performance (<i>new course</i>), Introduction to Convex Analysis and Optimization (<i>new course</i>), Flight Control Systems.
U of Minnesota	Linear Circuits II, System Design, Computer Aided Design of Multivariable Control Systems (<i>revised content</i>), Analysis of Time-Varying and Nonlinear Feedback Systems (<i>new course</i>), Control Systems, Nonlinear Control Design (<i>new course</i>).

Academic Service

2016–	Academic Council (university level), KAUST.
2016–	Promotions and Appointments Committee (university level), KAUST.
2015–	Program Chair, Electrical Engineering, KAUST.
2014–	Faculty Recruitment Committee, KAUST.
2015	Faculty Working Group on Student Professional Development, KAUST.
2014–2015	Admissions Committee, KAUST.
2014 & 2015	Academic Excellence Awards Committee, KAUST.
2013–2014	Graduate Committee, ECE Department, Georgia Tech.
2011–2013	Chair, Hightower Chair Search Committee, Georgia Tech.
2008–2013	Faculty Recruitment Committee, ECE Department, Georgia Tech.
2010–2011	College of Engineering Dean Search Committee, Georgia Tech.
2010	Chair, Promotion Internal Review Committee, ECE Department, Georgia Tech.
2009	Chair, Promotion Internal Review Committee, ECE Department, Georgia Tech.
2007–2008	Graduate Committee, ECE Department, Georgia Tech.
2006–2007	Chair, Merit Increase Committee (elected), MAE Department, UCLA.
2006–2007	Chair, Aerospace Faculty Recruitment Committee, MAE Department, UCLA.
2005–2006	Awards and Honors Committee, MAE Department, UCLA.
2005–2006	Space Allocation Committee, MAE Department, UCLA.
2004–2005	Chair, Awards and Honors Committee, MAE Department, UCLA.
2004–2005	Merit Increase Committee (elected), MAE Department, UCLA.

2003–2004	Faculty Recruitment Committee, MAE Department, UCLA.
2000–2002	Vice Chair of Graduate Affairs, MAE Department, UCLA.
1999–2000	Courses and Curriculum Committee, MAE Department, UCLA.

Professional Activities and Service

Scientific Boards

2015	External Advisory Board, Department of Electrical Engineering, Umm Al-Qura University.
2008–2011	Air Force Scientific Advisory Board (AFSAB).
2004	Research Advisory Board, University of Florida Graduate Engineering and Research Center.

Editorial Boards: Journals

2016–present	Deputy Editor-in-Chief, <i>IEEE Transactions on Control of Network Systems</i> .
2012–2017	Associate Editor, <i>Games</i> .
2013–2016	Senior Editor, <i>IEEE Transactions on Control of Network Systems</i> .
2009–2015	Associate Editor, <i>IEEE Transactions on Cybernetics</i> (formerly <i>Systems, Man, & Cybernetics Part B</i>).
2002	Special Issue Guest Editor, “Gain Scheduling”, <i>International Journal of Nonlinear and Robust Control</i> .
1995–2003	Associate Editor, <i>Systems & Control Letters</i> .
1994–1996	Associate Editor, <i>IEEE Transactions on Automatic Control</i> .

Editorial Boards: Conferences

2014	Program Committee, “Med ’14: 22nd Mediterranean Conference on Control & Automation”, Palermo, Italy.
2014	International Advisory Committee, “ACODS 2014: 3rd International Conference on Advances in Control and Optimization of Dynamical Systems”, Kanpur, India.
2012	Program Committee, “Necsys 2012: 3rd IFAC Workshop on Distributed Estimation and Control in Networked Systems”, Santa Barbara, CA, USA.
2011	International Advisory Committee, “ACODS 2012: 2nd International Conference on Advances in Control and Optimization of Dynamical Systems”, Bangalore, India.
2011	Program Committee, “GameSec 2011: Conference on Decision and Game Theory for Security”, College Park, MD, USA.
2010–2011	Program Committee, “International Conference on Game Theory for Networks (GameNets)”, Shanghai, China.
2009–2010	Scientific Committee, “Thematic program of Spring 2010: Distributed Decision-Making and Control”, LCCC Lund Center for Control of Complex Engineering Systems, Lund University, Sweden.
2010	Scientific Committee, “2nd International Conference on the Dynamics of Information Systems”, Destin, FL, USA.
2010	Scientific Committee, “SING6: Spain-Italy-Netherlands Meetings on Game Theory”, Palermo, Italy.
2009	Program Committee, “1st IFAC Workshop on Estimation and Control of Networked Systems (NecSys’09)”, Venice, Italy.
2009	Program Committee, “GameNets 2009: International Conference on Game Theory for Networks”, Istanbul, Turkey.
2008	Program Committee, “GameComm 2008: The Second International Workshop on Game Theory in Communication Networks”, Athens, Greece.
2006	Program Committee, <i>International Conference on Advances in Control and Optimization of Dynamical Systems (ACODS’2007)</i> , Bangalor, India.
2005	Program Committee, <i>Workshop on Modeling and Control of Complex Systems</i> , Ayia Napa, Cyprus.
2001	Program Committee, <i>10th Mediterranean Conference on Control and Automation, MED2002</i> .
1999	Program Committee, <i>Sanjoy K. Mitter Honorary Symposium</i> , Cambridge, MA, USA.
1999	Program Committee, <i>2000 American Automatic Control Conference</i> , Chicago, IL, USA.
1994	Conference Editorial Board, <i>33rd IEEE Conference on Decision and Control</i> , Lake Buena Vista, FL, USA.
1992	Conference Editorial Board, <i>31st IEEE Conference on Decision and Control</i> , Tucson, AZ, USA.

Workshop Organization

2017	Co-organizer, “KAUST-NSF Conference on Environmental Monitoring”, KAUST, Thuwal, KSA.
2015	Co-organizer, “Human-Machine Networks and Distributed Autonomy”, IEEE Conference on Decision and Control, Osaka, Japan.

- 2015 Co-organizer, “Human-Machine Networks and Intelligent Infrastructure”, KAUST, Thuwal, KSA.
- 2012 Co-organizer, “Symposium on Emerging Topics in Interconnected Systems”, MIT, Cambridge, MA, USA.
- 2008 Co-organizer, “Workshop on Frontiers in Game Theory and Networked Control Systems”, MIT, Cambridge, MA, USA.

Award Committees and Review Panels (dates withheld)

- Donald P. Eckman Award Committee, American Automatic Control Council. (1×Chair & 5×Member)
- John R. Ragazzini Award Committee, American Automatic Control Council. (2×Member)
- NSF Review Panel. (4×Member)
- O. Hugo Schuck Best Paper Award Committee, American Automatic Control Council. (1×Chair)

Panelist/Briefer

- 2010 JASONs Meeting on the Science of Cyber Security, San Diego, CA.
- 2009 “Forward Looking Panel”, 2009 SIAM Conference on Control and Its Applications.
- 2008 Strategy Planning Workshop for the Information Sciences Division at ARO, Chapel Hill, NC.
- 2007 “Future Directions in Cooperative Control”, *7th International Conference on Cooperative Control and Optimization*, Gainesville, FL.
- 2004 National Academies Workshop on Issues of Technology Development for Human and Robotic Exploration and Development of Space.

Other Activities

- 2009 Coauthor, AFOSR Report on Workshop on Mathematical Modeling of Socio-Cultural Processes, July 2009.
- 1996–1998 Southwest Regional Coordinator, Sigma Gamma Tau Aerospace Honor Society.