

Curriculum Vitae

SOURA DASGUPTA

F. Wendell Miller University of Iowa Foundation
Distinguished Professor,
Department of Electrical and Computer Engineering
The University of Iowa, Iowa City, IA 52242, USA.
Office Phone: +319-335-5200
Office Fax: +319-335-6028
e-mail: dasgupta@engineering.uiowa.edu

Home Address

1724 Timber Hills Drive
Coralville, IA 52241, USA.
Home Phone: +319-354-7460

EDUCATION

Ph.D.

Systems Engineering
Australian National University
September 1985
Thesis: Adaptive Control and Identification
Supervisor: Professor B. D. O. Anderson

B.E.

Electrical Engineering (Hons. I)
University of Queensland
December 1980
Thesis: Convergence of Partitioned Adaptive Filters
Supervisor: Dr. L.C. Westphal

ACADEMIC POSITIONS

The University of Iowa	F. Wendell Miller Distinguished Professor	2020-present
The University of Iowa	Deans Diamond Professor	1997-2002
The University of Iowa	Professor	1994-present
The University of Iowa	Associate Professor	1990-94
The University of Iowa	Assistant Professor	1989-90
The University of Iowa	Visiting Assistant Professor	1985-89
Notre Dame University	Visiting Instructor	1984-85
Universite Catholique, Belgium,	Visiting Assistant Professor	5/89-10/89, 5/90
Australian National University	Visiting Fellow	6/90, 1/94-6/94
Australian National University	Visitor	6/06, 7-8/09
Tata Consultancy Services, India	Visitor	5/08-6/08
NICTA, Canberra Node, Australia	Vistor	7/08-8/08

NICTA, Sydney Node, Australia Vistor
Shandong Academy of Vistor
Sciences, China

5/10-6/10, 7/11-8/11
16-21

CURRENT AREAS OF RESEARCH INTEREST

Nonlinear, adaptive and multiagent control, Distributed Wireless Networks, Signal Processing for Wireless Communications, Machine Learning, Compressed sensing for MRI, Edge and Aggregate Computing, Cyberphysical Systems, Parkinson's Disease.

Memberships of Professional Society

Fellow of IEEE, 1998. Awarded for contributions to parameter robustness analysis and adaptive parameter estimation.

Awards and Honors

Presidential Faculty Fellow, 1993-1999¹

Gullimen Cauer Best Paper Award for the IEEE Transactions on Circuits and Systems, 1992.

Collegiate Teaching Award, 2012.

Selected by the Graduating Class of December 2012, for excellence in teaching and dedication to student success.

Delivered commencement address, December 2012.

Thousand Talent Scholarship, China 2016-2018.

Selected by class of graduating Electrical Engineering seniors at University of Iowa, to deliver Commencement address, 1991.²

Best Session Presentation Award, Joint Automatic Control Conference, 1989.

GE Prize for best 2nd year Electrical Engineering Student, in the University of Queensland.

Cable Makers Australia Award for the best undergraduate thesis.

The Julius Knittschett Mineral Research Centre Scholarship, 1981. Declined.

Maude Walker Scholarship for the intending Elect. Engr. Graduate Student, best suited for such studies. Withdrawn as I left Queensland.

Sir Thomas Mcillwraith Scholarship, 1979.

National Science Talent Search Scholarship, India, 1975. Declined.

Keynote Addresses, Tutorials and Panels in Workshops/Conferences

1. Panel discussion on "the most important issues in adaptive signal processing" 1987, Midwest Conference on Circuits and Systems.
2. "Stability analysis via Passivity analysis", US- Russia Workshop on Robust Control, Keynote talk, Madison, WI, November, 1995. Organizers met full expenses,
3. "A Glimpse of Multirate Signal Processing", 7/97, Semi-Plenary Talk, European Control Conference, Brussels. Organizers met full expenses,
4. "Multirate Systems and Robust Control", 7/99, IFAC Workshop on New directions in Uncertain Systems, Hong Kong.

¹Awarded to 15 Engineers and 15 Scientists in early part of their careers. Precursor to PECASE.

²Students of each of the six departments select a faculty member from their department once every six years.

5. Panel discussion on “New Directions in Robust Control”, 7/99, IFAC Workshop on New directions in Uncertain Systems, Hong Kong.
6. “Robust Equalization of Nonlinear Channels”, 12/00, Workshop on Robust Control, Newcastle, Australia.
7. Keynote talk in Conference on Signal and Image Processing, “Distributed Beam and Nullforming for Distributed MIMO”, Beijing, China, July 2013.
8. Tutorial in IEEE International Conference on Advances in Computing, Communications and Informatics, “Distributed Beam and Nullforming for Distributed MIMO”, Mysore, India, August 2013.
9. Keynote talk in IEEE International Conference on Advances in Computing, Communications and Informatics, “Distributed MIMO: Realizing the Full MIMO Potential”, Noida, India, September 2014.
10. Tutorial in Indian Control Conference, “Control of multi-agent systems: Theory, architecture and applications”, Chennai, India, January 2015.

Professional Activities

Guest Associate Editor, *Frontiers of Neurology*, 2023. Member, Program Committee of 34th International Conference on Scientific and Statistical Database Management, 2022. Member, Program Committee of ACSOS, 2021-2023

Member, Program Committee of ICINCO, 2023

Co-Chair, 4th Workshop on Engineering Collective Adaptive Systems (eCAS), 2019, Umea, Sweden.

Member, International Program Committee of the Indian Controls Conference, 2014-present.

Member, NSF panel 2021.

Member, NSF panel 2021.

Member NSF panel, 2017.

Member NSF Panel, 2016.

Member NSF panel, 2015.

Consultant Lightwaves systems, 2003.

Guest Editor, Special Issue commemorating B. D. O. Anderson’s 70th birthday, *Communications in Information and Systems*.

Member editorial board, *Journal on Wireless Conference and Networking*, December 2012 to present.

Subject editor, *International Journal of Adaptive Control and Signal Processing*, December 2006 to 2012.

Member CDC student author prize committee, 2014.

Member CDC student author prize committee, 2012.

Member NSF panel, 2017.

Member NSF Panel, 2016.

Member NSF Panel, 2015.

Member NSF Panel, 2014.

Member NSF r Panel, 2012.

Member NSF Panel, 2008.

Member Program Committee, 2006 CDC.

Member editorial board of joint ECC/CDC 2005
 Member Program Committee, SICE Annual Conference, 2004.
 Member of Editorial Board, EURASIP Journal on Wireless Communications and Networking, 2004 to present.
 Associate Editor, IEEE Control Systems Society, Conference Editorial Board, 1997 to 2007.
 Associate Editor, IEEE Transactions on Circuits and Systems II, January 2004 to December 2006.
 Associate Editor, IEEE Transactions on Automatic Control, January 1989 to December 1991.
 Member, IEEE Control Systems Society Technical Committee on System Identification 2008-2012.
 Member NSF Panel, 2007.
 Member NSF, Panel, Career Panel, 2006.
 Member NSF, Panel 2005.
 Member NSF, Panel 2005.
 Member NSF, Panel, 2004.
 Member NSF Panel, 2007.
 Member program committee for the IFAC workshop on Periodic Control Systems, 2001, Como Italy.
 Member NSF, Panel, 2000.
 Member NSF, Small Business Innovative Research Panel, 1999.
 Member NSF Panel, 1999.
 Member NSF Panel, 1999.
 Member NSF Graduate Fellowships minority panel, 1997.
 Member International Program Committee the European Control Conference, 1997, Brussels, Belgium.
 Member Eckman Award Committee, 1996.
 Member NSF Instrumentation and Laboratory Systems Panel, 1995.
 Member NSF Small Business Innovative Research Panel, 1992.
 Member Young Author Prize Panel, for IFAC World Congress 1993.
 Member program committee 1993 IEEE Conference on Decisions and Controls (CDC).
 Assisted editorially for the 1987, 1988 CDC and 1988 Joint American Control Conference (JACC).
 Member Steering Committee of San Antonio Workshop on Robust Control, 1992.
 Member program committee 1990 CDC.
 Organized several invited sessions in multiple conferences.

Research Grants

1. NSF, Convergence and Robustness studies of Sign-Sign Adaptive Identifiers, 6/87-12/89, \$60,000.
2. University of Iowa, Modeling of Eucaryotic Cells, \$22,000, 1990, with R.J. Deschenes.
3. NSF, Design of Robust adaptive IIR Filters”, 5/90-11/92, \$104,157.
4. Matching Equipment Funds from the University of Iowa, against item 3, 1990.
5. Rockwell International, A study of Digital FM Detectors, \$20,000, 9/90-5/91.
6. University of Iowa, Old Gold Fellowship, 1991, \$3,500.
7. NSF, Robust design issues in communications signal processing and control, 9/92- 2/95 \$101,800.

8. NSF, Presidential Faculty Fellowship, \$500,000, 10/93- 1/00.
9. University of Iowa, Matching Equipment Funds, \$18000, 1993.
10. ARPA, Mixed Signal Circuit Testing, \$780,000, with C.J. Shi 12/95-12/98.
11. Rockwell International, Radio Link Bandwidth Efficient Waveform Investigation, \$29,900, 1/96-11/96, with M.S. Andersland.
12. Rockwell International, Bandwidth Efficient Waveform Investigation, \$29,900, 9/97-9/98, with M.S. Andersland.
13. NSF, Wavelet Packet Based Design of Efficient High Speed Digital Controllers, \$209,999, 9/99-8/03.
14. NSF, Fractionally Spaced Equalization of Nonlinear Channels, \$158,600, 9/99-8/03.
15. ARO, Optimum Subband Coding of Cyclostationary Signals, \$198,000, 10/00-6/03.
16. NSF, Objective-oriented Mobile Heterogeneous Sensor Networks for Coordinated Control, \$90,000, 10/02-9/06 with J.G. Kuhl.
17. ARO, Digital Human Virtual Reality for Future Combat Systems, \$188,000, 10/03-9/04
18. Lightwave Systems, Investigation of a new wireline communications system, \$240,000, 2/04-1/06, with E. W. Bai.
19. Lightwave Systems, Investigation of a new wireline communications system, \$60,000, 2/06-9/08, with E. W. Bai.
20. NSF, An integrated approach to the coordinated control of mobile autonomous agents, \$240,000, 9/06-8/09, with J. G. Kuhl, my responsibility 80%.
21. NSF, Globally Convergent Localization in Sensor Networks, \$67,131, 9/07-11/10.
22. Lightwave Systems, Investigation of a new wireline communications system, \$180,000, 2/08-9/09, with E. W. Bai.
23. NSF, Collaborative Research: Robust Low Complexity Approaches to Source Localization and Sensor Placement in Wireless Networks, \$220,333, 9/08-8/13 (on no cost extension).
24. DARPA/Raytheon BBN, Precision Electronic Warfare, \$214,500, 5/10-11/11, with R. Mudumbai, 40% responsibility.
25. NSF, Iowa EPSCoR: Harnessing Energy Flows in the Biosphere to Build Sustainable Energy Systems. \$ 20 Million, 10/11-9/16. Part of a large team. Leader of Grid integration plank: Responsibility: \$500,000.
26. Roy J. Carver Charitable Trust, Mussel Communities: A Biosensory Network for Understanding the Nitrogen Cycle, \$397,975 5/11-4/13, 10% responsibility.
27. NSF, CPS: Synergy: A hybrid detector network for nuclear and radioactive threat detection, \$1,000,000, 10/12-9/17, one third responsibility.

28. ONR, Multi-Image Co-prime Sensing: Theory and Applications to Magnetic Resonance Imaging, \$875,000, 1/13-12/17, one third responsibility.
29. NSF, CIF: Medium: Collaborative Research: Distributed coherence: fundamental building blocks, system concepts, and experimental demonstration, \$506,000, 7/1/13-6/30/18, 50% responsibility.
30. DARPA via Raytheon-BBN, Arrays at commercial time scales, \$559,721, 2/17/15-7/31/17, 50% responsibility.
31. DARPA via Raytheon-BBN, Mission-oriented Adaptive Placement of Task and Data (MAP), \$482,000, 4/17-3/21, 100% responsibility.
32. NIH, Mid-frontal delta/theta rhythms and cognitive control in PD, \$ 1,830,116, 10/17-9/22, 25% responsibility.
33. NIH, Timing and dopamine in frontostriatal circuits, \$ 2,423,900, 06/18-03/23, 20% responsibility.
34. DOD, Prefrontal microcircuits and cognitive symptoms of Parkinson's disease, \$1,200,00, 10/01/2021 9/30/2024, 3.6% .
35. NIH, VTA dopamine neurons and cognitive symptoms of Parkinson's disease \$2,938,780, 04/2103/26, 10% responsibility.

Patents

1. Vemulapalli, M., Dasgupta, S., and Pandharipande, A., "Method and System for Optimal Bitloading in Communication and Data Compression Systems", US Patent 7,539,254 B2.
2. Dasgupta, S., Anjum, M. F., Narayanan, N, and Mudumbai, R., "A Method and a System for Diagnosing Parkinsons Disease from Electroencephalography Data", Provisional patent application number 62899915.

