CURRICULUM VITAE
ASU OZDAGLAR

MathWorks Professor of Electrical Engineering and Computer Science
Department Head
Electrical Engineering and Computer Science Department
Massachusetts Institute of Technology
77 Massachusetts Avenue, 38-403
Cambridge, MA 02139

Tel: 1-617-253-4607
Fax: 1-617-253-3578
Web: https://asu.mit.edu
E-mail: asuman@mit.edu

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.
2008-2012	Associate Professor of EECS (with tenure), M.I.T.
2012-present	Professor of EECS, M.I.T.
2014-2016	Director, Laboratory for Information and Decision Systems
2017	Associate Head, Electrical Engineering and Computer Science Department, MIT
2018-present	Head, Electrical Engineering and Computer Science Department, MIT
2019-present	Deputy Dean of Academics, Schwarzman College of Computing

FIELDS OF INTEREST

Nonlinear and Convex Optimization: Theory and Algorithms,
Distributed Optimization Methods,
Optimization for Machine Learning,
Game Theory,
Social, Economic, and Financial Networks: Learning, Information Dynamics, Influence, Systemic Risk, Network Inference problems (community detection, centrality estimation)
Network Economics: Pricing, Investment, and Resource Allocation Games,
Network Resource Allocation: Wireline, Wireless, and Optical Networks.

AWARDS AND GRANTS

AWARDS

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, Inaugural lecture.	2005
NSF CAREER Award	2005
Class of 1943 Career Development Chair	2006
AACC Donald P. Eckman Award	2008
(The citation reads: "*For contributions to optimization theory, game theory and its applications to congested markets, and learning in large networks with applications to human and social networks*")	
Kavli Fellow of the National Academy of Sciences	2011
Inaugural Steven and Renee Innovation Fellowship	2012
Spira Teaching Award	2014
Keithley Professorship in Electrical Engineering	2015
METU Recognition Award	2018
Distinguished Professor of Engineering	2018
MathWorks Professor of Engineering and Computer Science	2020

GRANTS

Current Research Grants:

1. DARPA, "Harnessing Parametrization for Fast and Reliable Nonconvex Optimization," joint with Profs. Parrilo (MIT), Recht, Hardt (Berkeley).
2. ARO, "Towards a Theory of Large-Scale Human Interactions," single PI.
3. ARO MURI, "Evolution of Cultural Norms and Dynamics of Socio-political Change," joint with Profs. Jadbabaie, Kearns (Upenn), Acemoglu, Christia, Dahleh (MIT), Blume, Kleinberg (Cornell), Jackson, Leskovec (Stanford), Shamma (Gatech).
4. MIT-IBM Watson AI Lab grant, "Adaptive, Robust, and Collaborative Optimization," joint with Prof Jadbabaie, Dr. Subhro Das.

5. MIT-Air Force AI Innovation Accelerator grant, "RAIDEN, Robust AI Development Environment," joint with Profs Madry, Parrilo, and Lincoln Lab.

Past Research Grants:

1. ONR MURI, "New Paradigms for Scalable Online Decentralized Optimization," joint with Profs. Jadbabaie, Rakhlin, Ribeiro (UPenn).
2. DARPA, "Foundations of Scalable Statistical Learning," joint with Profs. Jadbabaie, Shah, Rigollet, Bresler, Sra, Uhler (MIT).
3. NSF "FORCES: Foundations Of Resilient CybEr-physical Systems," joint with Profs. Sastry, Bayen, Schwartz, Song, Tomlin (Berkeley), Amin, Balakrishnan (MIT), Hiskens,Teneketzis (Michigan), Gabor, Karsai, Koutsoukos, Sztipanovits (Vanderbilt)
4. NSF, "Novel Game-Theoretic Tools and Solution Concepts with Applications to Network Dynamics and Control," joint with Prof. Parrilo (MIT).
5. AFOSR, "Dynamics of Beliefs, Culture, and Social Interactions," joint with Profs. Acemoglu, Dahleh (MIT), Shamma (Gatech).
6. 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).
7. ARO, "Game-Theoretic Models of Social Conflict," joint with Prof. Acemoglu (MIT).
8. Draper, "Analysis and Control of Opinion Dynamics in Social Networks," joint with Prof. Tsitsiklis (MIT).
9. MIT Intelligence Initiative, "When are Groups More Intelligent than Individuals?" joint with Prof. Pentland (MIT).
10. NSF Career Grant, "Distributed Multiagent Control and Optimization: Where Game Theory Meets Network Optimization".
11. Draper, "Opinion Formation and Influence in Conflict Situations: The Role of Networks," joint with Profs. Barnhart and Christia (MIT).
12. NSF, "An Analytic Framework for Political and Social Change: Conflict, Beliefs, and Dynamics," joint with Profs. Acemoglu, Dahleh, Shah (MIT).
13. DARPA, ITMANET, "Fundamental Limits of Wireless Networks," joint with Profs. Goldsmith, Boyd, Johari (Stanford), Effros (Caltech), Coleman, Meyn, Moulin (UIUC), Medard, Shah, Zheng (MIT).
14. NSF, "Optimization and Control of Stochastic Wireless Networks," joint with Prof. Parrilo (MIT).
15. DARPA, CBMANET, "Control of Mobile Ad-hoc Networks," joint with Prof. Medard (MIT).
16. AFOSR, "Control Theoretic Modeling for Uncertain Cultural Attitudes and Unknown Adversarial Intent," joint with Profs. Shamma (Gatech), Dahleh (MIT).
17. 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
2nd International Conference on Complementarity, Duality, and Global Optimization in Science and Engineering (CDGO)	2006	2007
ACM Conference on Electronic Commerce (EC)	2006	2007
2nd International Workshop on Game Theory in Communication Networks	2008	2008
International Conference on Game Theory in Networks	2009	2009
Information Theory Workshop (ITW)	2009	2009
2nd 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
7th Spain, Italy, and Netherlands meeting on Game Theory (SING 7)	2011	2011
8th Spain, Italy, and Netherlands meeting on Game Theory (SING 8)	2012	2012
3rd Workshop on Distributed Estimation and Control in Networked Systems (NecSys'12)	2012	2012
New England Machine Learning Day	2019	2019
Conference Organizer:		
Co-organizer, Conference on Frontiers in Game Theory and Networked-Systems, MIT	2008	2008
Co-chair, 1st IFAC Workshop on Estimation and Control of Networked Systems (NecSys'09)	2009	2009
Organizing Committee Member, Workshop on the Frontiers of Controls, Games and Network Science, UT Austin	2010	2010
Scientific Committee Member, Lund Center for Control of Complex Engineering Systems, Thematic Program of Spring 2010: Distributed Decision-Making and Control.	2010	2010
Co-chair, Workshop on the Economics of Networks, Systems, and Computation (NetEcon 11)	2011	2011
Co- organizer, Workshop on Information and Decisions	2011	2011

