## CURRICULUM VITAE ASUMAN OZDAGLAR

Class of 1943 Career Development Professor Associate Professor Electrical Engineering and Computer Science Department, 32-D630 Massachusetts Institute of Technology 77 Massachusetts Avenue, Cambridge, MA 02139

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#### **PERSONAL**

DATE OF BIRTH: December 16, 1974

NATIONALITY: Turkish, US.

#### **EDUCATION:**

INSTITUTION	DEGREE	DATE
Middle East Technical University	BS, EE	1996
MIT	SM	1998
MIT	PhD	2003

## TITLE OF DOCTORAL THESIS:

Pseudonormality and a Lagrange Multiplier Theory for Constrained Optimization

#### PROFESSIONAL EXPERIENCE

#### ACADEMIC POSITIONS

2003-2007 Assistant Professor of EECS, M.I.T.

2007-2008 Associate Professor of EECS (without tenure), M.I.T.
2008-present Associate Professor of EECS (with tenure), M.I.T.

#### FIELDS OF INTEREST

Nonlinear and Convex Optimization: Theory and Algorithms, Game Theory,

Social and Economic Networks: Learning, Information Dynamics, and Influence, Network Economics: Pricing, Investment, and Resource Allocation Games,

Network Resource Allocation: Wireline, Wireless, and Optical Networks.

#### AWARDS AND GRANTS

#### AWARDS, PRIZES AND HONORS:

Bulent Kerim Altay prize (METU-TURKEY)	1993-1996
NATO Science Fellow	1996
Microsoft Fellow	2001
Graduate Student Council Teaching Award- MIT School of Engineering	2004
Provost Award	2005
Sundarum Seshu Scholar at the Coordinated Science Lab., UIUC,	2005
Inaugural lecture.	
NSF CAREER Award	2005
Class of 1943 Career Development Chair	2006
AACC Donald P. Eckman Award	2008
Kavli Fellow of the National Academy of Sciences	2011

#### **GRANTS**

#### Current Research Grants:

- 1. NSF Career Grant, "Distributed Multiagent Control and Optimization: Where Game Theory Meets Network Optimization"
- 2. Provost award.
- 3. MIT Intelligence Initiative, "When are Groups More Intelligent than Individuals?" joint with Prof. Pentland (MIT).
- 4. Draper, "Opinion Formation and Influence in Conflict Situations: The Role of Networks," joint with Profs. Barnhart and Christia (MIT).
- 5. NSF, "Novel Game-Theoretic Tools and Solution Concepts with Applications to Network Dynamics and Control," joint with Prof. Parrilo (MIT).
- 6. NSF, "An Analytic Framework for Political and Social Change: Conflict, Beliefs, and Dynamics," joint with Profs. Acemoglu, Dahleh, Shah (MIT).
- 7. AFOSR, "Dynamics of Beliefs, Culture, and Social Interactions," joint with Profs. Acemoglu, Dahleh (MIT), Shamma (Gatech).
- 8. AFOSR MURI, "Distributed Learning and Information Dynamics in Networked Autonomous Systems," joint with Profs. Shamma, Balcan (Gatech), Abed, Baras, Martins (UMaryland), Young (UOxford), Dahleh, Kaelbling (MIT).

- 9. ARO, "Game-Theoretic Models of Social Conflict," joint with Prof. Acemoglu (MIT).
- 10. DARPA, ITMANET, "Fundamental Limits of Wireless Networks," joint with Profs. Goldsmith, Boyd, Johari (Stanford), Effros (Caltech), Coleman, Meyn, Moulin (UIUC), Medard, Shah, Zheng (MIT).

## Past Research Grants:

- 1. NSF, "Optimization and Control of Stochastic Wireless Networks," joint with Prof. Parrilo (MIT).
- 2. DARPA, CBMANET, "Control of Mobile Ad-hoc Networks," joint with Prof. Medard (MIT).
- 3. AFOSR, "Control Theoretic Modeling for Uncertain Cultural Attitudes and Unknown Adversarial Intent," joint with Profs. Shamma (Gatech), Dahleh (MIT).
- 4. NSF, "Future Optical Network Architectures," joint with Profs. Chan, Shah (MIT).

#### PROFESSIONAL SERVICE

Activity	Beginning	Ending
Program Committee:		
Agent-Mediated Electronic Commerce (AMEC) VI workshop	2004	2004
International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt)	2005	2006
Economics of Networked-Systems Workshop (NetEcon)	2006	2006
IEEE International Conference on Computer Communications (INFOCOM)	2006	2007
2 <sup>nd</sup> International Conference on Complementarity, Duality, and Global Optimization in Science and Engineering (CDGO)	2006	2007
ACM Conference on Electronic Commerce (EC)	2006	2007
2 <sup>nd</sup> International Workshop on Game Theory in	2008	2008
Communication Networks	2000	2000
International Conference on Game Theory in Networks	2009	2009
Information Theory Workshop (ITW)	2009	2009
2 <sup>nd</sup> International Symposium on Algorithmic Game Theory (SAGT)	2009	2009
American Control Conference (ACC)	2010	2010
6th Spain, Italy, and Netherlands meeting on Game Theory (SING 6)	2010	2010
International Conference on Control and Optimization with Industrial Applications (COIA)	2011	2011
Conference Organizer:		
Co-organizer, Conference on Frontiers in Game Theory and	2008	2008

Networked-Systems, MIT		
Co-chair, 1st IFAC Workshop on Estimation and Control of	2009	2009
Networked Systems (NecSys'09)		
Organizing Committee Member, Workshop on the Frontiers	2010	2010
of Controls, Games and Network Science, UT Austin		
Scientific Committee Member, Lund Center for Control of	2010	2010
Complex Engineering Systems, Thematic Program of Spring		
2010: Distributed Decision-Making and Control.		
Co-chair, Workshop on the Economics of Networks, Systems,	2011	2011
and Computation (NetEcon 11)		
Co- organizer, Workshop on Information and Decisions	2011	2011
in Social Networks, LIDS		
Session/Cluster Organizer:		
Session Organizer INFORMS	2005 2007	