Courses Taught

Electrical Science, Linear Systems, Electrical Circuits, Power Systems Analysis, Computer Based Control Systems, Control Theory, Electronic Instrumentation, Advanced Digital Signal Processing, Digital Signal Processing, Theory of Adaptive Systems, Stochastic Control, Statistical Communication Theory, Linear Multivariable Systems, Nonlinear Control Systems, Random Processes in Controls and Communications, Multirate Signal Processing, Optimal Control Theory, Nonlinear Stability Theory, Communications Systems, Communication Theory, Wireless Communication Theory, Optimal Filtering.

Courses Introduced or Revised

Detection and Estimation, Wireless Communication Theory, Linear Systems, Control Theory, Advanced Digital Signal Processing, Theory of Adaptive Systems, Linear Multivariable Systems, Nonlinear Control Systems, Multirate Signal Processing, Optimal Control Theory, Nonlinear Stability Theory, Communication Systems, Advanced Digital Signal Processing, Communication Theory,

Randomness and Information.

Courses in which Laboratory and/or Computer Technology was Introduced

Linear Systems, Control Theory, Computer Based Control Systems, Control Theory Advanced Digital Signal Processing, Theory of Adaptive Systems, Linear Multivariable Systems, Nonlinear Control Systems, Multirate Signal Processing, Optimal Control Theory, Nonlinear Stability Theory, Optimal Filtering.

Graduate Thesis Direction

1. A.S. Bhagwat, "Strictly Positive Real Transfer Functions for Adaptive Output Error Identification," M.S., 5/87.
2. A.C. Orgren, "Adaptive Noise Cancellation with Partial Information," Ph.D., 12/87.
3. G. Krenzer, "Identifiability in Bilinear Systems", M.S., 3/90.
4. J. Deng, "A study of FM Detectors", M.S., 12/91.
5. J.S. Garnett, "A Useful Operator Condition in Signal Processing", Ph. D., 3/92.
6. Y. Shrivastava, "Analysis and Design of Hopfield Neural Networks", Ph. D., 12/92.
7. W. Whikehart, "Adaptive Estimation of Time Varying Systems", M.S., 5/95.
8. G. Chockalingam, "Robust Analysis of Parametric Uncertain Systems", Ph.D., 12/95.
9. J. Cherney, "Robustness of Signed Algorithms", M.S., 12/93.
10. D. Hill, "Feedback Control of Laser Arrays", M.S., 5/95.
11. C. Schwarz, "Linear Time Varying Systems in Digital Signal Processing", Ph. D., 3/98.
12. R. Lopez Valcarce, "Stability of the Time Varying Inverse Predictor", M.S., 5/98.
13. S. Doraiswamy, "Bandwidth Efficient Waveform Transmission", M.S., 7/98.
14. R. Lopez Valcarce, "Blind Equalization and Estimation of Nonlinear Channels", Ph. D., 2000.
15. A. Pandharipande, "Design and analysis of nonuniform filter banks", M.S. 2000.
16. T. Tigrek, "Adaptive Optimal Control of HVAC Systems", M.S. 2001.
17. A. Pandharipande, "Resource Optimization in Subband Coding and Discrete Multitone Transmission", Ph. D. 2002.
18. H. Xu, "Bentpipe feedback approach to wireless channel estimation and compensation", Ph. D. 2003.
19. S. H. Dandach, "Stability of Adaptive Delta Modulators with Constant Inputs", M. S. 2005.
20. X. Song, "Optimum design in multicarrier communications and data compression", Ph. D. 2006.

21. S. Chitte, "Source localization from received signal strength under log-normal shadowing", M.S. 2010.
22. S. Rita Ibeawuchi, "Optimum sensor placement for source localization and monitoring", Ph. D., August 2010.
23. K. Sheth, "Model Predictive Control for Adaptive Digital Human Modeling", M. S., July 2011.
24. R. O. Abel, "The Coordinated Control of Autonomous Agents", Ph. D., December 2011.
25. M. Vemulapalli, "Resource Allocation Problems in Communications and Controls", Ph. D., December 2012.
26. A. Yasmeeen, "A Distributed Algorithm for Optimal Dispatch in Smart Power Grids With Piecewise Linear Cost Functions", M.S. May 2013.
27. H. K. Achanta, "Optimal Sensing Matrices", Ph.D., December 2014.
28. M. Basu, "Optimal Dispatch in Smart Power Grids With Partially Known Deviation", MS., August 2015.
29. H. Baidoo-Williams, "Novel Techniques for Estimation and Tracking of Radioactive Sources", Ph.D., May 2016.
30. A. Kumar, "Scalable Algorithms for Distributed Beam and Nullforming", Ph. D., Decemeber, 2016.
31. B. Lan, "Control of rigid formations with passive nonlinear dynamics", M.S., July 2016.
32. B. Pfeiffer, "Theory and Implementation of Scalable, Retrodirective Arrays", Ph. D., May 2017.
33. S. Goguri, "Optimal Precoder Design for Wireless Communication and Power Transfer from Distributed Arrays", Ph. D., May 2017.
34. Y. Mo, "Stability of Aggregate Computing", Ph. D., December 2019.
35. M. F. Anjum, "Electroencephalography and Local Field Potentials in Parkinson's Disease: Models and Diagnosis", Ph. D., August 2021.
36. H. Zainab, current Ph. D. student.
37. P. May, current M.S. student.

Involvement in Overseas Graduate Thesis

1. Examiner for the Ph.D. thesis of P.V. Musumici, "Optimal Array Filtering for Seismic Inversion", ANU, 1989.
2. Examiner for the Ph.D. thesis of B. Macq, "A Universal Entropy Coder for Transform Video Coding", Universite Catholique de Louvain, 1989.
3. Examiner for the Ph.D. thesis of V. Blondel, "Simultaneous Stabilization of Multiple Plants", Universite Catholique de Louvain, 1992.

4. Examiner for the Ph.D. thesis of J.P. Homer, "Adaptive Echo Cancellation in Telecommunications", ANU, 1994.
5. Examiner for the Ph.D. thesis of M. Karan, "Frequency Tracking and Hidden Markov Models", ANU, 1995.
6. Examiner for the Ph.D. thesis of C. Yu, "Control of formations", ANU, 2008.
7. Examiner for the Ph.D. thesis of A. Kannan, "Flip Ambiguity Mitigation for Robust Wireless Sensor Network Localisation", The University of Sydney, 2010.
8. Examiner for the Ph.D. thesis of J. Qin, "Consensus and Synchronization in Multi-Agent Coordination", ANU, 2013.
9. Examiner for the Ph.D. thesis of M. Zamani, "Modeling Multivariable Time Series Using Regular and Singular Autoregressions", ANU, 2014.
10. Examiner for the Ph.D. thesis of S. A. Motevallian, "A Graph Theoretical Approach to Robust and Efficient Localizability in Wireless Sensor Networks", ANU, 2014.

Administrative Duties at the University of Iowa

1. Member Engineering Faculty Council, 2021-2023.
2. Co-Chair, Electrical and Computer Engineering, Blue Ribbon Panel on the EE curriculum, 2018-2020.
3. Chair, Engineering Faculty Council, 2014-2015.
4. Member, Engineering Faculty Council, 2013-2015.
5. Member of Electrical and Computer Engineering Senior Design Committee, 2014.
6. Member of Electrical and Computer Engineering Undergraduate Committee, 2013.
7. Member, College of Engineering Curriculum Committee, 2010 to 2013.
8. Chair, Electrical and Computer Large Scale Integrated System Position, Recruiting Committee, 2010-present.
9. Chair, Electrical and Computer Engineering Graduate Committee, 1990-1991, 1994 - 1997, 2008-2010.
10. Member of Electrical and Computer Engineering Graduate Committee, 1985-1990, 1991-1994, 2004-2008, 2010-2013.
11. Member of Electrical and Computer Engineering department ad-hoc Strategic Planning Committee, 1989.
12. Member Electrical and Computer Engineering department Self Study Committee 1989-1990.
13. Member, College of Engineering Teaching Committee, 1990-1991.
14. Chair, College of Engineering Teaching Committee, 1991-1992.

15. Member, College of Engineering Placement Committee, 1991-1992.
16. Member, College of Engineering Caywood Awards Committee, 1991-1992.
17. Member, University of Iowa, CIC Multidimensional Excellence Committee.
18. Member, University of Iowa, Ad-Hoc Committee on Statistics Review, 1994.
19. Member, Engineering Faculty Council, 1995-1997.
20. Chair, Engineering Faculty Council, 1997-1998.
21. Member, Electrical and Computer Engineering Strategic Planning Committee, 1995- 1997.
22. Member, College of Engineering Dean's Ad hoc Advisory Group on Promotion and Tenure, 1995-1998.
23. Member, Electrical and Computer Engineering Faculty Recruiting Committee, 1997-1998.
24. Member, University Graduate Council, 1998-2000.
25. Member, University Strategic Planning Committee, 1998-present.
26. Member, College of Engineering Dean's Search Committee, 1999.
27. Chair, Electrical and Computer Engineering, Appropriate Faculty Group on Promotions and Tenure, 1999-2000.
28. Chair, Engineering Faculty Council, 2000-2001.
29. Member, Engineering Faculty Council, 2000-2002.
30. Member, Committee to review the Provost, 2000-2001.
31. Member, Presidential Search Committee, 2002.
32. Member, College of Engineering Dean's Advisory Group on Promotion and Tenure, 2001-2003.
33. Chair, College of Engineering Dean's Advisory Group on Promotion and Tenure, 2001-2002.
34. Member, Electrical and Computer Engineering Graduate Committee, 2001-2012.
35. Chair, Electrical and Computer Engineering, Appropriate Faculty Group on Promotions and Tenure, 2005.
36. Chair, College of Engineering Promotion and Tenure Committee, 2006-2008.

Journal Publications

1. Dasgupta, S. and Westphal, L.C., "Convergence of partitioned adaptive filters for systems with unknown biases," *IEEE Transactions on Automatic Control*, vol. 28, May 1983, pp 614-615.
2. Dasgupta, S., Anderson, B.D.O and R.J. Kaye, "Output error identification methods for partially known systems," *International Journal of Control*, vol. 43, Jan. 1986, pp 177-191.

3. Dasgupta, S., Anderson, B.D.O and Tsoi, A.C., "Exponential convergence of a MRAC scheme with known high frequency gain," *Systems and Control Letters*, vol. 7, Sept. 1986, pp 343-351.
4. Anderson, B.D.O, Dasgupta, S., and Tsoi, A.C., "On the convergence of an MRAC scheme with unknown high frequency gain," *Systems and Control Letters*, April 1985, vol. 5, pp 303-307.
5. Dasgupta, S. and Johnson, C.R. 'Jr., "Some comments on the behaviour of Sign-Sign adaptive identifiers," *Systems and Control Letters*, March 1986, vol. 7, pp 75-82.
6. Dasgupta, S. and Huang, Y.F., "Asymptotically convergent modified RLS with data dependent updating and forgetting factor," *IEEE Transactions on Information Theory*, May 1987, vol. 33, pp. 383-393.
7. Dasgupta, S. and Bhagwat, A.S., "Conditions for designing strictly positive real transfer functions for adaptive output error identification," *IEEE Transactions on Circuits and Systems*, Special issue on adaptive systems, July 1987, vol. 34, pp 731-737.
8. Dasgupta, S. and Anderson, B.D.O, "Physically based parameterizations for designing adaptive algorithms," *Automatica*, July 1987, vol 23, pp 469-477.
9. Dasgupta, S., Anderson, B.D.O and Kaye, R.J., "Identification of physical parameters in structured systems," *Automatica*, March 1988, vol. 24, pp 217-225.
10. Dasgupta, S., "Adaptive identification of systems with polynomial parameterizations," *IEEE Transactions on Circuits and Systems*, May 1988, vol. 35, pp 599-603.
11. Johnson, C.R., Jr., Dasgupta, S. and Sethares, W.A., "Averaging theory for the local stability of the Constant Modulus Algorithm," *IEEE Transactions on Acoustics Speech and Signal Processing*, June 1988, vol. 36, pp 900-911.
12. Dasgupta, S., "Kharitonov's theorem Revisited," *Systems and Control Letters*, November 1988, vol. 11, pp 381-384.
13. Dasgupta, S., Ghosh, A.K. and Cukendall, R.C., "Convergence in neural memories," *IEEE Transactions on Information theory*, September 1989, vol. 35, pp 1069-1072.
14. Rey, G., Johnson, C.R., Jr. and Dasgupta, S., "On tuning leakage for performance robust adaptive control," *IEEE Transactions on Automatic Control*, October 1989, vol. 34, pp 1068-1071.
15. Dasgupta, S., Anderson, B.D.O and Tsoi, A.C., "Input conditions for continuous time adaptive systems problems," *IEEE Transactions on Automatic Control*, January 1990, vol. 35, pp. 78-82.
16. Dasgupta, S., Johnson, C.R., Jr. and Baksho, A.M., "Sign - Sign LMS Convergence with independent Stochastic Inputs," *IEEE Transactions on Information Theory*, vol 36, pp 78-82, January 1990.
17. Bai, E.W. and Dasgupta, S., "Robust control design of sampled systems", *International Journal of Systems Science*, pp 985-992, 1990.