in Social Networks, LIDS		
Co-organizer, Workshop on Information and Decisions in Social Networks, LIDS	2012	2012
Technical co-chair, Rising Stars in EECS	2013	2013
Co-organizer, Institute for Mathematics and its Applications (IMA) Workshop on Analysis and Control of Network Dynamics	2015	2015
Co-organizer, Institute for Pure and applied Mathematics (IPAM) Summer School on Games and Contracts for Cyber-Physical Systems	2015	2015
Organizer, LIDS Smart Urban Infrastructures Workshop	2017	2017
Chair, Rising Stars in EECS	2018	2018
Co-chair, College of Computing Launch Academic Symposium	2019	2019
Organizer, Games, Learning, and Networks Workshop at Institute for Mathematical Sciences, Singapore	2019	2021

Session/Cluster Organizer:

Session Organizer, INFORMS	2005, 2007-2019
Session Organizer, IEEE Conference on Decision and Control (CDC)	2005-2008, 2010-2011, 2017-2018
Session Organizer, 2nd International Conference on Complementarity, Duality, and Global Optimization in Science and Engineering	2007 2007
Session Organizer, 22nd European Conference on Operational Research: Nonsmooth Optimization, Theory, Algorithms, and Applications	2007 2007
Session Organizer, Joint EUROPT-OMS meeting	2007 2007
Session Organizer, 2nd International Conference on Continuous Optimization	2007 2007
Session Organizer, SIAM Conference on Optimization	2008 2008
Session Organizer, INFORMS Optimization Society Conference	2008 2008
Session Organizer, IEEE Information Theory Workshop (ITW)	2009 2009
Game Theory Cluster Chair, INFORMS	2009 2009
Game Theory Cluster Co-chair, International Symposium on Mathematical Programming (ISMP)	2009 2009
Session Organizer, International Conference on Game Theory for Networks (GameNets)	2009 2009
Game Theory Cluster Co-chair, International Symposium on Mathematical Programming (ISMP)	2012 2012

Other:

Panel Member, NSF	2005, 2006, 2007, 2008, 2009

Committee Member, George Nicholson Student Prize Competition	2007, 2009	
Associate Editor, Optimization Theory, Algorithms and Applications for the Asia-Pacific Journal of Operational Research (APJOR)	2008	2011
Chair of the Working Group "Game-Theoretic Methods in Networks" under the Technical Committee "Networks and Communications Systems" of the IEEE Control Systems Society	2009	2011
Chair of the Technical Committee "Networks and Communications Systems" of the IEEE Control Systems Society	2011	2014
Advisory Board Member of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering (ICST) Transactions on Network Optimization and Control	2009	2010
Participant, ARO Network Science Division Planning Strategy Workshop	2010	2010
Participant, ARO Workshop on Reasoning in Adversarial and Noncooperative Environments	2010	2010
Member, Control System Society Board of Governors	2010	2010
Associate Editor, IEEE Transactions on Automatic Control (TAC)	2011	2012
Area Editor, Operations Research	2012	2017
Editorial Committee Member, Annual Review Control, Robotics, and Autonomous Systems	2017	2018
Member, Department Review Board of ESE Department, UPenn.	2018	2018
Member, von Neumann Theory Prize Committee	2019	2021
Member, International Scientific Advisory Board, Wallenberg AI, Autonomous Systems and Software Program (WASP) 2019.	2019	present

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, Review of Economic Studies.

PUBLICATIONS

1. Books and Book Chapters
    1. Bertsekas, D.P., A. Nedic, and A. Ozdaglar, *Convex Analysis and Optimization*, Athena Scientific, 2003.
    2. Menache, I. and A. Ozdaglar, "Network Games: Theory, Models, and Dynamics," Synthesis Lecture, Jean Walrand, editor, Morgan and Claypool Publishers, 177 pages, 2011.

3. Book Chapter: 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.
4. Book Chapter: Nedic, A. and A. Ozdaglar, "Cooperative Distributed Multi-agent Optimization," *Convex Optimization in Signal Processing and Communication*s, Yonina Eldar and Daniel Palomar, editors, Cambridge University Press, pp. 340-386, 2008.
5. Book Chapter: 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.
6. Book Chapter: A. Ozdaglar, "Strategic Form Games and Nash Equilibrium," Game Theory Section of the Encyclopedia of Systems and Control, John Baillieul and Tariq Samad, editors, Springer, 2013.
7. Book Chapter: Acemoglu, D., A. Ozdaglar, and A. Tahbaz-Salehi, "Networks, Shock Propagation, and Systemic Risk," *Oxford Handbook on the Economics of Networks*, Yann Bramoulle, Andrea Galeotti, Brian Rogers, editors, 2015.