Session Organizer, INFORMS	2005, 2007	
Session Organizer, IEEE Conference on Decision and	2005-2008, 20	10-2011
Control (CDC)		
Session Organizer, 2 <sup>nd</sup> International Conference on	2007	2007
Complementarity, Duality, and Global Optimization in Science		
and Engineering		
Session Organizer, 22 <sup>nd</sup> European Conference on Operational	2007	2007
Research: Nonsmooth Optimization, Theory, Algorithms, and		
Applications		
Session Organizer, Joint EUROPT-OMS meeting	2007	2007
Session Organizer, 2 <sup>nd</sup> International Conference on	2007	2007
Continuous Optimization		
Session Organizer, SIAM Conference on Optimization	2008	2008
Session Organizer, INFORMS Optimization Society	2008	2008
Conference		
Session Organizer, IEEE Information Theory Workshop	2009	2009
(ITW)		
Game Theory Cluster Chair, INFORMS	2009	2009
Game Theory Cluster Co-chair, International Symposium on	2009	2009
Mathematical Programming (ISMP)		
Session Organizer, International Conference on Game Theory	2009	2009
for Networks (GameNets)		

# Other:

Committee Member, George Nicholson Student Prize	2007, 2009	
Competition		
Associate Editor, (Optimization Theory, Algorithms and	2008	present
Applications for the Asia-Pacific Journal of Operational		
Research (APJOR))		
Chair of the Working Group "Game-Theoretic Methods in	2009	present

Networks" under the Technical Committee "Networks		
and Communications Systems" of the IEEE Control		
Systems Society		
Advisory Board Member of the Institute for Computer	2009	present
Sciences, Social-Informatics and Telecommunications		
Engineering (ICST) Transactions on Network Optimization		
and Control		
Member of Control System Society Board of Governors	2010	2010
Panel Member, NSF	2005, 2006	, 2007, 2008, 2009
Participant, ARO Network Science Division Planning	2010	2010
Strategy Workshop		
Participant, ARO Workshop on Reasoning in Adversarial	2010	2010
and Noncooperative Environments		

Reviewer for IEEE Transactions (on Automatic Control, Information Theory, Journal on Selected Areas in Communication, Networking, and Signal Processing), Operations Research, Mathematics of Operations Research, Optimization Methods and Software, Computational Optimization and Applications, Management Science, SIAM Journal on Optimization, Games and Economic Behavior.

#### PATENTS AND PATENT APPLICATIONS PENDING

A. Ozdaglar and D. P. Bertsekas, "Routing and Wavelength Assignment in Optical Networks," US Serial No. 60/295,941, June 2001.

A. Eryilmaz, M. Medard, and A. Ozdaglar, "A Method for Coding-based, Delay Efficient Data Transmission", April 2006.

#### **PUBLICATIONS**

#### **Book and Book Chapters:**

- 1. Bertsekas, D.P., A. Nedic, and A. Ozdaglar, *Convex Analysis and Optimization*, Athena Scientific, 2003.
- 2. Ozdaglar, A. and R. Srikant, "Pricing and Incentives in Communication Networks", *Algorithmic Game Theory*, Noam Nisan, Tim Roughgarden, Eva Tardos, and Vijay Vazirani, editors, Cambridge University Press, pp. 571-592, 2007.
- 3. Nedic, A. and A. Ozdaglar, "Cooperative Distributed Multi-agent Optimization," *Convex Optimization in Signal Processing and Communications*, Yonina Eldar and Daniel Palomar, editors, Cambridge University Press, pp. 340-386, 2008.
- 4. Zhao, F., M. Medard, D.S. Lun, and A. Ozdaglar, "Minimum Cost Subgraph Algorithms for Static and Dynamic Multicasts with Network Coding," *Directions in Wireless Communications*, Vahid Tarokh, editor, Springer, pp. 317-349, 2009.
- 5. Menache, I. and A. Ozdaglar, "Network Games: Theory, Models, and Dynamics," Synthesis Lecture, Jean Walrand, editor, Morgan and Claypool Publishers, 177 pages, 2011.

## Papers in Refereed Journals

- 1. Bertsekas, D.P. and A. Ozdaglar, "Pseudonormality and a Lagrange Multiplier Theory for Constrained Optimization," *Journal of Optimization Theory and Applications*, vol. 114, pp. 287-343, 2002.
- 2. Ozdaglar, A. and D.P. Bertsekas, "Routing and Wavelength Assignment in Optical Networks," *IEEE Transactions on Networking*, vol. 11, no. 2, pp. 259-272, 2003.
- 3. Ozdaglar, A. and D.P. Bertsekas, "Optimal Solution of Integer Multicommodity Flow Problems with Application in Optical Networks," *Frontiers in Global Optimization, Nonconvex Optim. Appl.*, 74, Kluwer Acad. Publ., pp. 411-435, 2004.
- 4. Ozdaglar, A. and D.P. Bertsekas, "The Relation between Pseudonormality and Quasiregularity in Constrained Optimization," *Optimization Methods and Software, special issue in honor of Olvi Mangasarian*, vol. 19, pp. 493-506, 2004.
- 5. Ozdaglar, A. and P. Tseng, "Existence of Global Minima for Constrained Optimization," *Journal of Optimization Theory and Applications*, vol. 128, no. 3, 27 pages, 2006.
- 6. Bertsekas, D.P., A. Ozdaglar, and P. Tseng, "Enhanced Fritz John Conditions for Convex Programming," *SIAM Journal on Optimization*, vol. 16, pp. 766-797, 2006.
- 7. Huang, X., A. Ozdaglar and D. Acemoglu, "Efficiency and Braess' Paradox under Pricing in General Networks," *IEEE Journal on Selected Areas in Communication, special issue on Price-Based Access Control and Economics*, vol. 24, no. 5, pp. 977-991, May 2006.
- 8. Acemoglu, D. and A. Ozdaglar, "Competition and Efficiency in Congested Markets," *Mathematics of Operations Research*, vol. 32, no. 1, pp. 1-31, February 2007.
- 9. Simsek, A., A. Ozdaglar and D. Acemoglu, "Generalized Poincare-Hopf Theorem for Compact Nonsmooth Regions," *Mathematics of Operations Research*, vol. 32, no. 1, pp. 193-214, February 2007.
- 10. Nedic, A. and A. Ozdaglar, "A Geometric Framework for Nonconvex Optimization Duality using Augmented Lagrangian Functions," *Journal of Global Optimization*, vol. 40, no. 4, pp. 545-573, 2008.
- 11. Nedic, A., A. Ozdaglar, and A. Rubinov, "Abstract Convexity for Nonconvex Optimization Duality," *Optimization*, vol. 56, pp. 1-20, 2007.
- 12. Acemoglu, D., R. Johari, and A. Ozdaglar, "Partially Optimal Routing," *IEEE Journal on Selected Areas in Communications, special issue on Non-cooperative Behavior in Networking*, vol. 25, no. 6, pp. 1148-1160, August 2007.
- 13. Acemoglu, D. and A. Ozdaglar, "Competition in Parallel-Serial Networks," extended version of the INFOCOM 2006 paper, selected for fast-track to *IEEE Journal on Selected Areas in Communications, special issue on Non-cooperative Behavior in Networking*, vol. 25, no. 6, pp. 1180-1192, August 2007.
- 14. Tang, A.K., A. Simsek, A. Ozdaglar, and D. Acemoglu, "On the Stability of P-matrices," *Linear Algebra and its Applications*, vol. 426, pp. 22-32, 2007.
- 15. Ozdaglar, A., "Price Competition with Elastic Traffic," published in *Networks, special issue on Games, Interdiction, and Human Interaction Problems on Networks*, vol. 52, no. 3, pp. 141-155, 2008.