18. Rao, A.K., Huang, Y.F. and Dasgupta, S., "ARMA Parameter Estimation Using a Membership Set Recursive Algorithm," *IEEE Transactions on Acoustics Speech and Signal Processing*, vol 38 pp 447-458, March 1990.
19. Anderson, B.D.O, Dasgupta, S., Khargonekar, P., Kraus, F. and Mansour, M., "Robust strict positive realness: characterization and construction," *IEEE Transactions on Circuits and Systems*, vol 37, pp 869-877, July, 1990.
20. Bai, E.W. and Dasgupta, S., "A note on Generalized Hold functions", *Systems and Control Letters*, vol 14, pp 363-368, 1990.
21. Dasgupta, S., Shrivastava, Y. and Krenzer, G., "Persistent excitation in bilinear systems", *IEEE Transactions on Automatic Control*, vol. 36, pp 305-313, March, 1991.
22. Dasgupta, S., Parker, P.J., Anderson, B.D.O, Kraus, F. and Mansour, M., "Frequency domain conditions for the robust stability of linear and nonlinear dynamical systems," *IEEE Transactions on Circuits and Systems*, vol. 38, pp 389-397, April, 1991.
23. Orgren, A., Dasgupta, S., Rohrs, C.E. and Malik, N.R., "Adaptive noise cancellation with improved residuals," *IEEE Transactions on Signal Processing*, vol. 39, 2029-2039, December, 1991.
24. Anderson, B.D.O and Dasgupta, S., "Connections between real Schur polynomials and half order complex Schur polynomials", *Systems and Control Letter*, vol. 18, pp 237-244, 1992.
25. Shrivastava, Y., Dasgupta, S. and Reddy, S.M., "Guaranteed convergence in a class of Hopfield networks", *IEEE Transactions on Neural Networks*, vol. 3, pp 951-961, November 1992.
26. Dasgupta, S., Anderson, B.D.O. and Kaye, R.J., "Adaptive control of systems with unknown physical element values", *International Journal of Adaptive Control and Signal Processing*, vol. 7, pp 137-150, 1993.
27. Chockalingam, G. and Dasgupta, S., "Minimality, stabilizability and strong stabilizability of uncertain plants", *IEEE Transactions on Automatic Control*, vol. 38, No. 11, pp 1651-1661, November 1993.
28. Dasgupta, S., Johnson, C.R., Jr. and Baksho, A.M., "Characterizing persistent excitation in the sign-sign equation error adaptive identifier", *Automatica*, Vol. 29, No. 6, pp 1473- 1489, November 1993.
29. Mathew, G., Dasgupta, S. and Reddy, V.U., "Improved Gauss-Newton type algorithm for implementation of Pisarenko's harmonic retrieval method and its convergence analysis", *IEEE Transactions on Signal Processing*, vol. 42, pp 434-437, February 1994.
30. Dasgupta, S. and Andersen, D.R., "Feedback stabilization of semiconductor laser arrays", *Journal of Optical Society of America, B*, vol. 11, pp 290-296, February 1994.
31. Dasgupta, S., Chockalingam G., Anderson B.D.O. and Fu, M., "Lyapunov functions for uncertain systems with applications to the stability of time varying systems", *IEEE Transactions on Circuits and Systems I: Fundamental Theory*, vol. 41, pp 93-106, February 1994.
32. Dasgupta, S., Anderson, B.D.O. and Kaye, R.J., "Persistence of excitation conditions in partially known systems", *Automatica*, vol. 30, pp 547-550, March 1994.

33. Dasgupta, S., Garnett, J.S. and Johnson, C.R., Jr., "Convergence of an Adaptive Filter with Signed Error Filtering", *IEEE Transactions on Signal Processing*, vol. 42, pp 946-950, April 1994.
34. Garnett, J.S., Dasgupta, S. and Johnson, C.R., Jr., "Convergence of the signed output error adaptive identifier", *IEEE Transactions on Automatic Control*, vol. 39, pp 1387- 1399, July 1994.
35. Chockalingam, G. and Dasgupta, S., "Strong stabilizability of systems with multiaffine uncertainties and numerator denominator coupling", *IEEE Transactions on Automatic Control*, vol. 39, pp 1955-1959, September, 1994.
36. Anderson, B.D.O., Kraus, F.J., Mansour, M. and Dasgupta, S., "Easily testable sufficient conditions for the robust stability of systems with multiaffine parameter dependence", *Automatica*, vol. 31, pp 25-40, January 1995.
37. Fu, M., Dasgupta, S. and V. Blondel, "Robust stability under a class of nonlinear parametric perturbations", *IEEE Transactions on Automatic Control*, vol. 40, pp 213-223, February, 1995.
38. Mathew, G., Reddy, V.U. and Dasgupta, S., "Adaptive estimation of eigensubspace", *IEEE Transactions on Signal Processing*, vol. 43, pp 401-412, February 1995.
39. Shrivastava, Y., Dasgupta, S. and Reddy, S.M., "Nonpositive Hopfield networks for unidirectional error correcting coding", *IEEE Transactions on Circuits and Systems I: Fundamental Theory*, pp 293-306, June 1995.
40. Hill, D.E., Dasgupta, S., Nagpal, K.M. and Andersen, D.E., "Feedback stabilization of semiconductor laser arrays with complex coupling coefficients", *IEEE Journal of Selected Topics in Quantum Electronics, Special Issue on Semiconductor Lasers*, pp 150-164, June 1995.
41. Dasgupta, S. and Anderson, B.D.O., "A parametrization for the closed loop identification of nonlinear systems", *Automatica*, vol. 32, pp 1349-1360, 1996.
42. Dasgupta, S. and Anderson, B.D.O., "Square root of linear time varying systems with applications", *IEEE Transactions on Circuits and Systems I: Fundamental Theory* , vol. 43, pp 973-986, 1996.
43. Bai, E.W. and Dasgupta, S., "A minimal k-step delay controller for robust tracking of non-minimum phase systems", *Systems and Control Letters*, vol. 28, pp 197-203, 1996.
44. Dasgupta, S., Fu, M. and Schwarz, C., "Robust relative stability of time-invariant and time varying lattice filters", *IEEE Transactions on Signal Processing*, pp 2088-2100, 1998.
45. Halpern, M., Bottema, M., Moran, W. and Dasgupta, S., "Optimum open eye equalizer design for nonminimum phase channels", *IEEE Transactions on Signal Processing*, pp 2353-2358, 1998.
46. Lopez Valcarce, R. and Dasgupta, S., "Stable estimates in equation error identification", *IEEE Signal Processing Letters*, pp 268-270, 1998.
47. Lopez Valcarce, R. and Dasgupta, S., "A new proof of stability of equation error models", *IEEE Signal Processing Letters*, 1999.

48. A. Pandharipande and Dasgupta, S., "Subband coding of cyclostationary signals with static bit allocation", *IEEE Signal Processing Letters*, pp 284-286, 1999.
49. Francis, B. A. and Dasgupta, S., "Signal compression by subband coding", *Automatica*, **Invited Paper**, December, 1999.
50. Fu, M. and Dasgupta, S., "Computational complexity of real structured singular value in an l_p setting", *IEEE Transactions on Automatic Control*, pp. 2173-2177, November 2000.
51. Lopez Valcarce, R., Dasgupta, S., Tempo, R. and Fu., M., "Exponential asymptotic stability of time varying prediction error filters", *IEEE Transactions on Signal Processing*, pp 1928-1936, July, 2000.
52. Lopez Valcarce, R., and Dasgupta, S., "Some properties of the matrix exponential", *IEEE Transactions on Circuits and Systems -II*, pp 213-216, February 2001.
53. Schwarz, C. and Dasgupta, S., "A new normalized relatively stable lattice structure", *IEEE Transactions on Signal Processing*, pp 738-747, April 2001.
54. Lopez Valcarce, R., and Dasgupta, S., "Blind channel equalization with colored sources based on second-order statistics: a linear prediction approach", *IEEE Transactions on Signal Processing*, pp. 2050-2059, Sept. 2001.
55. Lopez Valcarce, R., Ding, Z. and Dasgupta, S., "Interference cancellation and blind equalization of linear multiuser systems", *IEEE Transactions on Signal Processing*, pp. 2042-2049, Sept. 2001.
56. Lopez Valcarce, R., and Dasgupta, S., "Blind equalization of nonlinear channels from second-order statistics", *IEEE Transactions on Signal Processing*, pp 3084-3097, December 2001.
57. Bai, E., Li, Q., and Dasgupta, S., "Blind identifiability of IIR systems", *Automatica*, vol. 38, pp.181-184, 2002.
58. Pandharipande, A. and Dasgupta, S., "On Biorthogonal Nonuniform Filter Banks and Tree Structures", *IEEE Transactions on Circuits and Systems -I*, pp 1457-1467, October 2002.
59. Pandharipande, A. and Dasgupta, S., "Optimum subband coding of cyclostationary signals", *IEEE Transactions on Circuits and Systems -I*, pp 1884-1885, December 2002.
60. Dasgupta, S. and Pandharipande, A., "Complete Characterization of Channel Resistant DMT with Cyclic Prefix", *IEEE Signal Processing Letters*, pp 161-163, June 2003.
61. Lopez Valcarce, R., and Dasgupta, S., "Second order statistical properties of nonlinearly distorted Phase-Shift-Keyed (PSK) signals", *IEEE Communications Letters*, pp 323-325, July, 2003.
62. Pandharipande, A. and Dasgupta, S., "Optimal transceivers in DMT based multiuser communications", *IEEE Transactions on Communications*, pp 2038-2046, December 2003.
63. Xu, H. Dasgupta, S. and Ding, Z. "A Novel Channel Identification Method for Fast Wireless Communication Systems", *IEEE Transactions on Communications*, vol. 10, pp 1767-1776, October 2004.

64. Fu, M., Dasgupta, S. and Soh, Y. C., "Integral Quadratic Constraint Approach vs. Multiplier Approach", *Automatica*, pp 281-287, February 2005.
65. X. Dong, Z. Ding, and S. Dasgupta, "Forward Link Channel Estimation and Precoding Based on Decimated Feedback" *IEEE Signal Processing Letters*, pp. 445-448, June 2005.
66. Pandharipande, A. and Dasgupta, S., "Optimum multiframe biorthogonal DMT with unequal subchannel assignments", *IEEE Transactions on Signal Processing*, pp 3572-3582, September 2005.
67. Anderson, B. D. O., Yu, C., Dasgupta, S. and Morse, A.S., "Control of a three coleaders formation in the plane", *Systems & Control Letters* Volume 56, Issues 9-10, pp 573-578, September-October 2007.
68. Dong, X., Ding, Z. and Dasgupta, S., "Performance analysis of a forward link channel estimation method for wireless multicarrier systems", *IEEE Transactions on Wireless Communications*, pp. 3026-3035, 2008.
69. Fidan, B., Dasgupta, S. and Anderson, B. D. O., "Guaranteeing Practical Convergence in Algorithms for Sensor and Source Localization", *IEEE Transactions on Signal Processing*, vol. 56, no. 9, pp. 4458-4469, September 2008.
70. Chen, M., Ding, Z., and Dasgupta, S., "A Semidefinite Programming Approach To Source Localization in Wireless Sensor Networks", *IEEE Signal Processing Letters*, pp. 253-256 October 2008.
71. Dandach, S. H., Fidan, B., Dasgupta, S. and Anderson, B. D. O., "A Continuous Time Linear Adaptive Source Localization Algorithm Robust to Persistent Drift", *Systems and Control Letters*, vol. 58, pp. 7-16, 2009.
72. Yu, C., Anderson, B. D. O., Dasgupta, S. and Fidan, B., "Control of a minimally persistent formation in the plane", *SIAM Journal on Control and Optimization*, Special Issue on Control and Optimization in Cooperative Networks, SIAM J. Control Optim. Volume 48, Issue 1, pp. 206-233, February 2009.
73. Chitte, S., Dasgupta, S., and Ding, Z., "Distance Estimation from Received Signal Strength Under Log-Normal Shadowing: Bias and Variance", *IEEE Signal Processing Letters* March 2009.
74. M. Cao, A. S. Morse, C. Yu, B. D. O. Anderson, and S. Dasgupta, "Maintaining a Directed, Triangular Formation of Mobile Autonomous Agents", **Invited Paper**, *Communications in Information and Systems, Special issue Dedicated to John Baillieul on the Occasion of His 65th Birthday: Part II*, vol. 11, Number 1, pp 1-16, 2010.
75. Abel, R. O., Dasgupta, S., and Kuhl, J.G "Fault Tolerant Coordinated Control of Autonomous Agents", **Invited Paper**, *Communications in Information and Systems, Special issue Dedicated to Brian Anderson on the Occasion of His 70th Birthday*, pp.173-196, 2011.
76. Xu, E., Ding, Z., and Dasgupta, S., "Reduced Complexity Semidefinite Relaxation Algorithms for Source Localization based on Time Difference of Arrival", *IEEE Transactions on Mobile Computing*, pp. 1276 - 1282, 2011.