2. 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. 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.

19. 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.

20. 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.

21. 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.

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. 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.

24. Nedic, A. and A. Ozdaglar, "Approximate Primal Solutions and Rate Analysis for Dual Subgradient Methods," *LIDS report* 2753, *SIAM Journal on Optimization*, vol. 19, no. 4, pp. 1757-1780, 2009.

25. 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.

26. Nedic, A., A. Ozdaglar, and P.A. Parrilo, "Constrained Consensus and Optimization for Multi-agent Networks," *LIDS report* 2779, *IEEE Transactions on Automatic Control*, vol. 55, no. 4, pp. 922-938, 2010.

27. 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.

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. Acemoglu D. and A. Ozdaglar, "Opinion Dynamics and Learning in Social Networks," LIDS report 2851, inaugural issue of *Dynamic Games and Applications, vol. 1, no. 1, pp. 3-49,* DOI: 10.1007/s13235-010-0004-1, 2010.

32. Candogan, O., I. Menache, A. Ozdaglar, and P.A. Parrilo, "Flows and Decompositions of Games: Harmonic and Potential Games," *Mathematics of Operations Research*, vol. 36, no. 3, pp. 474-503, DOI: 10.1287/moor.1110.0500, 2011.

33. Lobel, I. and A. Ozdaglar, "Distributed Subgradient Methods over Random Networks," *IEEE Transactions on Automatic Control*, vol. 56, no. 6, pp. 1291-1306, 2011.

34. Acemoglu, D., K. Bimpikis, and A. Ozdaglar, "Experimentation, Patents, and Innovation," *American Economic Journal: Microeconomics,* vol. 3, no. 1, pp. 37-77, 2011.

35. Stein, N., P.A. Parrilo, and A. Ozdaglar, "Correlated Equilibria in Continuous Games: Characterization and Computation," LIDS report 2805, *Games and Economic Behavior*, vol. 71, no. 2, pp. 436-455, 2011.

36. Acemoglu, D., M. Dahleh, I. Lobel, and A. Ozdaglar, "Bayesian Learning in Social Networks," *LIDS report* 2780, *Review of Economic Studies*, vol. 78, no. 4, pp. 1201-1236, DOI: 10.1093/restud/rdr004, 2011.

37. Lu, Y., A. Ozdaglar, and D. Simchi-Levi, "Stock Repurchase with an Adaptive Reservation Price: A Study of the Greedy Policy," *Operations Research Letters*, DOI:10.1016/j.orl.2010.11.006, 13 pages, 2010.

38. 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*, vol. 40, no. 4, pp. 749-767, DOI: 10.1007/s00182-010-0267-1, 2011.

39. 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," *IEEE Communications Magazine*, vol. 49, no. 5, pp. 195-205, 2011.

40. ParandehGheibi, A, M. Medard, A. Ozdaglar, and S. Shakkottai, "Avoiding Interruptions - a QoE Reliability Function for Streaming Media Applications," *IEEE Journal on Selected Areas in Communications, special issue on Trading Rate for Delay at the Transport and Application Layers*, vol. 29, no. 5, pp. 1064-1074, 2011.

41. 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.

42. Marbach, P., A. Eryilmaz, and A. Ozdaglar, "Asynchronous CSMA Policies in Multihop Wireless Networks with Primary Interference Constraints," *IEEE Transactions on Information Theory*, vol. 57, no. 6, pp. 3644-3676, 2011.

43. Lobel, I., A. Ozdaglar, and D. Feijer, "Distributed Multi-agent Optimization with State-Dependent Communication," LIDS report 2834, *Mathematical Programming, special issue in honor of Paul Tseng*, vol. 129, no. 2, pp. 255-284, 2011.

44. Candogan, O., K. Bimpikis, and A. Ozdaglar, "Optimal Pricing in Social Networks," to appear in SIGecom Exchanges, 3 pages, 2012.

45. Acemoglu, D, V. Carvalho, A. Ozdaglar, and A. Tahbaz-Salehi, "The Network Origins of Aggregate Fluctuations," *Econometrica*, vol. 80, no. 5, pp. 1977-2016, 2012.

46. Candogan, O., K. Bimpikis, and A. Ozdaglar, "Optimal Pricing in Networks with Externalities," *Operations Research*, vol. 60, no. 4, pp. 883-905, 2012.

47. Candogan, O, A. Ozdaglar, and P.A. Parrilo, "Near-Potential Games: Geometry and Dynamics," *ACM Transactions on Economics and Computation,* LIDS report 2873, vol. 1, no. 2, 11 pages, 2013.

48. Yildiz, M.E., D. Acemoglu, A. Ozdaglar, A. Saberi, and A. Scaglione, "Discrete Opinion Dynamics with Stubborn Agents," LIDS report 2858, *ACM Transactions on Economics and Computation,* vol. 1, no. 4, 48 pages, 2013.

49. Acemoglu, D., G. Como, F. Fagnani, and A. Ozdaglar, "Opinion Fluctuations and Disagreement in Social Networks," LIDS report 2850, *Mathematics of Operations Research,* vol. 38, no. 1, pp. 1-27, 2013.