- 16. Simsek, A., A. Ozdaglar and D. Acemoglu, "Local Indices for Degenerate Variational Inequalities," *Mathematics of Operations Research*, vol. 33, no. 2, pp. 291-301, May 2008.
- 17. Nedic, A. and A. Ozdaglar, "Separation of Nonconvex Sets with General Augmenting Functions," *Mathematics of Operations Research*, vol. 33, no. 3, pp. 587-605, August 2008.
- 18. Nedic, A. and A. Ozdaglar, "Distributed Subgradient Methods for Multi-agent Optimization," *IEEE Transactions on Automatic Control*, vol. 54, no. 1, pp. 48-61, 2009.
- 19. Stein, N., A. Ozdaglar, and P.A. Parrilo, "Separable and Low-Rank Continuous Games," *International Journal of Game Theory*, vol. 37, no. 4, pp. 475-504, 2008.
- 20. Shakkottai, S., R. Srikant, A. Ozdaglar, and D. Acemoglu, "The Price of Simplicity," *IEEE Journal on Selected Areas in Communications, special issue on Game Theory*, vol. 26, no. 7, pp. 1269-1276, 2008.
- 21. Nedic, A. and A. Ozdaglar, "Convergence Rate for Consensus with Delays," *LIDS report* 2774, *Journal of Global Optimization*, vol. 47, no. 3, pp. 437-456, 2010.
- 22. Acemoglu, D., K. Bimpikis, and A. Ozdaglar, "Price and Capacity Competition," *Games and Economic Behavior*, vol. 66, no. 1, pp. 1-26, May 2009.
- 23. Eryilmaz, A., A. Ozdaglar, M. Medard and E. Ahmed, "On the Delay and Throughput Gains of Coding in Unreliable Networks," *LIDS report* 2765, *IEEE Transactions on Information Theory*, vol. 54, no. 12, pp. 5511-5524, 2008.
- 24. Nedic, A. and A. Ozdaglar, "Subgradient Methods for Saddle Point Problems," *LIDS report* 2764, *Journal of Optimization Theory and Applications*, vol. 142, no. 1, pp. 205-228, 2009.
- Nedic, A. and A. Ozdaglar, "Approximate Primal Solutions and Rate Analysis for Dual Subgradient Methods," *LIDS report* 2753, *SLAM Journal on Optimization*, vol. 19, no. 4, pp. 1757-1780, 2009.
- 26. Nedic, A., A. Olshevsky, A. Ozdaglar, and J.N. Tsitsiklis, "On Distributed Averaging Algorithms and Quantization Effects," *LIDS report* 2778, *IEEE Transactions on Automatic Control*, vol. 54, no. 11, pp. 2506-2517, 2009.
- Nedic, A., A. Ozdaglar, and P.A. Parrilo, "Constrained Consensus and Optimization for Multiagent Networks," *LIDS report* 2779, *IEEE Transactions on Automatic Control*, vol. 55, no. 4, pp. 922-938, 2010.
- 28. Parandehgheibi, A., A. Eryilmaz, A. Ozdaglar, and M. Medard, "On Resource Allocation in Fading Multiple Access Channels An Efficient Approximate Projection Approach," *LIDS report* 2787, *IEEE Transactions on Information Theory*, vol. 56, no. 9, pp. 4417-4437, 2010.
- 29. Eryilmaz, A., A. Ozdaglar, D. Shah, and E. Modiano, "Distributed Randomized Algorithms for the Optimal Control of Wireless Networks," *IEEE Transactions on Networking*, vol. 18, no. 2, pp. 638-651, 2010.
- 30. Acemoglu, D., A. Ozdaglar, and A. ParandehGheibi, "Spread of (Mis)information in Social Networks," *Games and Economic Behavior*, vol. 70, no. 2, pp. 194-227, 2010.
- 31. Lobel, I. and A. Ozdaglar, "Distributed Subgradient Methods over Random Networks," *IEEE Transactions on Automatic Control*, DOI: 10.1109/TAC.2010.2091295, 28 pages, 2010.
- 32. Acemoglu, D., K. Bimpikis, and A. Ozdaglar, "Experimentation, Patents, and Innovation," *American Economic Journal: Microeconomics*, vol. 3, no. 1, pp. 37-77, 2011.

- 33. Acemoglu D. and A. Ozdaglar, "Opinion Dynamics and Learning in Social Networks," LIDS report 2851, inaugural issue of *Dynamic Games and Applications*, DOI: 10.1007/s13235-010-0004-1, 61 pages, 2010.
- 34. Stein, N., P.A. Parrilo, and A. Ozdaglar, "Correlated Equilibria in Continuous Games: Characterization and Computation," LIDS report 2805, *Games and Economic Behavior*, DOI:10.1016/j.geb.2010.04.004, 41 pages, 2010.
- 35. Acemoglu, D., M. Dahleh, I. Lobel, and A. Ozdaglar, "Bayesian Learning in Social Networks," *LIDS report* 2780, to appear in *Review of Economic Studies*, 53 pages, 2010.
- 36. Lu, Y., A. Ozdaglar, and D. Simchi-Levi, "A Dynamic Programming Approach to Buying a Large Block of Security with Adaptive Safe Price," to appear in *Operations Research Letters*, 13 pages, 2010.
- 37. Stein, N., A. Ozdaglar, and P.A. Parrilo, "Structure of Extreme Correlated Equilibria: A Zero-Sum Example and Its Implications," *International Journal of Game Theory*, DOI: 10.1007/s00182-010-0267-1, 19 pages, 2010.
- 38. Goldsmith, A., M. Effros, R Koetter, M. Medard, A. Ozdaglar, L. Zheng, "Beyond Shannon: The Quest for Fundamental Performance Limits of Wireless Ad Hoc Networks," to appear in *IEEE Communications Magazine*, 19 pages, 2010.
- 39. ParandehGheibi, A, M. Medard, A. Ozdaglar, and S. Shakkottai, "Avoiding Interruptions a QoE Reliability Function for Streaming Media Applications," to appear in *IEEE Journal on Selected Areas in Communications, special issue on Trading Rate for Delay at the Transport and Application Layers*, 11 pages, 2010.
- 40. Chen, W., D. Traskov, M. Heindlmaier, M. Medard, S. Meyn, and A. Ozdaglar, "Coding and Control for Communication Networks", *Queuing Systems, Erlang Centennial Issue*, vol. 63, pp. 195-216, 2010.
- 41. Marbach, P., A. Eryilmaz, and A. Ozdaglar, "Asynchronous CSMA Policies in Multihop Wireless Networks with Primary Interference Constraints," to appear in *IEEE Transactions on Information Theory*, 31 pages, 2010.
- 42. Lobel, I., A. Ozdaglar, and D. Feijer, "Distributed Multi-agent Optimization with State-Dependent Communication," LIDS report 2834, to appear in *Mathematical Programming, special issue in honor of Paul Tseng*, 46 pages, 2010.
- 43. Candogan, O., I. Menache, A. Ozdaglar, and P.A. Parrilo, "Flows and Decompositions of Games: Harmonic and Potential Games," to appear in *Mathematics of Operations Research*, 2010.