77. Xu, E., Ding, Z., and Dasgupta, S., "Source Localization in Wireless Sensor Networks from Signal Time of Arrival Measurements", *IEEE Transactions on Signal Processing*, pp. 2887 - 2897, 2011.
78. Dandach, S. H., Dasgupta, S., and Anderson, B. D. O., "Stability of adaptive delta modulators with forgetting factor and constant inputs", *International Journal of Adaptive Control and Signal Processing*, Volume 25, Issue 8, pp. 723-739, August 2011.
79. Summers, T. H., Yu, C., Dasgupta, S., and Anderson, B. D.O., "Control of minimally persistent leader-remote-follower and coleader formations in the plane", *IEEE Transactions on Automatic Control*, pp. 2778 - 2792, December 2011.
80. Shames, I., Dasgupta, S., Fidan, B., and Anderson, B. D.O., "Circumnavigation from distance measurements under slow drift", *IEEE Transactions on Automatic Control*, pp. 889 - 903, April 2012.
81. Xu, Z., Saha, P. K. , and Dasgupta, S., "Tensor scale: An analytic approach with efficient computation and applications", *Computer Vision and Image Understanding*, pp. 1060-1075, October 2012.
82. Mudumbai, R., Dasgupta, S., and Cho, B. B., "Distributed control for optimal economic dispatch of a heterogeneous network of power generators", *IEEE Transactions on Power Systems*, pp. 1750 - 1760, November 2012.
83. Xu, E., Ding, Z., and Dasgupta, S., "Target Tracking and Mobile Sensor Navigation in Wireless Sensor Networks", *IEEE Transactions on Mobile Computing*, pp. 177 - 186, January, 2013.
84. Fidan, B., Dasgupta, S., and Anderson, B. D. O., "Adaptive range-measurement-based target pursuit", *International Journal of Adaptive Control and Signal Processing* special issue commemorating P. Ioannou's 60th birthday, **Invited paper**, Volume 27, Issue 1-2, pages 6681, January-February 2013.
85. Baidoo-Williams, H., Dasgupta, S., Mudumbai, R., and Bai, E.W., "On the Gradient Descent Localization of Radioactive Sources", *IEEE Signal Processing Letters*, pp. 1046 - 1049, November 2013.
86. Qin, D., Ding, Z., and Dasgupta, S., "On Forward Channel Estimation for MIMO Precoding in Cooperative Relay Wireless Transmission Systems", *IEEE Transactions on Signal Processing*, vol 62, Issue 5, DOI: 10.1109/TSP.2013.2296880, pp. 1265-1278, June 2014.
87. Shen, H., Ding, Z., Dasgupta, S., and Zhao, C., "Multiple Source Localization in Wireless Sensor Networks Based on Time of Arrival Measurement", *IEEE Transactions on Signal Processing*, vol 62, Issue 8, DOI: 10.1109/TSP.2014.2304433, pp. 1938-1949, August, 2014.
88. Dasgupta, S., Mao, G. and Anderson, B. D. O., "A new measure of wireless network connectivity", *IEEE Transactions on Mobile Computing*, Vol. 14, pp. 1765 - 1779, DOI: 10.1109/TMC.2014.2366106, 2015.
89. Brown, D. R., Wang, R., and Dasgupta, S., "Channel State Tracking for Large-Scale Distributed MIMO Communication Systems", *IEEE Transactions on Signal Processing*, DOI: 10.1109/TSP.2015.2407316, vol. 63, Issue 10, pp. 2559-2571, 2015.

90. Kumar, A., Mudumbai, R., Dasgupta, S., Rahman, M. M., Brown, D.R., Madhow, U. and Bidigare, P., "A Scalable Feedback Mechanism for Distributed Nullforming with Phase-Only Adaptation", *IEEE Transactions on Signal and Information Processing over Networks*, Vol. 1, pp. 58 - 70, DOI: 10.1109/TSIPN.2015.2442921, 2015.
91. Biswas, S., Achanta, A., Jacob, M., Dasgupta, S., and Mudumbai, R., "Recovery of low rank, jointly sparse matrices with different sampling matrices", *IEEE Signal Processing Letters*, Vol. 14, DOI: 10.1109/LSP.2015.2447455, pp. 1945-1949, 2015.
92. Bai, E. W., Baidoo-Williams, H., Mudumbai, R., and Dasgupta, S., "Robust tracking of piecewise linear trajectory with binary sensor networks", *Automatica*, Vol. 61, Pages 134-145, November 2015.
93. Bai, E.W., Heifetz, A., Dasgupta, S., and Mudumbai, R., "Maximum Likelihood Localization of Radioactive Sources Against a Highly Fluctuating Background", *IEEE Transactions on Nuclear Science*, pp 3274 - 3282, DOI: 10.1109/TNS.2015.2497327, 2015.
94. Gevers, M., Bazanella, A. S., Coutinho, D., and Dasgupta, S. "Identifiability and Excitation of Linearly Parameterized Rational Systems", *Automatica*, Vol. 63, pp. 3846, January 2016.
95. Kumar, A., Mudumbai, R., Dasgupta, S., Madhow, U., and Brown, D. R., "Distributed MIMO multicast with protected receivers: A scalable algorithm for joint beamforming and nullforming", *IEEE Transactions on Wireless Communications*, pp 512 - 525, 2017.
96. Guler, S., Fidan, B., Dasgupta, S., Anderson, B. D. O., and Shames, I., "Adaptive source localization based station keeping of autonomous vehicles", *IEEE Transactions on Automatic Control*, pp. 3122-3135, 2017.
97. Dasgupta, B. N., and Dasgupta, S., "A hermitian analogue of the Morita theorems", *Communications in Algebra*, pp. 2281-2295, 2017.
98. Biswas, S., Dasgupta, S., Mudumbai, R., and Jacob, M., "Subspace Aware Recovery of Low Rank and Jointly Sparse Signals", *IEEE Transactions on Computational Imaging*, pp 22 - 35, DOI: 10.1109/TCI.2016.2628352, 2017.
99. Achanta, H. K., Biswas, S., Dasgupta, B. N., Dasgupta, S., Jacob, M., and Mudumbai, R., "The spark of Fourier matrices: Connections to vanishing sums and coprimeness", *Digital Signal Processing, Special Issue on Coprime Sampling and Arrays*, pp. 76-85, 2017.
100. Goguri, S., Ogbe, D., Dasgupta, S., Mudumbai, R., Brown, D. R., Love, D. J., and Madhow, U., "Optimal Precoder Design for Distributed Transmit Beamforming over Frequency-Selective Channels", *IEEE Transactions on Wireless Communications*, pp. 7759 - 7773, 2018.
101. Achanta, H. K., Dasgupta, S., Mudumbai, R., Xu, W. and Ding, Z. "Optimum sensor placement for localization of a hazardous source under log normal shadowing", *Numerical Algebra, Control & Optimization, Special issue dedicated to B. D. O. Anderson*, pp. 361-382 DOI: 10.3934/naco.2019024, 2019.
102. Mo., Y., Dasgupta, S. and Beal, J., "Robustness of the Adaptive Bellman-Ford Algorithm: Global Stability and Ultimate Bounds", *IEEE Transactions on Automatic Control*, pp. 4121-4136, DOI: 10.1109/TAC.2019.2904239, October 2019.

103. Anjum, Md F, Haug, J., Alberico, S., Dasgupta, S., Mudumbai, R., Kennedy, M. A., Kelly, R. M. and Narayanan, N., “Linear predictive approaches separate field potentials in animal models of Parkinsons disease”, *Frontiers in Neuroscience*, 14:394. doi: 10.3389/fnins.2020.00394, 2020.
104. Anjum, Md F, Dasgupta, S., Mudumbai, R., Singh, A., Cavanaugh, J. F., and Narayanan, N., “Linear predictive coding distinguishes spectral EEG features of Parkinson’s disease”, *Parkinsonism & Related Disorders*, DOI: <https://doi.org/10.1016/j.parkreldis.2020.08.014>, pp. 79-85, October, 2020.
105. Dasgupta, B. and Dasgupta, S., “Erratum of a “Hermitian analogue of Morita theorems””, *Communications in Algebra*, Published online October 2020.
106. Mo, Y., Dasgupta, S. and Beal, J., “A Lyapunov analysis of a most probable path algorithm”, *IEEE Control Systems Letters*, pp. 1052-1057, June 2021.
107. Mo, Y., Dasgupta, S. and Beal, J., “Stability and Resilience of Distributed Information Spreading in Aggregate Computing”, to appear in *IEEE Transactions on Automatic Control*, January 2023.
108. Mo, Y., Audrito, G., Dasgupta, S. and Beal, J., “Near-Optimal Knowledge-Free Resilient Leader Election”, to *Automatica*, DOI: 10.1016/j.automatica.2022.110583, December 2022.
109. Espinoza, A. I., May, P., Anjum, Md. F. , Singh, A., Cole, R. C., Trapp, N., Dasgupta, S., Narayanan, N. S., “A pilot study of machine learning of resting-state EEG and depression in Parkinsons disease”, *Clinical Parkinsonism & Related Disorders*, September 2022, <https://doi.org/10.1016/j.prdoa.2022.100166>.
110. Xu, W., Yi, J., Dasgupta, S., Cai, J., Jacob, M., Cho, M., “Separation-free super-resolution from compressed measurements is possible: an orthonormal atomic norm minimization approach”, submitted for publication.

Conference Presentations/Publications

1. Dasgupta, S. and Dutta Majumder, D., “An error bound for feature selection with discrete cosine transform,” *Proceedings of Golden Jubilee Symposium of the Indian Statistical Institute*, 1982.
2. Dasgupta, S., Anderson, B.D.O and Tsoi, A.C., “Input conditions for continuous time adaptive systems problems,” *Proceedings of 22nd Conference on Decision and Control*, pp 1510-1514, San Antonio, Texas, 1983.
3. Dasgupta, S., Anderson, B.D.O and Kaye, R.J., “Robust identification of partially known systems,” *Proceedings of 22nd Conference on Decision and Control*, pp 1510-1514, San Antonio, Texas, 1983.
4. Dasgupta, S., Anderson, B.D.O and Kaye, R.J., “Identification of economically parameterized systems,” *Preprints of IXth IFAC World Congress*, vol X, pp 96-100, Budapest, 1984.
5. Dasgupta, S. and Huang, Y.F., “Asymptotically convergent modified RLS with data dependent updating and forgetting factor,” *Proceedings of 24th Conference on Decision and Control*, Fort Lauderdale, 1985.

6. Dasgupta, S. and Johnson, C.R., Jr. "Some comments on the behaviour of Sign-Sign Adaptive identifiers," *Proceedings of Joint American Control Conference*, pp 970-973, **Invited Paper**, Boston, 1985.
7. Dasgupta, S., "Adaptive identification of systems with polynomial dependence on unknown parameters," *Proceedings of 23rd Allerton Conference on Communication, Control and Signal Processing*, pp 613-623, Monticello, October 1985.
8. Dasgupta, S. and Johnson, C.R., Jr. "Sign-sign adaptive identifiers, convergence and robustness properties," *Preprints of IInd IFAC Workshop on Adaptive Systems for Control and Signal Processing*, pp 187-192, Lund, Sweden, 1986.
9. Dasgupta, S. and Bhagwat, A.S., "Conditions for designing strictly positive real transfer functions for adaptive output error identification," *Proceedings of 24th Allerton Conference on Communication, Control and Signal Processing*, pp 613-623, Monticello, October 1986.
10. Orgren, A.C., Dasgupta, S., Youn, D.H. and Malik, N.R., "A modified LMS algorithm with augmented predictor," *Proceedings of 21st Annual Conference on Information, Signals and Systems*, pp. 639-645, March 1987, **Invited Paper**, The Johns Hopkins University, Baltimore.
11. Schoenwald, D.S., Kokotovic, P.V. and Dasgupta, S., "A boundedness conjecture for output error identification without the SPR condition," *Proceedings of 21st Annual Conference on Information, Signals and Systems*, pp. 319-323, March 1987, **Invited Paper**, the Johns Hopkins University, Baltimore.
12. Johnson, C.R., Jr., Dasgupta, S. and Sethares, W.A., "Local stability of real CMA as a tone separator," *Yale Workshop on Applications of Adaptive Systems Theory*, pp 78-84, **Invited Paper**, New Haven, May 1987.
13. Dasgupta, S., Schoenwald, D.S. and Huang, Y.F., "An approach to bounded noise adaptive control," *Yale Workshop on Applications of Adaptive Systems Theory*, pp 78-84, **Invited Paper**, New Haven, May 1987.
14. Dasgupta, S., "A Kharitonov like theorem for systems under nonlinear passive feedback," *Proceedings of 26th Conference on Decision and Control* pp 2062-2063, **Invited Paper**, Los Angeles, December 1987.
15. Rey, G. , Johnson, C.R., Jr. and Dasgupta, S., "Tuning leakage for robust adaptive control," *Proceedings of 26th Conference on Decision and Control*, **Invited Paper**, pp 1660-1666, Los Angeles, December 1987.
16. Dasgupta, S., A. Guha and A. Ghosh, "Parallel issues in neural networks and adaptive signal processing." *Midwest Conference on Circuits and Systems*, pp 725-728, **Invited Paper**, Syracuse 1987.
17. Dasgupta, S., A. Ghosh and R. Cuykendall, "Convergence in neural memories," *Proceedings of ISCAS*, pp. 366-369, **Invited Paper**, May 1987, Philadelphia.
18. Shrivastava, Y. and Dasgupta, S., "Convergence issues in perceptron based neural network models," *Proceedings of 25th Allerton Conference on Communication, Control and Signal Processing*, pp 1133-1142, Monticello, October 1987.