50. Drakopoulos, K., A. Ozdaglar, and J. Tsitsiklis, "On Learning with Finite Memory," *IEEE Transactions on Information Theory*, vol. 59, no. 10, pp. 6859-6872, 2013.

51. Candogan, O, A. Ozdaglar, and P.A. Parrilo, "Dynamics in Near-Potential Games," LIDS report 2872, *Games and Economic Behavior*, vol. 82, pp. 66-90, 2013.

52. Zhao, F., M. Medard, D.S. Lun, and A. Ozdaglar, "Convergence study of decentralized min-cost subgraph algorithms for multicast in coded networks," *IEEE Transactions on Information Theory*, vol. 60, no. 1, pp. 410-421, 2013.

53. Wei, E., A. Ozdaglar, and A. Jadbabaie, "A Distributed Newton Method for Network Utility Maximization, Part I: Algorithm," LIDS report 2832, *IEEE Transactions on Automatic Control*, vol. 58, no. 9, pp. 2162-2175, 2013.

54. Wei, E., A. Ozdaglar, and A. Jadbabaie, "A Distributed Newton Method for Network Utility Maximization, Part II: Convergence," LIDS report 2870, *IEEE Transactions on Automatic Control*, vol. 58, no. 9, pp. 2176-2188, 2013.

55. Zargham, M., A. Ribeiro, A. Ozdaglar, and A. Jadbabaie, "Accelerated Dual Descent for Network Optimization," *IEEE Transactions on Automatic Control*, vol. 59, no. 4, pp.905-920, 2013.

56. Njoroge, P., A. Ozdaglar, N. Stier-Moses, and G. Weintraub, "Investment in Two Sided Markets and the Net Neutrality Debate," *Review of Network Economics*, 63 pages, vol. 12, no. 4, pp. 355-402, 2013.

57. Acemoglu, D., K. Bimpikis, and A. Ozdaglar, "Dynamics of Information Exchange in Endogenous Social Networks," *Theoretical Economics,* vol. 9, no. 1, pp. 41-97, 2014.

58. Beck, A., A. Nedich, A. Ozdaglar, and M. Teboulle, "Optimal Distributed Gradient Methods for Network Resource Allocation Problems," *IEEE Transactions on Control of Network Systems*, inaugural issue, vol. 1, no. 1, pp. 64-73, 2014.

59. Vassio, L., F. Fagnani, P. Frasca, and A. Ozdaglar, "Message Passing Optimization of Harmonic Influence Centrality," *IEEE Transactions on Control of Network Systems*, inaugural issue, vol. 1, no. 1, pp. 109-120, 2014.

60. Candogan, O. A. Ozdaglar, P.A. Parrilo, "Iterative Auction Design for Tree Valuations," *Operations Research*, http://dx.doi.org/10.1287/opre.2015.1388 2015.

61. Acemoglu, D., A. Ozdaglar, and A. Tahbaz-Salehi, "Systemic Risk and Stability in Financial Networks," *American Economic Review*, vol. 105, no. 2, pp. 564-608, 2015.

62. Drakopoulos, K., A. Ozdaglar, and J. Tsitsiklis, "An Efficient Curing Policy for Epidemics on Graphs," *IEEE Transactions on Network Science and Engineering*, vol. 1, no. 2, pp. 67-75, 2015.

63. Gurbuzbalaban, M., A. Ozdaglar, and P.A. Parrilo, "A Globally Convergent Incremental Newton Method," *Mathematical Programming*, vol. 151, no. 1, pp. 283-313, 2015.

64. Bimpikis K., A. Ozdaglar, and E. Yildiz, "Competitive Targeted Advertising over Networks," *Operations Research*, vol. 64, no. 3, pp. 705-720, 2016. **

65. Drakopoulos, K., A. Ozdaglar, and J. Tsitsiklis, "When is a Network Epidemic Hard to Eliminate?" *Mathematics of Operations Research*, vol. 42, no. 1, pp. 1-14, 2016. **

66. Acemoglu, D., A. Malekian, and A. Ozdaglar, "Network Security and Contagion," *Journal of Economic Theory*, vol. 166, pp. 536-585, 2016.

67. Acemoglu, D., A. Ozdaglar, and A. Tahbaz-Salehi, "Microeconomic Origins of Macroeconomic Tail Risks," *American Economic Review*, vol. 107, no. 1, pp. 54-108, 2017.

68. Gurbuzbalaban, M., A. Ozdaglar, and P.A. Parrilo, "Convergence Rate of Incremental Aggregated Gradient Algorithms," *SIAM Journal on Optimization*, vol. 27, no. 2, pp. 1035-1048, 2017.

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1. Other Major Publications *

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    9. Yildiz, M.E., D. Acemoglu, and A. Ozdaglar, "Diffusion of Innovations in a Stochastic Linear Threshold Model," Working paper, 2011.
    10. Stein, N., P.A. Parrilo, and A. Ozdaglar, "Exchangeable Equilibria Contradict Exactness of the Papadimitriou-Roughgarden Algorithm," Working paper, 2011.

11. Stein, N., P.A. Parrilo, and A. Ozdaglar, "A Partial Proof of Nash's Theorem via Exchangeable Equilibria," Working paper, 2011.
12. Acemoglu, D., M. Mostagir, and A. Ozdaglar, "Peers and Pundits: State-Dependent Opinion Dynamics," Working paper, 2012.
13. Stein, N., A. Ozdaglar, and P.A. Parrilo, "Exchangeable Equilibria, Part I: Symmetric Bimatrix Games." submitted for publication, 2013.
14. Stein, N., A. Ozdaglar, and P.A. Parrilo, "Exchangeable Equilibria, Part II: General Symmetric Games." Working paper, 2011.