#### Proceedings of Refereed Conferences

- 1. Ozdaglar, A., J.H. Shapiro, and W.M. Wells, "Model-based object recognition using laser radar range imagery," *Proc. of SPIE*, vol. 3718, pp. 256-266, 1999.
- 2. Ozdaglar, A., J.H. Shapiro, and M.I. Miller, "Performance analysis for ground-based target orientation estimation: FLIR/RADAR sensor fusion," *Proc. of Asilomar Conference on Signals, Systems, and Computers*, pp. 1240-1244, Oct. 1999.

- 3. Bertsekas, D.P. and A. Ozdaglar, "Enhanced Optimality Conditions and Exact Penalty Functions," *Proc. of Allerton* Conference on Communication, Control, and Computing, 14 pages, 2000.
- 4. Acemoglu, D., A. Ozdaglar and R. Srikant, "The Marginal User Principle for Resource Allocation in Wireless Networks," *Proc. of IEEE Conference on Decision and Control (CDC)*, vol. 2, pp. 1544-1549, 2004.
- 5. Ozdaglar, A. and D. Acemoglu, "Price of Anarchy with Competing Providers for a General Demand Model," <u>invited paper</u>, *Proc. of Allerton Conference on Communication, Control, and Computing*, 10 pages, 2005.
- 6. Simsek, A., A. Ozdaglar, and D. Acemoglu, "Uniqueness of Generalized Equilibrium for Box-Constrained Problems and Applications," *Proc. of Allerton Conference on Communication, Control, and Computing*, 10 pages, 2005.
- 7. Acemoglu, D. and A. Ozdaglar, "Price Competition for General Topologies," *Proc. of International Conference on Computer Communications (INFOCOM)*, 12 pages, 2006.
- 8. Eryilmaz, A., A. Ozdaglar, and M. Medard, "On Delay Performance Gains from Network Coding," invited paper, Proc. of Conference on Information Sciences and Systems (CISS), 6 pages, 2006.
- 9. Acemoglu, D., R. Johari, and A. Ozdaglar, "Paradoxes of Traffic Engineering with Partially Optimal Routing," invited paper, *Proc. of Conference on Information Sciences and Systems (CISS)*, 7 pages, 2006.
- 10. Huang, X. and A. Ozdaglar, "Power Control and Network Design in Mobile Sensor Networks," *Proc. of Intl. Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WIOPT)*, 9 pages, 2006.
- 11. Ebad, A., A. Eryilmaz, A. Ozdaglar, and M. Medard, "Economic Aspects of Network Coding," invited paper, Proc. of Allerton Conference on Communication, Control, and Computing, 10 pages, 2006.

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- 12. Acemoglu, D., K. Bimpikis, and A. Ozdaglar, "Price and Capacity Competition Partial Results," <u>invited paper</u>, *Proc. of Allerton Conference on Communication, Control, and Computing*, 10 pages, 2006.
- 13. Stein, N., A. Ozdaglar, and P.A. Parrilo, "Separable and Low-Rank Games," *Proc. of IEEE Conference on Decision and Control (CDC)*, 7 pages, 2006.
- 14. Eryilmaz, A., E. Modiano, and A. Ozdaglar, "Distributed Control for Throughput-Optimality and Fairness in Wireless Networks," *Proc. of IEEE Conference on Decision and Control (CDC)*, 6 pages, 2006.
- 15. Eryilmaz, A., A. Ozdaglar, and E. Modiano, "Polynomial Complexity Algorithms for Full Utilization of Multi-hop Wireless Networks," *Proc. of International Conference on Computer Communications (INFOCOM)*, 9 pages, 2007.
- 16. Ahmed, E., A. Eryilmaz, M. Medard, and A. Ozdaglar, "On the Scaling Laws of Network Coding Gains in Wireless Networks," *Proc. of International Conference for Military Communications (MILCOM)*, 7 pages, 2007.
- 17. Eryilmaz, A., A. Ozdaglar, and P. Marbach, "A Randomized Scheduler for Interference-Limited Networks," invited paper, *Proc. of Asilomar Conference on Signals, Systems, and Computers,* 5 pages, 2007.