19. Dasgupta, S., Elevitch, C.R. and Johnson, C.R., Jr., "Comparison between leaky sign-sign and LMS algorithms," *IFAC Symposium on Identification*, pp 353-356, **Invited Paper**, August 1988 Beijing, China.
20. Dasgupta, S., Parker, P.J., Anderson, B.D.O, Kraus, F. and Mansour, M., "Frequency domain conditions for the robust stability of linear and nonlinear systems," *Proceedings of Joint American Control Conference*, **Invited Paper**, pp 1863-1868, Atlanta, June 1988.
21. Dasgupta, S., Garnett, J.S. and Johnson, C.R., Jr., "Convergence of an adaptive filter with signed error filtering," *Proceedings of Joint American Control Conference*, pp 400-405, Atlanta, June 1988.
22. Rao, A.K., Huang, Y.F. and Dasgupta, S., "ARMA parameter estimation using a membership set recursive algorithm," *Proceedings of 26th Allerton Conference on Communication, Control and Signal Processing*, Monticello, October, 1988.
23. Dasgupta, S., Shrivastava, Y. and Krenzer, G., "Persistent excitation in bilinear systems", *Proceedings of 28th CDC*, pp 1956-1961, Tampa Florida, December 1989.
24. Anderson, B.D.O, Dasgupta, S., Khargonekar, P., Kraus, F. and Mansour, M., "Robust strict positive realness: characterization and construction," *Proceedings of 28th Conference on Decision and Control*, pp 426-430, Tampa Florida, December 1989.
25. Bai, E. W. and Dasgupta, S., "On digital control of continuous time systems using generalized hold functions", *Proceedings of 28th Conference on Decision and Control*, pp 1446-1451, Tampa Florida, December 1989.
26. Fu, M., Dasgupta, S. and Blondel, V., "Robust stability under a class of nonlinear parametric perturbations", *Proceedings of Joint American Control Conference*, **Invited Paper**, 1990.
27. Shrivastava, Y., Dasgupta, S. and Reddy, S.M., "Neural network solutions for graph theoretic problems", *Proceedings of ISCAS*, **Invited Paper**, 1990.
28. Shrivastava, Y. and Dasgupta, S., "Neural networks for exact matching of functions on a discrete domain", *Proceedings of the 29th Conference on Decision and Control*, pp 1719-1724.
29. Dasgupta, S. and Johnson, C.R., Jr., "Unbounded drift in the under-excited signed error adaptive identifier", *Proceedings of the 29th Conference on Decision and Control*, pp 3528-3533.
30. Dasgupta, S., Gevers, M. R., Bastin, G., Campion, G. and Chen, L., "Identifiability of scalar linearly parametrized polynomial systems", *IFAC Symposium on Identification*, Budapest, 1991.
31. Baksho, A.M., Dasgupta, S., Garnett, J.S. and Johnson, C.R., Jr., "On the similarity of conditions for an open-eye channel and for signed filtered error adaptive filter stability", in *Proceedings of 30th Conference on Decision and Control*, pp 1786- 1787, Brighton, 1991.

32. Dasgupta, S. and Chockalingam, G. "Parameterized Lyapunov functions for uncertain systems", in *Proceedings of International Workshop on Robustness, Invited Paper*, Switzerland, April 1992. Published as the volume Robustness of Dynamic Systems with Parameter Uncertainties, Mansour, M., S. Balemi and W. Truol Ed; pp 177- 188.³.
33. Dasgupta, S., "Strictly positive realness of matrix products", in *Proceedings of International Workshop on Robustness, Invited Paper*, Switzerland, April 1992. Published as the volume Robustness of Dynamic Systems with Parameter Uncertainties, Mansour, M., S. Balemi and W. Truol Ed; p 307.⁴.
34. Chockalingam, G. and Dasgupta, S., "Minimality, Stabilizability and Strong Stabilizability of Uncertain Systems", *Proceedings of ISCAS, Invited Paper*, pp 2720-2722 May 1992.
35. Mathews, G., V.U. Reddy and Dasgupta, S., "Gauss Newton Based Adaptive Subspace Estimation", *Proceedings of ICASSP*, March, 1992.
36. Garnett, J. S., Dasgupta, S. and Johnson, C.R., 'Jr., "Convergence of a Signed Output error Adaptive Identifier", in *Proceedings of the 31st Conference on Decision and Control*, Tucson, Arizona, December, 1992.
37. Shrivastava, Y., Dasgupta, S. and Reddy, S.M., "Nonpositive Hopfield Networks for Unidirectional Error Correcting Coding", in *Proceedings of the Joint American Automatic Control Conference*, San Francisco, June, 1993.
38. Dasgupta, S., Johnson, C.R., Jr. and Baksho, A.M., "Checking persistent excitation for the sign-sign algorithm with periodic regressors", *Proceedings of the IFAC World Congress*, Sydney, Australia, July, 1993.
39. Dasgupta, S., Chockalingam, G., Anderson, B.D.O and Fu, M., " Parametrized Lyapunov functions with application to the stability analysis of time varying systems", *Proceedings of the 32nd Conference on Decision and Control, Invited Paper*, pp 1525-1530, December, 1993.
40. Shrivastava, Y. and Dasgupta, S., "The largest number of stationary points that an arbitrary Hopfield network can have", *Proceedings of the 32nd Conference on Decisions and Controls*, San Antonio, pp 3682-3687, December, 1993.
41. Chockalingam, G. and Dasgupta, S., "Strong stabilizability of systems with multiaffine uncertainties and numerator denominator coupling, *Proceedings of Joint American Automatic Control Conference*, June 1994, Baltimore, Maryland.
42. Bai, E.W. and Dasgupta, S., "A minimal k-step delay controller for robust tracking of non-minimum phase systems", in *Proceedings of the 33rd Conference on Decisions and Controls*, pp 12- 17, Lake Buena Vista, Fl., December, 1994.
43. Shrivastava, Y. and Dasgupta, S., "An M-part Sperner theorem with applications to neural networks", in *Proceedings of the 33rd Conference on Decisions and Controls*, Lake Buena Vista, Fl., pp 972-977, December, 1994.

³Organizers met partial expenses

⁴Organizers met partial expenses

44. Hill, D.E., Nagpal, K.M., Dasgupta, S. and Andersen, D.R., "Dynamic feedback control of semiconductor injection laser arrays with complex coupling coefficients", *OSA Annual Meeting*, p 83, October, 1994.
45. Dasgupta, S. and Anderson, B.D.O, "Square root of linear time varying systems with applications", in *Proceedings of Workshop on Nonlinear and Adaptive Control, Invited Paper*, September 1994, Sydney, Australia. Also in *Proceedings of Hurwitz Centennial Workshop 1995*, Ascona, Switzerland.
46. Dasgupta, S. and Anderson, B.D.O, "Closed loop identification of nonlinear time varying systems", *IV Workshop on Adaptive Control: Applications to Nonlinear Systems and Robotics, Invited Paper*, December 1994, Cancun, Mexico.
47. Nagpal, K.M., Dasgupta, S. and Bai, E.W., "A remark on the worst case output estimation and identification", *Proceedings JACC*, June 1995.
48. Bartlett, P.L., and Dasgupta, S., "Exponential convergence of a gradient descent algorithm for a class of recurrent neural networks", *Proceedings of 38th Midwest Conference on Circuits and Systems*, Rio de Janeiro, August, 1995.
49. Dasgupta, S., Shrivastava, Y. and Reddy, S.M., "Unidirectional error correcting with Hopfield networks", in *Proceedings of the International Conference on Neural Networks, Invited Paper*, Perth, December 1995.
50. Schwarz, C., Dasgupta, S. and Nagpal, K.M., "H₂-norm of uncertain systems", in *Proceedings of 34th Conference on Decisions and Controls*, New Orleans, December 1995.
51. Dasgupta, S., "Average quantizer adaptation rates for stable ADPCM", in *Proceedings of ICASSP*, May, 1996, Atlanta, GA.
52. Williamson, G. A., Dasgupta, S. and Fu, M., "Adaptive multirate, multistage filters", in *Proceedings of ICASSP*, May, 1996, Atlanta, GA.
53. Fu, M., Dasgupta, S. and Williamson, G. A., "A general framework for optimum multirate filter design", in *Proceedings of ISSPA*, 1996, Gold Coast, Australia.
54. Dasgupta, S., Chockalingam, G. and Fu, M., "Stability and passivity analysis of systems with time varying parameters", in *Proceedings of 35th Conference on Decisions and Controls, Invited Paper*, Kobe, Japan, December 1996.
55. Dasgupta, S., "Average quantizer adaptation rates for stable nonstationary ADPCM", in *Proceedings of 35th Conference on Decisions and Controls*, Kobe, **Invited Paper**, Japan, December 1996.
56. Dasgupta, S. and Schwarz, C., "Worst case H₂-Norm of uncertain transfer functions", *Proceedings of 35th Conference on Decisions and Controls*, Kobe, Japan, December 1996.
57. Fu, M. and Dasgupta, S., "New extreme point results on robust strict positive realness", in *Proceedings of 35th Conference on Decisions and Controls*, Kobe, Japan, December 1996.
58. Dasgupta, S., Fu, M. and Schwarz, C., "Robust relative stability of time-invariant and time varying lattice filters", in *Proceedings of 35th Conference on Decisions and Controls*, Kobe, Japan, December 1996.

59. Lopez Valcarce, R. and Dasgupta, S., “Stable estimates in equation error identification: An open Problem”, *Open Problems in Mathematical Systems Theory*, V. Blondel, E. Sontag, M. Vidyasagar and J. Willems, Ed, Springer Verlag, 1998.⁵
60. Fu, M. and Dasgupta, S., ”Computational complexity of real structured singular value in an l_p setting”, in *Proceedings of European Control Conference*, July 1997.
61. Dasgupta, S., “A Glimpse of Multirate Signal Processing”, in *Proceedings of European Control Conference*, Kobe, Japan, December 1996. Semiplenary talk, July 1997.
62. Whikehart, W. M. and Dasgupta, S., “Adaptive periodic filtering”, in *Proceedings of ICASSP*, Munich, Germany, April 1997.
63. Dasgupta, S., Schwarz, C, and Fu, M ., “A lattice structure for perfect reconstruction linear time varying IIR filter banks with all pass analysis bank”, in *Proceedings of ICASSP*, **Invited Paper**, June, 1997, Munich, Germany, April 1997.
64. S. Dasgupta, “Finite Time Recovery in Decision Feedback Equalizers for Time Varying Channels”, *Proc. of MWSCAS*, **Invited Paper**, Sacramento, CA., August, 1997.
65. Schwarz, C, Dasgupta, S., and Fu, M ., “Dyadic factorization of all pass linear time varying analysis banks in multirate signal processing”, in *Proceedings of 36th Conference on Decisions and Controls*, December 1997, San Diego, CA.
66. Valcarce, R.L., and Dasgupta, S., “Stable estimates in equation error identification”, in *Proceedings of 36th Conference on Decisions and Controls*, December 1997, San Diego, CA.
67. Halpern, M., Bottema, M., Moran, W. and Dasgupta, S., “Optimum open eye equalizer design for nonminimum phase channels”, in *Proceedings of ICASSP*, May 1998, Seattle, WA.
68. Dasgupta, S., “Optimum biorthogonal subband coding”, *Learning, Control and Hybrid Systems*, Y. Yamamoto and S. Hara, Ed, Springer, 1999. ^{6 7}
69. Lopez-Valcarce, R., Dasgupta, S., Tempo, R. and Fu, M. “Stability conditions for time-varying inverse predictor”, *Proceedings of 37th CDC*, Tampa, FL, December 1998.
70. V. U. Reddy, B. K. Dey and S. Dasgupta, “Discrete multitone modulation with least squares inverse channel filtering”, *Proc. IEEE Int. Conf. on Personal Wireless Communications*, Feb '99.
71. S. Dasgupta, C. Schwarz and B.D.O. Anderson, “Optimum subband coding of cyclostationary signals”, *Proc. ICASSP*, Phoenix, AZ, March 1999.
72. C. Schwarz and S. Dasgupta, “A new normalized relatively stable lattice structure”, *Proc. ICASSP*, Phoenix, AZ, March 1999.
73. R. Lopez-Valcarce and S. Dasgupta, “On the stability of the inverse time-varying prediction error filter obtained with the RWLS algorithm”, *Proc. ICASSP*, Phoenix, AZ, March 1999.

⁵Proceedings of a workshop by the same name held in Liege, 1997.

⁶Proceedings of a workshop by the same name held in Bangalore, 1997.

⁷Organizers met partial expenses.