Patents Issued or To Be Issued

1. A. Ozdaglar and D. P. Bertsekas, "Routing and Wavelength Assignment in Optical Networks," US Serial No. 60/295,941, June 2001.
2. A. Eryilmaz, M. Medard, and A. Ozdaglar, "A Method for Coding-based, Delay Efficient Data Transmission", April 2006.
3. E. Wei, A. Ozdaglar, A. Jadbabaie, "A Distributed Newton Method for Network Utility Maximization," MIT Case 15245J, 2011.

INVITED LECTURES

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

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

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

October 2004, "Price of Anarchy in Price Competition Games," **invited talk**, INFORMS Annual Meeting, Denver, CO.

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

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

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

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

August 2005, "Competition and Efficiency in Congested Markets," **invited seminar**, Coordinated Science Laboratory, University of Illinois, Urbana-Champaign, IL.

September 2005, "Price of Anarchy with Competing Providers for a General Demand Model," **invited paper**, Allerton Conference on Communication, Control, and Computing, University of Illinois, Urbana-Champaign, IL.

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

November 2005, "Applications of Generalized Poincare Hopf in Network Optimization," **invited talk**, INFORMS Annual Meeting, San Francisco, CA.

March 2006, "Paradoxes of Traffic Engineering with Partially Optimal Routing," **invited talk**, Conference on Information Sciences and Systems (CISS), Princeton University, Princeton, NJ.

September 2006, "Paradoxes of Traffic Engineering with Partially Optimal Routing," **invited seminar**, Industrial and Enterprise Systems Engineering, University of Illinois, Urbana-Champaign, IL.

September 2006, "Price and Capacity Competition – Partial Results," and "Economic Aspects of Network Coding," **invited papers**, Allerton Conference on Communication, Control, and Computing, University of Illinois, Urbana-Champaign, IL.

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

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

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

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

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

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

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

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

July 2007, "Consensus Problems for Multi-agent Systems," **invited talk**, 2nd Conference on Optimization Methods and Software and 6th EUROPT Workshop on Advances in Continuous Optimization (Joint Europt-OMS Meeting), Prague, Czech Republic.

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

August 2007, "Index Theory for Global Uniqueness of Critical Points," **invited talk**, 2nd International Conference on Continuous Optimization, McMaster University, Hamilton, Ontario, Canada.

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

September 2007, **invited papers**, Allerton Conference on Communication, Control, and Computing, University of Illinois, Urbana-Champaign, IL.

November 2007, **invited talks**, INFORMS Annual Meeting, Seattle, WA.

November 2007, **invited papers**, ASILOMAR Conference in Signals, Systems, and Computers, Pacific Grove, CA.

December 2007, **invited papers**, IEEE Conference on Decision and Control (CDC), New Orleans, LA.

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

December 2007, "Distributed Subgradient Methods for Multi-Agent Optimization," **invited talk**, Workshop on Optimization and Signal Processing, The Chinese University of Hong Kong, Hong Kong.

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

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

January 2008, "Dynamic Rate Allocation in Fading Multiple Access Channels," **invited paper**, Information Theory and Applications (ITA) Workshop, University of California, San Diego, CA.

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

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

April 2008, "Approximate Primal Solutions and Rate Analysis in Subgradient Methods," **invited talk**, Second International Conference on Nonlinear Programming with Applications, Beijing, China.

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

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

May 2008, "Bayesian Learning in Social Networks," **invited talk**, SIAM Conference on Optimization, Boston, MA.

May 2008, "Bayesian Learning in Social Networks," **invited talk**, Workshop on Dynamics in Microeconomics and Game Theory, California Institute of Technology, Pasadena, CA.

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

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

September 2008, **invited papers**, Allerton Conference on Communication, Control, and Computing, University of Illinois, Urbana-Champaign, IL.

October 2008, **invited talks**, INFORMS Annual Meeting, Washington, DC.

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

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

January 2009, "Spread of (Mis)Information in Social Networks," **invited talk**, Workshop on Adaptive Systems and Mechanism Design, Institute for Mathematical Behavioral Sciences, University of California, Irvine, CA.

January 2009, "Learning in Social Networks," **invited seminar**, ACCESS Distinguished Lecture Series, KTH Royal Institute of Technology, Stockholm, Sweden.

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

March 2009, "Spread of (Mis)Information in Social Networks," **invited talk**, Optimization Applications in Economics, Engineering and Applied Sciences (OPTIMA), University of Illinois, Urbana-Champaign, IL.

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

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

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

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

September 2009, **invited paper,** Allerton Conference on Communication, Control, and Computing, University of Illinois, Urbana-Champaign, IL.

October 2009, **invited talks**, INFORMS Annual Meeting, San Diego, CA.

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

November 2009, **invited panel speaker**, Symposium on Human-Centric Complex Systems, Dartmouth College, Hanover, NH.

November 2009, **invited talk**, Caltech workshop, Pasadena, CA.

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

January 2010, "Flow Representations of Games: Near-Potential Games and Dynamics," **plenary speaker,** Coordinated Science Laboratory, Student Conference, University of Illinois, Urbana-Champaign, IL.

February 2010, **invited talk**, Workshop on the Frontiers of Controls, Games and Network Science, University of Texas, Austin, TX.

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

May 2010, "Cascades and Aggregate Volatility in Networks," **invited talk**, International School and Conference on Network Science, Cambridge, MA.

August 2010, "Flow Representations of Games: Near-Potential Games and Dynamics," **invited talk**, Workshop on Decentralized Control in Systems of Strategic Actors, Santa Fe Institute, Santa Fe, NM.