- 18. Parandehgheibi, A., A. Ozdaglar, M. Medard, and A. Eryilmaz, "Utility Maximization for Wireless Networks," invited paper, Proc. of Asilomar Conference on Signals, Systems, and Computers, 5 pages, 2007.
- 19. Bimpikis, K. and A. Ozdaglar, "Price Competition with Atomic Users," invited paper, Proc. of Asilomar Conference on Signals, Systems, and Computers, 5 pages, 2007.
- 20. Shakkottai, S., R. Srikant, A. Ozdaglar, and D. Acemoglu, "The Price of Simplicity," <u>invited paper</u>, *Proc. of Asilomar Conference on Signals, Systems, and Computers*, 5 pages, 2007.
- 21. Lobel, I., D. Acemoglu, M. Dahleh, and A. Ozdaglar, "Social Learning in Networks," *Proc. of Workshop on Interdisciplinary Systems Approach in Performance Evaluation and Design of Computer and Communication Systems*, 6 pages, 2007.
- 22. Marbach, P., A. Eryilmaz, and A. Ozdaglar, "Capacity-Achieving Random Access Schedulers for Dense Networks," invited paper, *Proc. of IEEE Conference on Decision and Control (CDC)*, 6 pages, 2007.
- 23. Lobel, I., D. Acemoglu, M. Dahleh, and A. Ozdaglar, "Social Learning with Partial Observations," invited paper, *Proc. of IEEE Conference on Decision and Control (CDC)*, 6 pages, 2007.
- 24. Nedic, A. and A. Ozdaglar, "On the Rate of Convergence of Distributed Subgradient Methods for Multi-agent Optimization," *Proc. of IEEE Conference on Decision and Control (CDC)*, 6 pages, 2007.
- Stein, N., P.A. Parrilo, and A. Ozdaglar, "Characterization and Computation of Correlated Equilibria in Infinite Games," invited paper, Proc. of IEEE Conference on Decision and Control (CDC), 6 pages, 2007.
- 26. Ozdaglar, A., "Constrained Consensus and Alternating Projections," invited paper, Proc. of Allerton Conference on Communication, Control, and Computing, 10 pages, 2007.
- 27. Zhao, F., M. Medard, D. Lun, and A. Ozdaglar, "Convergence Rates of Min-cost Subgraph Algorithms for Multicast in Coded Networks," <u>invited paper</u>, *Proc. of Allerton Conference on Communication, Control, and Computing*, 10 pages, 2007.
- 28. Parandehgheibi, A., A. Eryilmaz, A. Ozdaglar, and M. Medard, "Dynamic Rate Allocation in Fading Multiple Access Channels," invited paper, Proc. of Information Theory and Application Workshop (ITA), 9 pages, 2008.
- 29. Parandehgheibi, A., A. Eryilmaz, A. Ozdaglar, and M. Medard, "Rate Allocation in Fading Multiple Access Channel," *Proc. of Intl. Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WIOPT),* 8 pages, 2008.
- 30. Nedic, A. and A. Ozdaglar, "Subgradient Methods in Network Resource Allocation: Rate Analysis," invited paper, Proc. of Conference on Information Sciences and Systems (CISS), 6 pages, 2008.
- 31. Eryilmaz, A., A. Ozdaglar, D. Shah, and E. Modiano, "Imperfect Randomized Algorithms for the Optimal Control of Wireless Networks," <u>invited paper</u>, *Proc. of Conference on Information Sciences and Systems (CISS)*, 6 pages, 2008.
- 32. Acemoglu, D., M. Dahleh, I. Lobel, and A. Ozdaglar "Bayesian Learning on a Line Topology," *Proc. of American Congress on Operations Research (CLAIO)*, 3 pages, 2008.

- 33. Bliman, P.A., A. Nedic, and A. Ozdaglar, "Rate of Convergence for Consensus with Delays," invited paper, *Proc. of IEEE Conference on Decision and Control (CDC)*, 6 pages, 2008.
- 34. Nedic, A., A. Olshevsky, A. Ozdaglar, and J.N. Tsitsiklis, "Distributed Subgradient Methods and Quantization Effects," <u>invited paper</u>, *Proc. of IEEE Conference on Decision and Control (CDC)*, 7 pages, 2008.
- 35. Stein, N., A. Ozdaglar, and P.A. Parrilo, "Convergent Adaptive Discretization Methods for Computing Correlated Equilibria of Polynomial Games," *Proc. of IEEE Conference on Decision and Control (CDC)*, 5 pages, 2008.
- 36. Bethke, B., J.P. How, and A. Ozdaglar, "Approximate Dynamic Programming using Support Vector Regression," *Proc. of IEEE Conference on Decision and Control (CDC)*, 8 pages, 2008.
- 37. Acemoglu, D., A. Nedic, and A. Ozdaglar, "Convergence of Rule-of-Thumb Learning Rules in Social Networks," *Proc. of IEEE Conference on Decision and Control (CDC)*, 7 pages, 2008.
- 38. Nedic, A., A. Olshevsky, A. Ozdaglar, and J.N. Tsitsiklis, "On Distributed Averaging Algorithms and Quantization Effects," invited paper, Proc. of IEEE Conference on Decision and Control (CDC), 7 pages, 2008.
- 39. ParandehGheibi A., M. Medard, A. Ozdaglar, and A. Eryilmaz, "Information Theory vs. Queueing Theory for Resource Allocation in Multiple Access Channels", invited paper, Proc. of Personal, Indoor and Mobile Radio Communications (PIMRC), 5 pages, 2008.
- 40. Lobel, I. and A. Ozdaglar, "Convergence Analysis of Distributed Subgradient Methods in Random Networks," <u>invited paper</u>, *Proc. of Allerton Conference on Communication, Control, and Computing*, 8 pages, 2008.
- 41. Lobel, I., D. Acemoglu, M. Dahleh, and A. Ozdaglar, "Rate of Convergence of Learning in Social Networks," *Proc. of American Control Conference (ACC)*, 6 pages, 2009.
- 42. Ng, C.T.K., M. Medard, and A. Ozdaglar, "Completion Time Minimization and Robust Power Control in Wireless Packet Networks," *Proc. of IEEE International Conference on Communications (ICC)*, 10 pages, 2009.
- 43. Candogan, U.O., I. Menache, A. Ozdaglar, and P.A. Parrilo, "Competitive Scheduling in Wireless Collision Channels with Correlated Channel State," *Proc. of International Conference on Game Theory for Networks (GameNets)*, 8 pages, 2009.
- 44. Altman, E., I. Menache, and A. Ozdaglar, "Noncooperative Load Balancing in the Continuum Limit of a Dense Network," *Proc. of International Conference on Computer Communications (INFOCOM)*, 12 pages, 2009.
- 45. Menache, I., A. Ozdaglar, R. Srikant, and D. Acemoglu, "Dynamic Online-Advertising Auctions as Stochastic Scheduling," *Proc. of Economics of Networked-Systems Workshop (NetEcon)*, 10 pages, 2009.
- 46. Njoroge, P., A. Ozdaglar, N. Stier-Moses, and G. Weintraub, "Competition, Market Coverage, and Quality Choice in Interconnected Platforms," *Proc. of Economics of Networked-Systems Workshop (NetEcon)*, 13 pages, 2009
- 47. Jadbabaie, A., A Ozdaglar, and M. Zargham, "A Distributed Newton Method for Network Optimization," *Proc. of IEEE Conference on Decision and Control (CDC)*, 8 pages, 2009.