74. Pandharipande, A. and Dasgupta, S., "Subband coding of cyclostationary signals with static bit allocation", in *Proceedings of ISSPA*, Brisbane, August 1999.
75. Fu., M., DeSouza, C., and Dasgupta, S. "Robustness analysis of linear systems with time varying parameters", *Proceedings of 38th CDC*, Phoenix, AZ., 1999.
76. Dasgupta, S. "An approach to multirate control", in *Proceedings of 38th CDC*, Phoenix, AZ., 1999.
77. Bai, E.W. and Dasgupta, S. "On identifiability in blind IIR identification", *Proceedings of 38th CDC*, Phoenix, AZ, 1999.
78. R. Lopez-Valcarce and S. Dasgupta, "Blind channel identifiability/equalizability of single input, multiple output nonlinear channels from second order statistics", in *Proceedings of ICASSP*, Istanbul, Turkey, 2000.
79. Z. Ding, S. Dasgupta, and R. Lopez-Valcarce, "Interference cancellation and blind equalization of linear multiuser systems", in *Proceedings of ICASSP* Istanbul, Turkey, 2000.
80. Pandharipande, A. and Dasgupta, S., "Issues in the design of nonuniform filterbanks", *Proceedings of SPIE 2000 conference on Wavelet applications in Signal and Image Processing VIII Invited Paper*, San Diego, CA, August, 2000.
81. R. Lopez-Valcarce and S. Dasgupta, "The role of second order statistics in the blind identification of nonlinear channels", to appear in *Proceedings of the 10th IEEE Workshop on Statistical Signal and Array Processing*, Pennsylvania, August 2000.
82. Dasgupta, S., "Subband coding for fast digital controller implementation", **Invited Paper** in *Proceedings of 40th CDC*, Sydney, Australia, December 2000.
83. Lopez Valcarce, R., and Dasgupta, S., "Blind equalization of nonlinear digital satellite links with PSK modulation", in *Proceedings of ISCAS* , Sydney, Australia, May 2001.
84. Lopez Valcarce, R., and Dasgupta, S., "Second order statistics based blind channel equalization with correlated sources", in *Proceedings of ISCAS* , Sydney, Australia, May 2001.
85. Pandharipande, A. and Dasgupta, S., "Optimal transceivers in DMT based multiuser communications", in *Proceedings of ICASSP* , Salt Lake City, Utah, May 2001.
86. Lopez Valcarce, R., and Dasgupta, S., "Blind equalization of Nonlinear Channels from SOS using precoding and channel diversity", in *Proceedings of ICASSP* , Salt Lake City, Utah, May 2001.
87. Xu, H. Dasgupta, S. and Ding, Z. "A Novel Channel Identification Method for Fast Wireless Communication Systems", in *Proceedings of ICC 2001*. Also in *Proceedings of Workshop on Defence Applications of Signal Processing*, **Invited Paper** Borossa Valley, Australia, June 2002⁸
88. Lopez Valcarce, R., and Dasgupta, S., " On blind equalization of rank deficient nonlinear channels", in *Proceedings of 2001 IEEE Workshop on Statistical Signal Processing*, Singapore, August 2001.

⁸Organizers met full expenses.

89. Pandharipande, A. Dasgupta, S., and Kula, D., "Optimal subband coding of cyclostationary signals", in *Proceedings of 35th Asilomar Conference on Signals, Systems and Computers*, November, 2001.
90. Dasgupta, S., "Subband coding for fast digital controller implementation: The general Case", **Invited Paper** in *Proceedings of 40th CDC*, Orlando, Florida, December 2001.
91. Pandharipande, A. and Dasgupta, S., "Optimal compaction filters for cyclostationary signals", in *Proceedings of ICASSP*, Orlando, Florida, May 2002.
92. Tigrek, T., Dasgupta, S. and Smith, T.F., "Nonlinear optimal control of HVAC systems", in *Proceedings of IFAC World Congress*, Barcelona, Spain, July 2002.
93. Dasgupta, S., and Pandharipande, A., "Optimal subband coding of cyclostationary signals with overinterpolated filterbanks", in *Proceedings of EUSIPCO 2002*, Toulouse, France, September 2002.
94. Pandharipande, A. and Dasgupta, S., "Channel and flow adaptive multiuser DMT", in *Proceedings of 35th Asilomar Conference on Signals, Systems and Computers*, November, 2002.
95. Pandharipande, A. and Dasgupta, S., "Optimum Biorthogonal DMT Systems for Multiservice Communication", in *Proceedings of ICASSP*, April 2003.
96. Xu, H. Dasgupta, S. and Ding, Z. "An Improved Feedback Scheme for Dual Channel Identification", in *Proceedings of ICASSP*, April 2003.
97. Pandharipande, A. and Dasgupta, S., "Optimum multiuser DMT with unequal subchannel assignments", in *Proceedings of ICC*, May 2003.
98. Xu, H. Dasgupta, S. and Ding, Z. "A Novel Channel Identification Method for Fast Wireless Communication Systems with Receiver and Transmitter Diversity", in *Proceedings of ISCAS*, May 2003.
99. Dasgupta, S., "Control over bandlimited channels: Limitations to stabilizability", in *Proceedings of Conference on Decision and Control*, December 2003, Hawaii.
100. Xu, H. and Dasgupta, S., "Dual channel estimation method with feedback in OFDM systems", in *Proceedings of DSPCS 2003*, December 2003, Gold Coast, Australia.
101. Dong, X., Ding, Z., and Dasgupta, S., "Fractional spaced dual channel estimation based on decimated feedback", in *Proceedings of Wireless Communications and Networking Conference*, March 2004, Atlanta, GA.
102. Dasgupta, S., and Pandharipande, A., "Complete characterization of channel resistant OFDM with cyclic prefix", **Invited Paper**, in *Proceedings of ISCAS*, May 2004, Vancouver.
103. Vemulapalli, M., Dasgupta, S., and Pandharipande, A., "A new algorithm for optimum bit loading", in *Proceedings of ICASSP*, May 2004, Vancouver.
104. Dandach, S. H., and Dasgupta, S., "Optimal design of stable haptic devices", in *Proceedings of SICE Annual Conference*, August 2004, Sapporo, Japan.

105. Dasgupta, S. and Pandharipande, A., "Optimum multiframe biorthogonal DMT, with unequal subchannel assignment", in *Proceedings of IFAC Workshop on Periodic Control Systems*, August 2004, Yokohama, Japan.
106. Dandach, S. H., and Dasgupta, S., "Adaptive force feedback for stable haptic devices", in *Proceedings of 3rd IFAC workshop on Mechatronics*, September 2004, Sydney, Australia.
107. Dandach, S. H., Dasgupta, S., and Fruedenberg, J., "Control over Communications Channels: Intersampling behavior", in *Proceedings of IEEE SMC Conference*, October 2004, the Hague, the Netherlands.
108. Song, X., and Dasgupta, S., "Optimum multiframe DMT with cyclic prefix", in *Proceedings of ICASSP*, March 2005, Philadelphia, PA.
109. Dandach, S. H., Dasgupta, S., and Anderson, B. D.O., "Stability of adaptive delta modulators with constant inputs", in *Proceedings of IASTED Conference of Networks and Communications Systems*, April 2005, Krabi, Thailand.
110. Abel, R.O., Dasgupta, S., and Kuhl, J. G., "Coordinated fault-tolerant control of autonomous agents: geometry and communications architecture, in *Preprints of IFAC World Congress*, Prague, June 2005.
111. Song, X., and Dasgupta, S., "A separation principle for optimum biorthogonal DMT without a high data rate assumption", in *Proceedings of ISSPA*, August 2005, Sydney, Australia.
112. Dandach, S. H., Dasgupta, S., and Anderson, B. D.O., "Stability of adaptive delta modulators with constant inputs and a forgetting factor", in *Proceedings of IEEE CDC*, December 2005, Seville, Spain.
113. Song, X., and Dasgupta, S., "Optimum ISI-free DMT Systems with Integer Bitloading and Arbitrary Data Rates: When does Orthonormality Suffice?", in *Proceedings of ICASSP*, May 2006, Toulouse, France.
114. Vemulapalli, M., Dasgupta, S., and Pandharipande, A., "A new algorithm for optimum bit loading with a general cost", in *Proceedings of ISCAS*, May 2006, KOS, Greece.
115. Abel, R. O., Dasgupta, S. and Kuhl, J. G., "Fault tolerant, reconfigurable, scalable and distributed multiagent formation control", **Invited Paper**, in *Proceedings of MTNS*, July 2006, Kyoto, Japan.
116. Vemulapalli, M. and Dasgupta, S., "NP-Hardness of Bit Allocation in Multiuser Multicarrier Communications", in *Proceedings of EUSIPCO*, September 2006, Firenze, Italy.
117. López-Valcarce, R. and Dasgupta, S., "Toward a Theory of Multirate Nonlinear Systems", in *Proceedings of SPAWC*, July 2006, Cannes, France.
118. Dandach, S. H., Fidan, B., Dasgupta, S. and Anderson, B. D. O., "Adaptive Source Localization by Mobile Agents", in *Proceedings of IEEE CDC*, December 2006, San Diego, CA.
119. Fidan, B., Dasgupta, S. and Anderson, B. D. O., "Conditions for Guaranteed Convergence in Sensor and Source Localization", in *Proceedings of ICASSP*, May 2007, Hawaii.

120. Abel, R. O., Dasgupta, S. and Kuhl, J. G., "Fault Tolerant Scalable Coordinated Control of Agent Formations with Arbitrary Trajectories", in *Proceedings of the Sixth IEEE International Conference on Control and Automation*, May 2007, Guangzhou, China.
121. Song, X. and Dasgupta, S., "Optimum ISI-Free DMT Systems With Arbitrary Data Rates and PSK Modulation: When Does Othonornmality Suffice?", in *Proceedings of the AsiaCSN 2007*, April 2007.
122. Song, X. and Dasgupta, S., "Optimum ISI-Free DMT Systems With Concave SNR to Bit Rate Relations: When Does Othonornmality Suffice?", in *Proceedings of SPAWC*, May 2007, Helsinki, Finland.
123. Abel, R. O., Dasgupta, S. and Kuhl, J. G., "Distributed multiagent formation control with enhanced scalability", in *Proceedings of European Control Conference*, June 2007.
124. Abel, R. O., Dasgupta, S. and Kuhl, J. G., "One Step Ahead Quadratic Receding Horizon Distributed Control of Multiagent Formations", in *Proceedings of 2007 IEEE Multi-conference on Systems and Control*, Singapore, October 2007.
125. Song, X. and Dasgupta, S., "When is an optimal transform coder orthonormal?", in *Proceedings of ISCIT*, Sydney, Australia, October 2007.
126. Anderson, B. D. O., Anderson, Dasgupta, S., and Yu., C., "Control of Directed Formations with a Leader-First Follower Structure", in *Proceedings of IEEE CDC*, December 2007, New Orleans, LA.
127. Cao, M., Morse, A. S., Yu, C., Anderson, B. D. O., and Dasgupta, S., "Controlling a Triangular Formation of Mobile Autonomous Agents", in **Invited Paper**, *Proceedings of IEEE CDC*, December 2007, New Orleans, LA.
128. Fidan, B., Dasgupta, S., and Anderson, B. D. O., "Realistic Anchor Positioning for Sensor Localization", **Invited Paper**, in *Proceedings of M. Vidyasagar's 60th Birthday Celebration*, Hyderabad, India, January 2008.
129. Cao, M., Morse, Yu, C., A. S., Anderson, B. D. O., and Dasgupta, S., "Generalized Controller for Directed Triangle Formations", in **Invited Paper**, *Preprints of IFAC World Congress*, July, 2008, Seoul, Korea.
130. Vemulapalli, M., Dasgupta, S., and Kuhl, J., "Fault Tolerant, Scalable Multi-Agent Control Under Medium Access Constraints", **Invited Paper**, *Preprints of IFAC World Congress*, July, 2008, Seoul, Korea.
131. Vemulapalli, M., Dasgupta, S. and Kuhl, J. G., " Achieving Formations Under Medium Access, Relative Position and Velocity Constraints", in *Proceedings of ICCAS*, October 2006, Seoul, Korea.
132. Chitte, S. D., Dasgupta, S., and Ding, Z., "Distance Estimation from Received Signal Strength: Bias and Variance", in *Proceedings of 9th International Conference on Signal Processing*, Oct.26-29, 2008 Beijing, China
133. Ibeawuchi, S.-R.C., Dasgupta, S.; Meng. C., Ding, Z., "Source localization using a maximum likelihood/semidefinite programming hybrid", in *Proceedings of 3rd International Conference on Sensing Technology*, Nov. 30-Dec. 3, Tainan, Taiwan.