September 2010, **invited papers,** Allerton Conference on Communication, Control, and Computing, University of Illinois, Urbana-Champaign, IL.

September 2010, "Dynamics and Optimization in Social Networks," **invited talk**, Draper Laboratory, Cambridge, MA.

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

November 2010, "Opinion Dynamics and Control in Social Networks," **invited talk**, Workshop on Reasoning in Adversarial and Noncooperative Environments, Duke University, Durham, NC.

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

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

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

February 2011, "Opinion Fluctuations and Disagreement in Social Networks," **invited talk**, Information Theory and Applications (ITA) Workshop, University of California, San Diego, CA.

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

March 2011, "Cascades and Aggregate Volatility in Networks," **invited seminar**, Microeconomic Theory Workshop, Economics Department, Yale University, New Haven, CT.

April 2011, "Opinion Dynamics and Control in Social Networks," **invited talk**, Boston Chapter of the IEEE Society on Social Implications of Technology, Lincoln Laboratory, Lexington, MA.

April 2011, "Networks' Challenge: Where Game Theory Meets Network Optimization,"

invited talk, National Academy of Sciences, Frontiers of Science Workshop, Irvine, CA.

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

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

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

June 2011, "Cascades and Aggregate Volatility in Networks," **invited talk**, Fifteenth Yale Workshop on Adaptive and Learning Systems, Yale University, New Haven, CT.

May 2011, "Distributed Optimization of Multi-Agent Networked Systems," **invited talk**, Middle East Technical University (METU), Informatics Institute Workshop, Ankara, Turkey.

June 2011, "Dynamics and Optimization in Social Networks," **plenary speaker**, INFORMS Revenue Management Conference, Columbia University, New York, NY.

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

July 2011, "A Distributed Newton Method for Network Utility Maximization," **invited talk**, Foundations of Computational Mathematics Conference, Workshop on Flocking, Swarming, and Control of Distributed Systems, Budapest, Hungary.

August 2011, **invited talks**, INFORMS Midwest Conference, Ohio State University, Columbus, OH.

September 2011, **invited paper**, Allerton Conference on Communication, Control, and Computing, University of Illinois, Urbana-Champaign, IL.

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

October 2011, **plenary speaker**, International Conference on Network Games, Control and Optimization (NetGCoop 2011), Paris, France.

November 2011, **invited talks**, INFORMS Annual Meeting, Charlotte, NC.

November 2011, **invited seminar**, Cymer Center for Control Systems and Dynamics, University of California, San Diego, CA.

April 2012, **invited talk**, GraphEx Symposium, MIT Endicott House, Dedham, MA.

April 2012, **invited talk**, Network Science Workshop at Westpoint, NY.

July 2012, **plenary speaker**, International Conference on Game Theory, Stony Brook University, New York, NY.

September 2012, **keynote speaker**, 3rd IFAC Workshop on Distributed Estimation and Control of Networked Systems (NecSys 12), University of California, Santa Barbara, CA.

September 2012, **invited paper**, Allerton Conference on Communication, Control, and Computing, University of Illinois, Urbana-Champaign, IL.

October 2012, **plenary speaker**, 6th International ICST Conference on Performance Evaluation Methodologies and Tools (ValueTools 12), Corsica.

October 2012, **invited talks**, INFORMS Annual Meeting, Charlotte, NC.

January 2013, **distinguished lecture**, joint between Electrical Engineering Department and Management Science and Engineering, Stanford University, CA.

February 2013, **keynote speaker**, FuturICT Workshop, Media Lab, MIT, Cambridge, MA.

February 2013, **invited talk**, Banff Workshop on Asymptotics of Large-Scale Interacting Networks, Banff, Canada.

April 2013, **invited talk**, Game Theory and Human Behavior Symposium, USC, CA.

April 2013, **invited talk**, MIT Information and Communications Technologies Conference, Cambridge, MA.

June 2013, **invited talk**, Systems, Information, Learning, and Optimization Workshop, Madison, WI.

July 2013, **plenary speaker**, SIAM Conference on Control and Its Applications, San Diego, CA.

September 2013, **invited paper**, Allerton Conference on Communication, Control, and Computing, University of Illinois, Urbana-Champaign, IL.

February 2014, **invited talk**, Institute for Pure and Applied Mathematics (IPAM) workshop on "Stochastic Gradient Methods," UCLA, CA.

April 2014, **invited seminar**, Fuqua Business School, Duke University.

June 2014, **plenary talk**, W-PIN+NetEcon 2014: The Joint Workshop on Pricing and Incentives in Networks and Systems, Austin, TX.

August 2014, **plenary talk**, Modeling and OPtimization: Theory and Applications (MOPTA) conference, Lehigh University, PA.

August 2014, **invited talk**, GraphEx Symposium, MIT Endicott House, Dedham, MA.

September 2014, **invited paper**, Allerton Conference on Communication, Control, and Computing, University of Illinois, Urbana-Champaign, IL.

December 2014, **invited seminar**, Bloomington School of Informatics and Computing, Indiana University.

January 2015, **invited seminar**, EE Distinguished Seminar Series, UCLA.

April 2015, **invited seminar**, Columbia Business School, Columbia University.

May 2015, **invited seminar**, Department of Industrial Engineering and Management Sciences, Northwestern University.

May 2015, **invited seminar**, Operations Research Center, MIT.

May 2015, **invited seminar**, Center for Research on Computation and Society (CRCS), Harvard University.

July 2015, **plenary talk**, 2015 International Symposium on Mathematical Programming.