- 48. Yildiz, M.E., R. Pagliari, A. Ozdaglar, and A. Scaglione, "Voting Models in Random Networks," invited paper, *Proc. of Information Theory and Application Workshop (ITA)*, 6 pages, 2010.
- 49. Candogan, U.O., I. Menache, A. Ozdaglar, and P.A. Parrilo, "Near-Optimal Power Control in Wireless Networks: A Potential Game Approach," *Proc. of International Conference on Computer Communications (INFOCOM)*, 9 pages, 2010.
- 50. ParandehGheibi, A, A. Ozdaglar, M. Effros, and M. Medard, "Optimal Reverse Carpooling over Wireless Networks A Distributed Optimization Approach", *Proc. of Conference on Information Sciences and Systems (CISS)*, 6 pages, 2010.
- 51. ParandehGheibi, A, M. Medard, S. Shakkottai, and A. Ozdaglar, "Avoiding Interruptions QoE Trade-offs in Block-coded Streaming Media Applications", *Proc. of IEEE International Symposium on Information Theory (ISIT)*, 8 pages, 2010.
- 52. Acemoglu, D., G. Como, F. Fagnani, and A. Ozdaglar, "Persistence of disagreement in social networks," *Proc. of International Symposium on Mathematical Theory of Networks and Systems (MTNS)*, 2 pages, 2010.
- 53. Acemoglu, D., K. Bimpikis, and A. Ozdaglar, "Forming Information Networks," <u>invited paper</u>, *Proc. of Allerton Conference on Communication, Control, and Computing*, 2 pages, 2010.
- 54. Candogan, O., A. Ozdaglar, and P.A. Parrilo, "A Projection Framework for Near-Potential Games," invited paper, *Proc. of IEEE Conference on Decision and Control (CDC)*, 8 pages, 2010.
- 55. Acemoglu, D., M. Dahleh, A. Ozdaglar, and A. Tahbaz-Salehi, "Observational Learning in an Uncertain World," invited paper, *Proc. of IEEE Conference on Decision and Control (CDC)*, 6 pages, 2010.
- 56. Wei, E., A. Ozdaglar, and A. Jadbabaie, "A Distributed Newton Method for Network Utility Maximization," invited paper, *Proc. of IEEE Conference on Decision and Control (CDC)*, 8 pages, 2010.
- 57. ParandehGheibi, A, M. Medard, A. Ozdaglar, and S. Shakkottai, "Access-Network Association Policies for Media Streaming in Heterogeneous Environments," invited paper, *Proc. of IEEE Conference on Decision and Control (CDC)*, 8 pages, 2010.
- 58. Yildiz, M.E., A. Scaglione, and A. Ozdaglar, "Asymmetric Information Diffusion via Gossiping on Static and Dynamic Networks," <u>invited paper</u>, *Proc. of IEEE Conference on Decision and Control (CDC)*, 7 pages, 2010.
- 59. Candogan, O, K. Bimpikis, and A. Ozdaglar, "Optimal Pricing in the Presence of Local Network Effects," *Proc. of Workshop on Internet and Network Economics (WINE)*, 10 pages, 2010.
- 60. Zargham, M., A. Ribeiro, A. Ozdaglar, and A. Jadbabaie, "Accelerated Dual Descent for Network Optimization," *Proc. of American Control Conference (ACC)*, 8 pages, 2011.
- 61. Hung, B.W.K., S. Kolitz, and A. Ozdaglar, "Optimization-Based Influencing of Village Social Networks in a Counterinsurgency," *Proc. of International Conference on Social Computing, Behavioral-Cultural Modeling, & Prediction (SBP11)*, 5 pages, 2011.
- 62. Yildiz, M.E., D. Acemoglu, A. Ozdaglar, and A. Scaglione, "Diffusion of Innovations on Deterministic Topologies," invited paper, Proc. of International Conference on Acoustics, Speech and Signal Processing (ICASSP), 4 pages, 2011.

63. Menache, I., A. Ozdaglar, and N. Shimkin, "Socially Optimal Pricing of Cloud Computing Resources," *Proc. of International ICST Conference on Performance Evaluation Methodologies and Tools (ValueTools)*, 11 pages, 2011.

## Other Major Publications

- 1. Njoroge, P., A. Ozdaglar, N. Stier-Moses, and G. Weintraub, "Investment in Two Sided Markets and the Net Neutrality Debate," submitted for publication in *Management Science*, 63 pages, 2010.
- 2. Acemoglu, D, A. Ozdaglar, and A. Tahbaz-Salehi, "Cascades in Networks and Aggregate Volatility," LIDS report 2849, submitted for publication in *Econometrica*, 47 pages, 50 pages, 2010.
- 3. Acemoglu, D., K. Bimpikis, and A. Ozdaglar, "Dynamics of Information Exchange in Endogenous Social Networks," submitted for publication in *Review of Economic Studies*, 52 pages, 2010.
- 4. Acemoglu, D., G. Como, F. Fagnani, and A. Ozdaglar, "Opinion Fluctuations and Disagreement in Social Networks," LIDS report 2850, submitted for publication in *Mathematics of Operations Research*, 33 pages, 2010.
- 5. Candogan, O., K. Bimpikis, and A. Ozdaglar, "Optimal Pricing with Network Effects," submitted for publication in *Operations Research*, 29 pages, 2010.
- 6. Yildiz, M.E., D. Acemoglu, A. Ozdaglar, A. Saberi, and A. Scaglione, "Discrete Opinion Dynamics with Stubborn Agents," LIDS report 2858, submitted for publication in *Operations Research*, 48 pages, 2011.
- 7. Ng, C.T.K., M. Medard, and A. Ozdaglar, "Completion Time Minimization and Robust Power Control in Wireless Packet Networks," submitted for publication in *Transactions on Wireless Communications*, 16 pages, 2011.
- 8. Candogan, A. Ozdaglar, and P.A. Parrilo, "Learning in Near-Potential Games," submitted for publication in *Proc. of IEEE Conference on Decision and Control (CDC)*, 8 pages, 2011.
- 9. Acemoglu, D., A. Ozdaglar, and M.E. Yildiz, "Diffusion of Innovations in a Stochastic Linear Threshold Model," submitted for publication in *Proc. of IEEE Conference on Decision and Control (CDC)*, 8 pages, 2011.
- 10. Wei, E., M. Zargham, A. Ozdaglar, and A. Jadbabaie, "On Dual Convergence of the Distributed Newton Method for Network Utility Maximization," submitted for publication in *Proc. of IEEE Conference on Decision and Control (CDC)*, 8 pages, 2011.
- 11. Wei, E., A. Ozdaglar, and A. Jadbabaie, "A Distributed Newton Method for Network Utility Maximization, Part I: Algorithm," Working paper, 2011.
- 12. Wei, E., A. Ozdaglar, and A. Jadbabaie, "A Distributed Newton Method for Network Utility Maximization, Part II: Convergence," Working paper, 2011.