134. Abel, R., Dasgupta, S. and Kuhl, J. G., "Rates of convergence for distributed multi-agent formation control", in *Proceedings of CDC*, December 2008, Cancun, Mexico.
135. Dasgupta, S., Ibeawuachi, S., and Ding, Z., "Optimum sensor placement for source monitoring under log-normal shadowing", in *Proceedings of IFAC Symposium on System Identification*, July, 2009, Saint-Malo, France.
136. Shames, I., Dasgupta, S., Fidan, B. and Anderson, B. D. O., "Circumnavigation Using Distance Measurements", in *Proceedings of ECC, Invited Paper*, August 2009, Budapest, Hungary.
137. Summers, T., Yu, C., Anderson, B. D. O., and Dasgupta, S., "Control of LRF Formations in the Plane", in *Proceedings of ECC*, August 2009, **Invited Paper**, Budapest, Hungary.
138. Dasgupta, S., Ibeawuachi, S., and Ding, Z., "Optimum sensor placement for source monitoring under log-normal shadowing in three dimensions", in *Proceedings of the Ninth International Symposium on Communication and Information Technology*, September 2009, Incheon, S. Korea.
139. Chitte, S. D., Dasgupta, S., and Ding, Z., "Source Localization from Received Signal Strength under Log-Normal Shadowing: Bias and Variance", in *Proceedings of CISP-BMEI09*, October 2009, Tianjin China.
140. Summers, T., Yu, C., Anderson, B. D. O., and Dasgupta, S., "Formation Shape Control: Global Asymptotic Stability of a Four-Agent Formation", in *Proceedings of IEEE CDC*, December 2009, Shanghai, China.
141. Summers, T., Yu, C., Anderson, B. D. O., and Dasgupta, S., "Control of Coleader Formations in the Plane", in *Proceedings of IEEE CDC*, December 2009, Shanghai, China.
142. Xu, E., Ding, Z., and Dasgupta, S., "Wireless Source Localization Based on Time of Arrival Measurement", in *Proceedings of ICASSP*, March 2010, Dallas, Texas.
143. Xu, E., Ding, Z., and Dasgupta, S., "Robust and Low Complexity Source Localization in Wireless Sensor Networks Using Time Difference of Arrival Measurement", in *Proceedings of WCNC*, April 2010, Sydney, Australia.
144. Mudumbai, R., Dasgupta, S. and Cho, B., "Distributed control for optimal economic dispatch of power generators", in *Proceedings of the 29th Chinese Control Conference*, July 2010, Beijing, China.
145. Anderson, B. D. O., Yu, C., Dasgupta, S., and Summers, T. H., "Controlling Four Agent Formations", in *Proceedings of NecSys*, September 2010, Annency, France.
146. Dasgupta, S., Ibeawuachi, S., and Ding, Z., "Optimum sensor placement for source localization under log-normal shadowing", in *Proceedings of ISCIT*, October 2010, Tokyo, Japan.
147. Yu, C., Dasgupta, S., and Anderson, B.D.O., "Network Localizability with Link or Node Losses", in *Proceedings of IEEE CDC*, Atlanta, GA, December 2010.
148. Rahman, M. M., Mudumbai, R., and Dasgupta, S., "Consensus Based Carrier Synchronization in a Two Node Network", in *Preprints of IFAC World Congress*, Milano, Italy, August-September, 2011.

149. Dasgupta, S., Bai, E., and Tempo, R., “Anchored consensus in multiagent systems”, in *Proceedings of the 30th Chinese Control Conference*, July 2011, Yantai, China.
150. Dasgupta, S., Anderson, B. D. O., Yu, C., and Summers, T. H., “Controlling a rectangular formation”, in *Proceedings of the Australian Control Conference*, November 2011, Melbourne, Australia.
151. Mudumbai, R., Dasgupta, S. and Cho, B., “Distributed control for optimal economic dispatch of power generators: The heterogeneous case”, in *Proceedings of IEEE CDC*, December 2011, Orlando, Florida.
152. Mudumbai, R., Bidigare, P., Pruessing, S., Dasgupta, S., Oyarzun, M., and Raeman, D., “Scalable feedback algorithms for distributed transmit beamforming in wireless networks”, in *Proceedings of ICASSP*, **Invited Paper**, March 2012, Kyoto, Japan.
153. Xu, E., Ding, Z., and Dasgupta, S., “Urban source localization based on time of arrival measurement and street information”, in *Proceedings of ICASSP*, March 2012, Kyoto, Japan.
154. Brown, D. R., Mudumbai, R., and Dasgupta, S., “Fundamental limits on phase and frequency tracking and estimation in drifting oscillators”, in *Proceedings of ICASSP*, **Invited Paper**, March 2012, Kyoto, Japan.
155. Brown, D.R., Madhow, U., Bidigare, P. and Dasgupta, S., “Receiver-coordinated distributed transmit nullforming with channel state uncertainty”, in *Proceedings of Conference in Information Science and Systems*, March 2012, Princeton, NJ.
156. Rahman, M. M., Baidoo-Williams, H., Mudumbai, R., and Dasgupta, S., “Fully Wireless Implementation of Distributed Beamforming on a Software-Defined Radio Platform”, in *Proceedings of The 11th ACM/IEEE Conference on Information Processing in Sensor Networks*, April 2012, Beijing, China.
157. Brown, D.R., Bidigare, P., Dasgupta, S., and Madhow, U., “Receiver-coordinated zero-forcing distributed transmit nullforming”, in *Proceedings of IEEE Workshop on Statistical Signal Processing*, **Invited Paper**, August 2012, Ann Arbor, MI.
158. Rahman, M. M., Mudumbai, R., and Dasgupta, S., “A distributed consensus approach to synchronization of RF signals”, in *Proceedings of IEEE Workshop on Statistical Signal Processing*, **Invited Paper**, August 2012, Ann Arbor, MI.
159. Dasgupta, S. and Fidan, B., “Uniform Asymptotic Convergence of an Adaptive Algorithm with Diminishing Persistent Excitation”, in *Proceedings of IFAC Symposium on System Identification*, July 2012, Brussels, Belgium.
160. Yasmeen, A., Mudumbai, R., and Dasgupta, S., “A Distributed Algorithm for Optimal Dispatch in Smart Power Grids with Piecewise Linear Cost Functions”, in *Proceedings of the Australian Control Conference*, November 2012, Sydney, Australia.
161. Dasgupta, S., and Mao, G., “On the Quality of Wireless Network Connectivity”, in *Proceedings of IEEE Globecom*, December 2012, Anaheim, CA.
162. Fidan, B., Dasgupta, S., and Anderson, B. D. O., “Adaptive Docking Using Range Measurements”, in *Proceedings of IEEE CDC*, December 2012, Maui, HI.

163. M. M. Rahman, R. Mudumbai and S. Dasgupta, “A scalable feedback-based approach to distributed nullforming”, in *Proceedings of WICOM*, April 2013, Shanghai, China.
164. Achanta, H., Xu, W., and Dasgupta, “Sensor Network and Distributed Estimation”, in *Proceedings of ICASSP*, May 2013, Vancouver, Canada.
165. Kumar, A., Dasgupta, S., and Mudumbai, R., “Distributed nullforming without prior frequency synchronization”, in *Proceedings of Australian Control Conference*. November 2013.
166. Gevers, M., Bazanella, A. S., Coutinho, D., and Dasgupta, S. “Identifiability and Excitation of Polynomial Systems”, in *Proceedings of IEEE CDC*, **Invited Paper**, December 2013.
167. Brown, D.R., Wang, R., and Dasgupta, S., “Asymptotic Oscillator Tracking Performance Analysis for Distributed Massive MIMO Systems”, in *Proceedings of CISS*, March 2014, Princeton, NJ.
168. Achanta, H. K., Biswas, S., Dasgupta, S., Jacob, M., Mudumbai, R., and Dasgupta, B. N., “Coprime conditions for Fourier Sampling for Sparse Recovery” in *Proceedings of Sensor Array and Multichannel Signal Processing Workshop*, **Invited Paper**, June 2014, A Coruna, Spain.
169. Bai, E. W., Dasgupta, S., and Mudumbai, R., “Source Location Estimation for Possibly Unknown Propagation Models”, in *Proceedings of JACC*, Portland, OR, June 2014.
170. Kumar, A., Koch, P. A., Baidoo-Williams, H. E., Mudumbai, R., and Dasgupta, S., “An empirical study of the statistics of phase drift of off-the-shelf oscillators for distributed MIMO applications”, in *Proceedings of International Symposium on Dynamic Spectrum Access Network*, pp 350-353, 2014.
171. Mudumbai, R., and Dasgupta, S., “Distributed control for the smart grid: The case of economic dispatch”, in *Proceedings of Information Theory and Applications Workshop*, February 2014, San Diego, CA.
172. Madhow, U., Brown, D. R., Dasgupta, S., and Mudumbai, R., “Distributed massive MIMO: algorithms, architectures and concept systems”, in *Proceedings of Information Theory and Applications Workshop*, February 2014, San Diego, CA.
173. Bai, E. W., Baidoo-Williams, H. E., Dasgupta, S., and Mudumbai, R., “Tracking with Binary Sensors”, in *Proceedings of CCC*, Nanjing, China, July 2014.
174. Achanta, H. K., Dasgupta, S., Xu, W., Mudumbai, R., and Bai, E. W., “A Distributed Control Law for Optimum Sensor Placement for Source Localization”, in *Proceedings of IEEE RASSP*, September 2014, Noida, India.
175. Biswas, S., Poddar, S., Dasgupta, S., Mudumbai, R. and Jacob, M., “Subspace based low rank and joint sparse matrix recovery”, *Proceedings of the 48th Annual Conference on Signals, Systems and Computers*, pp. 642 - 646, DOI: 10.1109/ACSSC.2014.7094525, November 2014, Monterrey, CA.
176. Kumar, A., Mudumbai, R., and Dasgupta, S., “Scalable algorithms for joint beam and nullforming using distributed antenna arrays”, in *Proceedings of IEEE Globecom*, December 2014, Austin, TX.

177. Bai, E. W., Dasgupta, S., and Mudumbai, R., "The Maximum Likelihood Estimate for Radiation Source Localization: Initializing an Iterative Search", *Proceedings of IEEE CDC*, December 2014, Los Angeles, CA.
178. Dasgupta, S., Brown, D. R., and Wang, R., "Steady State Kalman Filter Behavior for Unstabilizable Systems", *Proceedings of IEEE CDC*, December 2014, Los Angeles, CA.
179. Goguri, S., Hall, J., Mudumbai, R. and Dasgupta, S., "A distributed, real-time and non-parametric approach to demand response in the smart grid", *Proceedings of the 49th Annual Conference on Information Sciences and Systems*, pp 1-5, March 2015, Baltimore, MD.
180. Biswas, S., Poddar, S., Dasgupta, S., Mudumbai, R., and Jacob, M., "Two step recovery of jointly sparse and low rank matrices", *Proceedings of IEEE International Symposium on Biomedical Imaging*, Brooklyn, NY, April 2015.
181. Haug, J., Goguri, S., Dasgupta, S., and Mudumbai, R., "A Nonlinear Full Order Observer for Oscillator Tracking", *Proceedings of the Chinese Control Conference*, July 2015, Hangzhou, China.
182. Kumar, A., Beal, J., Dasgupta, S., and Mudumbai, R., "Toward Predicting Distributed Systems Dynamics", in *Proceedings of IEEE International Conference on Self-Adaptive and Self-Organizing Systems Workshops*, 2015.
183. Basu, M., Dasgupta, S., and Mudumbai, R., "Intelligent Distributed Economic Dispatch in Smart Grids", *Proceedings of the International Symposium on Intelligent Systems Technologies and Applications*, August 2015, Kochi, India.
184. Biswas, S., Dasgupta, S., Mudumbai, R., and Jacob, M., "Spark under 2-D Fourier sampling", *Proceedings of EUSIPCO*, **Invited Paper**, September 2015, Nice, France.
185. Dasgupta, S., and Anderson, B. D. O., "Controlling Formations with Double Integrator and Passive Actuation", in *Proceedings of Multiconference on Systems and Controls*, September 2015, Sydney, Australia.
186. Peiffer, B., Goguri, S., Dasgupta, S., and Mudumbai, R., "An approach to Kalman Filtering for Oscillator Tracking", in *Proceedings of Asilomar Conference on Signals, Systems, and Computers*, **Invited Paper**, November 2015, Monterrey, CA.
187. Bidigare, T. P., Brown, D. R., Madhow, U., Mudumbai, R., Kumar, A., Peiffer, B., and Dasgupta, S., "Wideband Distributed Transmit Beamforming using Channel Reciprocity and Relative Calibration", in *Proceedings of Asilomar Conference on Signals, Systems, and Computers*, **Invited Paper**, November 2015, Monterrey, CA.
188. Bai, E., Dasgupta, S., and Mudumbai, R., "A Bayesian Approach to Multiple Target Localization", in *Proceedings of 54th IEEE Conference on Decision and Control*, Osaka, Japan, December 2015.
189. Baidoo-Williams, H.E. Mudumbai, R., Bai, E., and Dasgupta, S., "Some theoretical limits on nuclear source localization and tracking", in *Proceedings of 2015 Information Theory and Applications Workshop (ITA)*, pp. 270-274, DOI: 10.1109/ITA.2015.7309000, 2015.