September 2015, **keynote talk**, 3rd International Workshop on Self-Adaptive and Self-Organising Socio-Technical Systems.

October 2015, **plenary talk**, Workshop on Information and Networks (WIN).

November 2015, **invited tutorial**, INFORMS.

December 2015, **plenary talk**, Conference on Neural Information Processing Systems (NIPS).

December 2015, **plenary talk**, IEEE Global Conference on Signal and Information Processing (GlobalSIP).

February 2016, **invited colloquium**, School of Electrical and Computer Engineering, Cornell University.

February 2016, **invited seminar**, MIT Stochastics and Statistics Seminar Series.

March 2016, **invited seminar**, Institute for Mathematics and its Applications (IMA), Data Science Seminar Series.

March 2016, **invited talk**, Workshop at Mathematical Biosciences Institute at Ohio State.

May 2016, **invited talk**, European Meeting on Networks.

July 2016, **invited talk**, SIAM Annual Meeting.

July 2016, **invited tutorial**, NSF Workshop on Cyber-Physical Systems Applications to the Power Grid.

September 2016, **invited talk**, IDSS Launch Event.

October 2016, **invited talk**, Workshop on Local Algorithms, MSR New England.

December 2016, **invited talk**, CDC workshop on Teams, Games, and Control.

April 2017, **invited seminar**, Distinguished Lecture Series, University of Toronto.

May 2017, **invited talk**, Marketplace Innovation Workshop, Stanford.

July 2017, **plenary talk**, Applied Probability Society Conference, Northwestern University.

July 2017, **invited tutorial**, 21th IFORS Conference (IFORS 2017), Quebec, Canada.

September 2017, **invited speaker**, Workshop on Social and Economic Networks, University of Chicago, Booth School of Business.

October 2017, **invited speaker**, 55th Annual Allerton Conference 2017.

March 2018, **invited speaker**, Societal Networks Workshop, Simons Institute for the Theory of Computing.

April 2018, **invited speaker**, "Operations in a Digital Age: Data, Modeling and Optimization," Cornell Tech.

April 2018, **invited seminar**, Columbia University.

July 2018, **plenary talk**, 23rd International Symposium on Mathematical Theory of Networks and Systems (MTNS2018)

October 2018, **distinguished lecture**, Illinois Distinguished Lectures in Operations Research.

February 2019, **invited speaker**, MIT College of Computing Launch Event.

March 2019, **invited speaker**, Optimization and Statistical Learning Workshop.

May 2019, **invited seminar**, Princeton (nominated and ranked first in the voting carried

among all the graduate students and postdocs in the Electrical Engineering Department).

May 2019, **keynote speaker**, Coalition Theory Network European Conference - Aix Marseille University.

October 2019, **invited seminar**, Georgia Tech.

December 2019, **invited speaker**, NeurIPS Workshop on Bridging Game Theory and Deep Learning.

January 2020, **invited speaker**, Tobin Center on Economic Policy, Workshop on Digital Markets, Yale University.

March 2020, **invited speaker**, Women in Data Science Workshop.

March 2020, **invited speaker**, Optimization for Machine Learning 2020 Workshop, Marseille, France.

April 2020, **distinguished lecture**, Operations Research and Data Science Distinguished Seminar Series, Texas A&M.

April 2020, **keynote speaker**, Edinburgh Workshop on Optimization and Operational Research.

June 2020, **plenary speaker**, 1st Rocky Mountain Workshop on Decisions, Autonomous Systems, and Controls, Colorado.

August 2020, **invited speaker**, C3DTI, Science of Digital Transformation, California.

September 2020, **plenary speaker**, MIT AI Cures Conference, Data-driven Clinical Solutions for COVID-19.

November 2020, **invited speaker**, School of Industrial and Systems Engineering, Georgia Tech.

November 2020, **invited speaker**, MIT Optimization for Machine Learning ++.

November 2020, **distinguished lecture**, Electrical and Computer Engineering Distinguished Seminar Series, UT Austin.

January 2021, INFORMS Auction and Market Design Seminar Series, Yale University.

January 2021, **keynote speaker**, Robustness in Machine Learning and Optimization: Minmax Approach, Sabanci University.

March 2021, **invited speaker**, Networks and Games Webinar Series, India.

April 2021, **distinguished lecture**, Keller Colloquium in Computing and Mathematical Sciences, California Institute of Technology.

May 2021, **invited speaker**, MIT Special Ops: Next-Generation AI Systems.

June 2021, **invited speaker**, Electrical and Computer Engineering Spring Colloquium, University of Washington.

June 2021, **invited speaker**, AI Seminar Series, Istanbul Technical University.

July 2021, **invited speaker**, SIAM Conference on Control and Its Application (CT21)

July 2021, **invited speaker**, MIT Lincoln Laboratory Guest Lecture on Robust AI .

October 2021, **invited speaker**, Games, Decisions and Networks Seminar.

PhD Student List

Former PhD Students

Lobel, Ilan, "Bayesian Learning in Social Networks," completed July 2009 (co-supervised with Professors Daron Acemoglu, Munther Dahleh); currently an Associate Professor at NYU.

Njoroge, Paul, "Two-Sided Markets and Efficiency in the Internet," completed May 2010; currently a Consultant at Liberty Mutual.

Bimpikis, Kostas, "Strategic Delay and Information Exchange in Endogenous Social Networks," completed June 2010 (co-supervised with Professor Daron Acemoglu); currently an Associate Professor at Stanford University.

Stein, Noah, "Exchangeable and Structured Correlated Equilibria in Games," completed March 2011 (co-supervised with Professor Pablo Parrilo).