- 13. Stein, N., P.A. Parrilo, and A. Ozdaglar, "A Partial Proof of Nash's Theorem via Exchangeable Equilibria," Working paper, 2011.
- 14. Stein, N., P.A. Parrilo, and A. Ozdaglar, "Exchangeable Equilibria Contradict Exactness of the Papadimitriou-Roughgarden Algorithm," Working paper, 2011.
- 15. Stein, N., A. Ozdaglar, and P.A. Parrilo, "Exchangeable Equilibria, Part I: Symmetric Bimatrix Games." Working paper, 2011.
- 16. Candogan, O, A. Ozdaglar, and P.A. Parrilo, "Dynamics in Near-Potential Games," Working paper, 2011.
- 17. Mani, A., A. Ozdaglar, and A. Pentland, "Bilateral Exchanges in Social Networks," Working paper, 2011.

#### **INVITED LECTURES**

November 2003, "Flow Control and Routing from Service Provider Viewpoint," Operations Research Center, Massachusetts Institute of Technology, invited seminar.

November 2003, "A Lagrange Multiplier Theory for Constrained Optimization," Electrical Engineering Department, California Institute of Technology, invited seminar.

March 2004, "Towards a Game-Theoretic Analysis of Communication Networks," Decision Sciences Group, Fuqua School of Business, Duke University, invited seminar.

October 2004, "Towards a Game-Theoretic Analysis of Communication Networks," Industrial and Systems Engineering Department, Lehigh University, invited seminar.

October 2004, "Price of Anarchy in Price Competition Games," INFORMS, invited talk.

October 2004, "Efficiency and Braess' Paradox under Pricing in General Networks," IEEE Annual Computer Communications Workshop, invited talk.

March 2005, "Competition and Efficiency in Congested Markets," Electrical Engineering Department, California Institute of Technology, invited seminar.

May 2005, "Competition and Efficiency in Congested Markets," University of Waterloo, Mathematical Modeling and Analysis of Communication Networks Workshop, invited speaker.

August 2005, "Differential Topology for the Uniqueness of Critical Points," International Conference on Complementarity, Duality, and Global Optimization in Science and Engineering, invited talk.

August 2005, "Competition and Efficiency in Congested Markets," Coordinated Science Laboratory, UIUC, invited seminar.

September 2005, "Price of Anarchy with Competing Providers for a General Demand Model," Allerton Conference on Communication, Control, and Computing, invited paper.

November 2005, "Competition and Efficiency in Congested Markets," Electrical Engineering Department, Boston University, invited seminar.

November 2005, "Applications of Generalized Poincare Hopf in Network Optimization," INFORMS, invited talk.

March 2006, "Paradoxes of Traffic Engineering with Partially Optimal Routing," Conference on

Information Sciences and Systems (CISS), invited paper.

April 2006, "Economic Incentives and Traffic Engineering in Networked-Systems," MIT Information Technology Conference on "Next Generation Computing and Wireless Networks", invited speaker.

September 2006, "Paradoxes of Traffic Engineering with Partially Optimal Routing," Industrial and Enterprise Systems Engineering, UIUC, invited seminar.

September 2006, Allerton Conference on Communication, Control, and Computing, invited papers.

October 2006, "Competition and Efficiency in Congested Markets," Radcliffe Exploratory Seminar on Dynamic Networks: Behavior, Optimization and Design, Radcliffe Institute, Harvard University, invited speaker.

December 2006, "A Geometric Framework for Nonconvex Optimization Duality and Penalty Methods," 5th Ballarat Workshop on Global and Non-Smooth Optimization: Theory, Methods and Applications, Australia, invited speaker.

January 2007, "Price and Capacity Competition," The Economics of the Software and Internet Industries, Toulouse, invited talk.

February 2007, "Competition and Efficiency in Congested Markets," Isenberg School of Management, University of Massachusetts, Amherst, invited seminar.

February 2007, "A Geometric Framework for Nonconvex Optimization Duality and Penalty Methods," Second International Conference on Complementarity, Duality, and Global Optimization, invited talk.

March 2007, "Approximate Primal Solutions and Rate Analysis for Dual Subgradient Methods," Second Cowles Foundation Workshop in Optimization, Yale University, invited speaker.

March 2007, "Approximate Primal Solutions and Rate Analysis for Dual Subgradient Methods," Harvard University, invited seminar.

June 2007, "Primal Solutions and Rate Analysis for Subgradient Methods," University of Torino, invited seminar.

July 2007, "Consensus Problems for Multi-agent Systems," Europt XXII, Prague, invited talk.

July 2007, "Primal-Dual Subgradient Methods and Rate Analysis," 22<sup>nd</sup> European Conference on Operational Research: Nonsmooth Optimization, Theory, Algorithms, and Applications, Prague, invited talk.

August 2007, "Index Theory for Global Uniqueness of Critical Points," 2<sup>nd</sup> International Conference on Continuous Optimization, invited talk.

September 2007, "Primal Solutions and Rate Analysis for Subgradient Methods," Electrical and Systems Engineering Department, University of Pennsylvania, invited seminar.

September 2007, Allerton Conference on Communication, Control, and Computing, invited papers.

November 2007, INFORMS Annual Conference, invited talks.

November 2007, ASILOMAR Conference in Signals, Systems, and Computers, invited papers.

December 2007, IEEE Conference on Decision and Control (CDC), invited papers.

December 2007, "Networks' Challenge: Where Game Theory Meets Network Optimization," IEEE Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP), plenary speaker.

December 2007, "Distributed Subgradient Methods for Multi-Agent Optimization," Workshop on Optimization and Signal Processing, Hong Kong, invited speaker.

December 2007, "Distributed Subgradient Methods for Multi-Agent Optimization," and "Dual Computational Methods," National Science and Research Council, Turkey, invited talks.

January 2008, "Networks' Challenge: Where Game Theory Meets Network Optimization," Electrical and Systems Engineering Department, University of Pennsylvania, invited seminar.

January 2008, "Dynamic Rate Allocation in Fading Multiple Access Channels," Information Theory and Applications (ITA) Workshop, invited paper.

March 2008, "Subgradient Methods for Saddle Point Problems," INFORMS Optimization Society 2008 Conference, invited talk.

March 2008, "Subgradient Methods in Network Resource Allocation: Rate Analysis," Conference on Information Sciences and Systems (CISS), invited paper.