190. Dasgupta, S., and Beal, J., “A Lyapunov analysis for the robust stability of an adaptive Bellman-Ford algorithm”, in *Proceedings of 55th IEEE Conference on Decision and Control (CDC)*, pp. 7282- 7287, DOI: 10.1109/CDC.2016.7799393, Las Vegas, NV, 2016.
191. Peiffer, B., Mudumbai, R., Goguri, S., Kruger, A., Dasgupta, S., “Experimental demonstration of retrodirective beamforming from a fully wireless distributed array”, in *Proceedings of IEEE Military Communications Conference*, pp. 442 - 447, DOI: 10.1109/MILCOM.2016.7795367, 2016.
192. Guler, S., Fidan, B., and Dasgupta, S., “Cohesive motion control as a regulation problem”, in *Proceedings of 24th Mediterranean Conference on Control and Automation (MED)*, pp. 1071 - 1076, DOI: 10.1109/MED.2016.7535997, 2016.
193. Goguri, S., Mudumbai, R., Brown, D. R., Dasgupta, S., and Madhow, U., “Capacity maximization for distributed broadband beamforming”, in *Proceedings of IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pp. 3441 - 3445, DOI: 10.1109/ICASSP.2016.7472316, Shanghai, China, 2016.
194. Peiffer, B., Mudumbai, R., Kumar, A., Kruger, A., Dasgupta, S., “Experimental demonstration of a distributed antenna array pre-synchronized for retrodirective transmission”, in *Proceedings of CISS*, March 2016, Princeton, MD.
195. Goguri, S., Ogbe, D., Mudumbai, R., Love, D., Dasgupta, S., and Bidigare, T. P., “Maximizing wireless power transfer using distributed beamforming”, in *Proceedings of 50th Asilomar Conference on Signals, Systems and Computers*, pp 1775 - 1779, DOI: 10.1109/ACSSC.2016.7869688, Monterrey, CA., 2016.
196. Goguri, S., Peiffer, B., Mudumbai, R., and Dasgupta, S., “A class of scalable feedback algorithms for beam and null-forming from distributed arrays”, in *Proceedings of 50th Asilomar Conference on Signals, Systems and Computers*, pp 1447 - 1451, DOI: 10.1109/ACSSC.2016.7869616, Monterrey, CA., 2016.
197. Lan, B. W., and Dasgupta, S., “Rigid formation control with nonlinear passive actuation”, in *Proceedings of 54th Annual Allerton Conference on Communication, Control, and Computing (Allerton)*, **Invited Paper**, pp. 460 - 466, DOI: 10.1109/ALLERTON.2016.7852267, Monticello, IL 2016.
198. Peiffer, B., Mudumbai, R., Goguri, S., Kruger, A., Dasgupta, S., “Experimental demonstration of nullforming from a fully wireless distributed array”, in *Proceedings of ICASSP*, New Orleans, LA, 2017.
199. Mo, Y., Beal, J., and Dasgupta, S., “Error in Self-Stabilizing Spanning-Tree Estimation of Collective State”, in *Proceedings of 2017 IEEE 2nd International Workshops on Foundations and Applications of Self* Systems (FAS*W)*, Tucson, Az, September 2017.
200. Dasgupta, S., Mudumbai, R., and Kumar, A., “Feedback Control for Distributed Massive MIMO Communication”, **Invited Paper** in the volume *Emerging Applications of Control and System Theory*, Proceedings of a workshop in honor of M. Vidyasagar’s 70th birthday, Dallas, TX, September 2017.
201. Dasgupta, S., “Control of formations: Stepping beyond passivity”, in *Proceedings of Indian Control Conference*, Kanpur, India, January 2018.

202. Xu, W., Yi, J., Dasgupta, S., Cai, J., Jacob, M., and Cho, M., "Separation-Free Super-Resolution from Compressed Measurements is Possible: an Orthonormal Atomic Norm Minimization Approach", in *Proceedings of IEEE International Symposium on Information Theory*, Vail, Co, June 2018.
203. Haug, J., Anjum, M. F., Anderson, B. D. O., Dasgupta, S., Mudumbai, R. and Baidoo-Williams, H. E., "On the Uniqueness of Maximum Likelihood Estimation of Nuclear Sources", in *Proceedings of MTNS*, Hong Kong, July, 2018.
204. Mo, Y., Beal, J., and Dasgupta, S., "An Aggregate Computing Approach to Self-Stabilizing Leader Election", in *Proceedings of 2017 IEEE 2nd International Workshops on Foundations and Applications of Self* Systems (FAS*W)*, September 2018 Trento, Italy.
205. Mo, Y., Dasgupta, S., and Beal, J., "Robust Stability of Spreading Blocks in Aggregate Computing", in *Proceedings of 57th IEEE Conference on Decision and Control (CDC)*, December 2018, Miami Beach, FL.
206. Dasgupta, S., "Control of Formations with Nonlinear Non-Passive Actuation", *Indian Control Conference*, January 2019, New Delhi, India.
207. Paulos, A., Dasgupta, S., Beal, J., Mo, Y., Hoang, K., Lyles, J. B., Pal, P. Schantz, R., Schewe, J., Sitaraman, R., Wald, A., Wayllace, C., and Yeoh, W., "A Framework for Self-Adaptive Dispersal of Computing Services", in *Proceedings of 2019 IEEE 4th International Workshops on Foundations and Applications of Self* Systems (FAS*W)*, 2019, Umea, Sweden.
208. Hoang, K. D., Wayllace, C., Yeoh, W., Beal, J., Dasgupta, S., Mo, Y., Paulos, A., and Schewe, J., "New Distributed Constraint Reasoning Algorithms for Load Balancing in Edge Computing", in *Proceedings of the 22nd International Conference on Principles and Practice of Multi-Agent Systems*, 2019, Torino, Italy.
209. Hoang, K. D., Wayllace, C., Yeoh, W., Beal, J., Dasgupta, S., Mo, Y., Paulos, A., and Schewe, J., "New distributed constraint satisfaction algorithms for load balancing in edge computing: A feasibility study", in *10th International Workshop on Optimization in Multiagent Systems (OptMAS)*, 2019.
210. Anderson, B. D. O., Dasgupta, S., Baidoo-Williams, H. E., Anjum, M. F., and Mudumbai, R., "Unique Maximum Likelihood Localization of Nuclear Sources", in *Proceedings of 58th IEEE Conference on Decision and Control (CDC)*, December 2019, Nice, France.
211. Mo, Y., Dasgupta, S., and Beal, J., "Global Uniform Asymptotic Stability of a Generalized Adaptive Bellman-Ford Algorithm", in *Proceedings of 58th IEEE Conference on Decision and Control (CDC)*, December 2019, Nice, France.
212. Y. Mo, G. Audrito, S. Dasgupta and J. Beal, "A Resilient Leader Election Algorithm Using Aggregate Computing Blocks", in *Proceedings of IFAC World Congress*, Berlin, Germany, 2020.
213. H. Zainab, G. Audrito, S. Dasgupta and J. Beal, "Improving Collection Dynamics by Monotonic Filtering", in *Proceedings of eCAS*, Washington D. C., 2020.
214. C. Schwarz, H. Zainab, S. Dasgupta and J. Kahl, "Heartbeat Measurement with Millimeter Wave Radar in the Driving Environment", in *Proceedings of 2021 IEEE Radar Conference*, May 2021.

215. A. Paulos, S. Dasgupta, J. Beal, Y. Mo, J. Schewe, A. Wald, P. Pal, R. Schantz and J. Bryan Lyles “Priority-enabled Load Balancing for Dispersed Computing”, in *5th IEEE International Conference on Fog and Edge Computing 2021*, May 2021, Melbourne, Australia.
216. H. Zainab, G. Audrito, S. Dasgupta and J. Beal, “Effect of Monotonic Filtering on Collection Dynamics”, in *Proceedings of eCAS*, Washington D. C., 2021.
217. Mo, Y., Dasgupta, S. and Beal, J., “A Lyapunov analysis of a most probable path algorithm”, in *Proceedings of Conference on Decision and Control*, December 2021.
218. Mo, Y., Yu, C., and Dasgupta, S., “Improved small gain conditions for input-to-state stability with respect to measurement functions: Discrete time networked system,” in *Proceedings of Conference on Decision and Control*, December 2021.

Invited Talks in Conferences Without Proceedings

1. Panel discussion on “the most important issues in adaptive signal processing” 1987, Midwest Conference on Circuits and Systems.
2. Dasgupta, S., Garnett, J.S. and Johnson, C.R., Jr., “Robust stability techniques in Signal Processing”, *Workshop on Robust Control*, San Antonio, March, 1991.⁹
3. Dasgupta, S., “Stability analysis via Passivity analysis”, US- Russia Workshop on Robust Control, **Keynote talk**, Madison, WI, November, 1995¹⁰.
4. Dasgupta, S., Fu, M. and Schwarz, C., “Worst case H_2 -Norm of uncertain transfer functions”, *IFAC International Workshop on Robust Control*, Napa Valley, July, 1996.
5. “Multirate Systems and Robust Control”, **Plenary Talk** 7/99, IFAC Workshop on New directions in Uncertain Systems, Hong Kong.
6. Panel discussion on “New Directions in Robust Control”, 7/99, IFAC Workshop on New directions in Uncertain Systems, Hong Kong.
7. “Robust Equalization of Nonlinear Channels”, 12/00, Workshop on Robust Control, Newcastle, Australia.
8. “Identification for Wireless Control”, 7/02, IFAC Workshop on Uncertain Systems, Cascais, Portugal.
9. “Maintaining Formations with a Directed Information Structure and Cycles”, 7/09, B. R. Barmish, 60th birthday workshop, St. Louis, MO, USA.
10. “Consensus Based Carrier Synchronization in a Two Node Network”, 12/10, B. D. O. Anderson, 70th birthday workshop, Atlanta, GA, USA.
11. “Distributed beam and nullforming for distributed MIMO”, Plenary talk CSIP, Beijing China, July 2013.

Other Invited Colloquia

⁹Organizers met partial expenses.

¹⁰Organizers met full expenses.

1. "Adaptive Identification of Partially Known Systems," University of Illinois, Nov. 1984.
2. "Adaptive Identification of Partially Known Systems," University of Notre Dame, February 1985.
3. "On the Behaviour of the Ssign-Sign Algorithm," Cornell University, August 1985.
4. "Construction of SPR Transfer Functions," Australian National University, August 1986.
5. "Kharitonov's Theorem and SPR Transfer Functions," University of Illinois, Nov. 1986.
6. "An Approach to Bounded Noise Adaptive Identification," Cornell University, August 1987.
7. "Adaptive Identification with Time Varying Forgetting Factors," University of Minnesota, July 1987.
8. "Adaptive Identification of Partially Known Systems," Universite Catholique de Louvain, Belgium, May 1989.
9. "Convergence of an Adaptive Algorithm With Hard Nonlinearities," ETH Zurich, July 1989.
10. "Characterizing Strict Positive Realness," GRECO Workshop, Grenoble, France, September 1989.
11. "Strict Positive Realness in Adaptive Systems," Universite Catholique de Louvain, Belgium, September 1989.
12. "Robust Stability Under a Class of Nonlinear Parameterization", University of Illinois, Urbana, March 1990.
13. "On Robust Strict Positive Realness", University of Notre Dame, Notre Dame, March 1990.
14. "Robust Stability Under a Class of Nonlinear Parameterization", Australian National University, July, 1990.
15. "Persistent Excitation in Bilinear Systems" Australian National University, July, 1990.
16. "Neural Network Solutions to a Graph Theoretic Problem", Australian National University, July, 1990.
17. "Convergence of the Signed Error Output Error Algorithm", Australian National University, July, 1990.
18. "Nonpositive Hopfield Neural Networks", University of Illinois, Urbana Champaign, April, 1991.
19. "Nonpositive Hopfield Neural Networks", Illinois Institute of Technology, Chicago, October, 1991.
20. "Robust Equalization of Uncertain Channels", Universite Catholique de Louvain, Belgium, May, 1992.
21. "Minimality, Stabilizability and Strong Stabilizability of Uncertain Systems", University of Wisconsin, Madison, October, 1992.

22. "Neural Networks in Control", Department of Mechanical Engineering, The University of Iowa, December 1993.
23. "Minimality, Stabilizability and Strong Stabilizability of Uncertain Systems", Australian National University, Canberra, Australia, March, 1994.
24. "Robustness of Control Systems", Institute of Engineers, Canberra, Australia, April, 1994.
25. "Minimality, Stabilizability and Strong Stabilizability of Uncertain Systems", Melbourne University, Melbourne, Australia, June, 1994.
26. "Convergence of the Signed Error Output Error Algorithm", University of Newcastle, Newcastle, Australia, June, 1994.
27. " H_2 -norm of Uncertain Systems", Iowa State University, April 1995.
28. "Optimum Biorthogonal Subband Coding", Indian Institute of Science, January 1998.
29. "Optimum Subband Coding of Cyclostationary Signals", Indian Institute of Science, July 1999.
30. "Optimum Subband Coding of Cyclostationary Signals", Australian National University, August 1999.
31. "A Novel Channel Identification Method for Fast Wireless Communication Systems", University of Massachusetts, March 2003.
32. "A Novel Channel Identification Method for Fast Wireless Communication Systems", University of Toronto, April 2004.
33. "Fault tolerant coordinated control of autonomous mobile agents", Australian National University, July 2004.
34. "Fault tolerant coordinated control of autonomous mobile agents with arbitrary trajectories and enhanced scalability", Australian National University, June 2006.
35. "Guaranteed convergence in robust localization", University of California Davis, April 2007.
36. "Some Results on Source Localization", Australian National University, August 2008.
37. "Circumnavigation Using Distance Measurements Under Slow Drift", Australian National University, August 2009.
38. "Optimal sensor placement for source localization", National ICT Australia, Sydney 2010.
39. "On network connectivity", Australian National University, August 2010.
40. "Maintaining Formations with a Directed Information Structure and Cycles", Iowa State University, October 2012.
41. "Distributed beam and nullforming for distributed MIMO", Northeastern University, March 2013.
42. "Distributed beam and nullforming for distributed MIMO", Hangzhou Dianzi University, July 2013.

43. “Distributed beam and nullforming for distributed MIMO”, Zhejiang University, July 2013.
44. “Maintaining Formations with a Directed Information Structure and Cycles”, Beijing Institute of Technology, July 2013.

Other

Gave a short course on “Multirate Signal Processing”, at the Indian Space Research Organization, Ahmedabad, India, January 1999.