ParandehGheibi, Ali, "Dissemination of Delay-Sensitive Information: Coding Algorithms and Control Policies," completed Fall 2011 (co-supervised with Professor Muriel Medard).

Candogan, Ozan, "Dynamics in Games," completed 2013 (co-supervised with Professor Pablo Parrilo); currently an Associate Professor at Chicago University.

Wei, Ermin, "Distributed Optimization in Multi-Agent Networks," completed July 2014; currently an Assistant Professor at Northwestern University.

Drakopoulos, Kimon, "Strategic Experimentation in Social Networks," completed May 2016 (co-supervised with Professor John Tsitsiklis); currently an Assistant Professor at University of Southern California.

Adam, Elie, "A Theory of Cascades in Networks," completed 2017 (co-supervised with Professor Munther Dahleh).

Lim, Yongwhan, "On a Theory of Diffusion in Networks," (on medical leave).

Lee Yu, Christina, "Solving Linear Systems of Equations," completed 2017 (co-supervised with Professor Devavrat Shah), currently an Assistant Professor at Cornell University.

Makhdoumi, Ali, "Information Provision in Rating Systems and Traffic Systems," completed 2018, currently an Assistant Professor at Duke University.

Vanli, Denizcan, "Coordinate Descent Methods for Large-Scale Optimization," completed 2021.

Current PhD Students

Siderius, James, "Propagation of Credit Freezes in Financial Networks."

Meigs, Emily, "Information Design in Online Platforms."

Fallah, Alireza, "Robust Optimization Methods in Machine Learning."

Pattathil, Sarath, "Opportunistic Gradient Methods for Minmax Problems."

Master's Theses

Huang, Xin, "Efficiency and Braess' Paradox under Pricing in General Networks," completed May

2005.

Mukherjee, Shubham, "Efficient Resource Allocation through Pricing in Wireless Cellular CDMA Networks," completed May 2005.

Simsek, Alp, "Analysis of Critical Points for Nonconvex Optimization," completed May 2005, **Ernst A. Guillemin Thesis Award, 2nd place**.

Ahmed, Ebad, "Economic Aspects of Network Coding," completed May 2007 (co-supervised with Professor Muriel Medard).

Stein, Noah, "Separable and Low-Rank Games," completed May 2007 (co-supervised with Professor Pablo A. Parrilo), **Ernst A. Guillemin Thesis Award, 1st place**.

ParandehGheibi, Ali, "Fair Resource Allocation in Multiple Access Channels," completed May 2008 (co-supervised with Professor Muriel Medard).

Candogan, Ozan, "Optimization and Control of Wireless Networks," completed May 2009 (co-supervised with Professor Pablo Parrilo).

Wei, Ermin, "Second-order Methods for Distributed Optimization," completed May 2010, **Ernst A. Guillemin Thesis Award, 2nd place**.

Hung, Benjamin, "Optimization-Based Selection of Influential Agents in a Rural Afghan Social Network," completed May 2010.

Drakopoulos, Kimon, "Observational Learning with Finite Memory," completed May 2011 (co-supervised with Professor John Tsitsiklis), **Ernst A. Guillemin Thesis Award, 2nd place**.

Betser, Dina, "Extracting and Refining User-Desired Service Level Agreements for Computing Services," 6A MEng program with Google, expected May 2012.

Adam, Elie, "Diffusion of Innovations in Social Networks," completed May 2012 (co-supervised with Professor Munther Dahleh).

Chen, Annie, "Fast Distributed Methods for Multi-Agent Optimization over Networks," completed May 2012.

Lee, Christina, "Computing Stationary Distributions of Markov Chains, Locally," completed May 2013 (co-supervised with Professor Devavrat Shah).

Lee, Ji Young, "Existence of Competitive Equilibria in Combinatorial Auctions," completed January 2015 (co-supervised with Professor Pablo Parrilo).

Siderius, James, "Propagation of Credit Freezes in Financial Trust Networks," completed May 2018.

Fallah, Alireza, "Robust Accelerated Gradient Methods for Machine Learning", completed May 2019.

List of Postdoctoral Associates and Fellows

Current Postdocs

Name	Dates of Appointment	PhD Granting Institution	Position

Amirhossein Reisizadeh	2021-present	UC, Santa Barbara	Postdoc, LIDS
Jiawei Zhang	2021-present	Chinese University of Hong Kong	Postdoc, LIDS
Kaiqing Zhang	2021-2022	UIUC	Postdoc, LIDS

Previous Postdocs

Name	Current Title	Current Employer
Muhammed Sayin	Assistant Professor	Bilkent University
Farzan Farnia	Assistant Professor	Chinese University of Hong Kong
Francesca Parisa	Assistant Professor	Cornell University
Aryan Mokhtari	Assistant Professor	Texas A&M
Mert Gurbuzbalaban	Assistant Professor	Rutgers University
Insoon Young	Assistant Professor	Univ. of Southern California
Mohamed Mostagir	Assistant Professor	University of Michigan
Alex Teytelboym	Associate Professor	University of Oxford, Economics Department
Azarakhsh Malekian	Associate Professor	University of Toronto
Alireza Tahbaz-Salehi	Professor	Northwestern University
Ercan Yildiz	Manager Data Science, Causal Inference	Etsy
Ishai Menache	Principal Research Manager Cloud Operations Research	Microsoft Research
Chris T.K. Ng	Research Scientist	Bell Labs, Alcatel Lucent
Atilla Eryilmaz	Professor	Ohio State University
Ali Kakhbod	PhD student	MIT, Economics Department