April 2008, Second International Conference on Nonlinear Programming with Applications, Beijing, China, invited talk.

April 2008, "Approximate Primal Solutions and Rate Analysis in Subgradient Methods," University of Washington, invited seminar.

April 2008, "Consensus and Distributed Optimization in Multi-Agent Systems," Columbia University, invited seminar.

May 2008, "Bayesian Learning in Social Networks," SIAM conference on optimization, invited talk.

May 2008, "Bayesian Learning in Social Networks," Caltech Workshop on Dynamics in Microeconomics and Game Theory, invited speaker.

July 2008, "Networks' Challenge: Where Game Theory Meets Network Optimization," International Symposium on Information Theory, invited tutorial on Game Theory.

July 2008, "Rule-of-Thumb Learning in Networks," Mathematical Theory of Networks and Systems (MTNS), invited talk.

September 2008, Allerton Conference on Communication, Control, and Computing, invited papers.

October 2008, INFORMS Annual Conference, invited talks.

November 2008, "Consensus and Distributed Optimization in Multi-Agent Systems," Stanford University, invited seminar.

December 2008, "Learning and Dynamics in Networks," IEEE Conference on Decision and Control (CDC), invited tutorial on Game Theory and Networks.

January 2009, "Spread of (Mis)Information in Social Networks," Workshop on Adaptive Systems and Mechanism Design, UC Irvine, invited speaker.

January 2009, "Learning in Social Networks," KTH, ACCESS Distinguished Lecture Series, invited seminar.

March 2009, "Distributed Optimization in Multi-Agent Networks," Cornell University, invited seminar.

March 2009, "Spread of (Mis)Information in Social Networks," Optimization Applications in Economics, Engineering and Applied Sciences (OPTIMA), UIUC, invited speaker.

May 2009, "Spread of (Mis)Information in Social Networks," GameNets, Istanbul, Turkey, invited talk.

June 2009, "Learning and Dynamics in Networks," American Control Conference (ACC), plenary speaker.

August 2009, International Symposium on Mathematical Programming (ISMP), invited talks.

September 2009, "Distributed Optimization in Multi-Agent Networks," 1st IFAC Workshop on Estimation and Control of Networked Systems (NecSys'09), invited speaker.

September 2009, Allerton Conference on Communication, Control, and Computing, invited paper.

October 2009, INFORMS Annual Conference, invited talks.

October 2009, "Learning and Dynamics in Networks," LIDS, MIT, invited seminar.

November 2009, "Spread of (Mis)Information in Social Networks," University of Montreal, Economics Department, invited seminar.

November 2009, Symposium on Human-Centric Complex Systems, Dartmouth, invited panel speaker.

November 2009, Caltech workshop, invited speaker.

November 2009, "Networks and Strategic Interactions," MIT Industrial Liaison Program (ILP) invited speaker.

November 2009, "Networks and Strategic Interactions," LIDS Paths Ahead Symposium, invited panel speaker.

November 2009, "Learning and Dynamics in Networks," Economic Theory Workshop, Columbia University, invited seminar.

January 2010, "Flow Representations of Games: Near-Potential Games and Dynamics," CSL Student conference, UIUC, keynote speaker.

February 2010, Workshop on the Frontiers of Controls, Games and Network Science, UT Austin, invited speaker.

March 2010, "Flow Representations of Games: Near-Potential Games and Dynamics," Workshop on Distributed Decisions via Games and Price Mechanisms, Lund University, invited speaker.

May 2010, "Cascades and Aggregate Volatility in Networks," International School and Conference on Network Science, MIT, invited speaker.

August 2010, "Flow Representations of Games: Near-Potential Games and Dynamics," Santa Fe workshop, invited speaker.

September 2010, Allerton Conference on Communication, Control, and Computing, invited papers.

November 2010, "Dynamics and Optimization in Social Networks," Bilkent University, invited seminar.

November 2010, "Opinion Dynamics and Control in Social Networks," Workshop on Reasoning in Adversarial and Noncooperative Environments, invited speaker.

November 2010, "Distributed Optimization in Multi-Agent Networks," Institute for Pure and Applied Mathematics (IPAM) Workshop on Applications of Optimization in Science and Engineering, invited speaker.

December 2010, IEEE Conference on Decision and Control (CDC), invited papers.

January 2011, "Flow Representations of Games: Near-Potential Games and Dynamics," Institute for Pure and Applied Mathematics (IPAM) Workshop on Algorithmic Game Theory, invited speaker.

February 2011, "Opinion Fluctuations and Disagreement in Social Networks," Information Theory and Applications (ITA) Workshop, invited paper.

February 2011, "Cascades and Aggregate Volatility in Networks," Center for Complex Network Research, Northeastern University, invited seminar.

March 2011, "Cascades and Aggregate Volatility in Networks," Microeconomic Theory Workshop, Yale, Economics Department, invited seminar.

April 2011, "Opinion Dynamics and Control in Social Networks," Boston Chapter of the IEEE Society on Social Implications of Technology, invited speaker.

April 2011, "Networks' Challenge: Where Game Theory Meets Network Optimization," National Academy of Sciences, Frontiers of Science Workshop, invited speaker.

May 2011, "Learning and Dynamics in Social Networks," Optimization Days, Montreal, Canada, plenary speaker.

May 2011, "A Distributed Newton Method for Network Utility Maximization," SIAM Conference on Optimization, Darmstadt, Germany, invited speaker.

May 2011, "Dynamics in Near-Potential Games," Workshop on Innovations in Algorithmic Game Theory, Hebrew University, invited speaker.

June 2011, "Cascades and Aggregate Volatility in Networks," Fifteenth Yale Workshop on Adaptive and Learning Systems, invited speaker.

May 2011, "A Distributed Newton Method for Network Utility Maximization," Middle East Technical University (METU), Informatics Institute Workshop, Turkey, invited speaker.

June 2011, INFORMS Revenue Management Conference, Columbia University, plenary speaker.

June 2011, "Cascades and Aggregate Volatility in Networks," Society for the Advancement of Economic Theory (SAET) Conference, Faro, Portugal, invited speaker.

July 2011, Foundations of Computational Mathematics Conference, Workshop on Flocking, Swarming, and Control of Distributed Systems, Budapest, Hungary, invited speaker.

August 2011, INFORMS Midwest Conference, invited talks.

September 2011, Allerton Conference on Communication, Control, and Computing, invited paper.

October 2011, Winedale Workshop, hosted jointly by UT Austin, Rice University and Texas A&M University, invited tutorial on Games and Optimization.

November 2011, INFORMS Annual Conference, invited talks.