Mert Gürbüzbalaban

Contact Information	Department of Management Science & Information Systems, Rutgers Business School 100 Rockafellar Road, Room 5142, Piscataway, NJ 08854 United States	Phone: (617)324-0645, Web: http://mert-g.org/ E-mail: mg1366@rutgers.edu
CURRENT POSITION	 Rutgers University, USA Tenure-track Assistant Professor in the Dep Information Systems (MSIS), Rutgers University 	, j
Previous Position	 Massachusetts Institute of Technology, U Postdoctoral Associate at the Laboratory for (July 2014 - Aug 2016), hosted by Prof. A Parrilo. 	Information Decision Systems (LIDS)
Education	 Courant Institute, New York University, Ph.D. in (Applied) Mathematics (May 2012) Awarded Kurt Friedrichs Prize for an ou M.S. in Mathematics (May 2009). 	, GPA: 4.00/4.00.
	 École Polytechnique, France B.Sc., M.S. (Diplôme d'ingénieur, Diplôme Applied Mathematics and Economics, May 2 	
	 Bogazici University, Turkey B.Sc. in Electrical-Electronics Engineering, I B.Sc. in Mathematics, May 2005. Valedictorian. 	May 2005.
Industrial Positions	Bloomberg LLC , New York Full-time Quantitative Researcher and Softwa mented mathematical models that extract volat predict dividend payments and borrow cost of s and seasonality pattern analysis.	ility from the options market data and
	Citadel LLC , New York Full-time Quantitative Researcher: Devised and and trading strategies for high-frequency equit cessing becomes the key. Analyzed, optimized s tools from probability theory, data science and	y markets where large-scale data pro- strategies using parallel computing and
Primary Research Interests	Machine learning and optimization, data science research. Development of efficient optimization address challenges in high-dimensional data analytics.	algorithms and statistical methods to

Funding	Total research funding received personally amounts to \$1,096,070. The projects are:
	1. Office of Naval Research: PI for the project "Robust Primal-Dual Algorithms for Saddle Point Problems with Applications to Multi-Agent Systems". Awarded \$326,648.
	2. NSF DMS Division: PI for the project "Langevin MCMC Methods for Machine Learning". Awarded \$180,009.
	3. NSF CCF Division: Single PI for the project "Communication-Efficient Distributed Algorithms for Machine Learning". Awarded \$464,412. https://www.nsf.gov/awardsearch/showAward?AWD_ID=1814888
	4. NSF DMS Division: Single PI for the project "Beyond With-replacement Sampling for Large-Scale Data Analysis and Optimization". Total award is \$125,001. https://nsf.gov/awardsearch/showAward?AWD_ID=1723085&HistoricalAwards=false
In Press / Published Journal Publications	*All the authors are in alphabetical order except in some cases when there were collabo- rations with early-career researchers from engineering or computer science departments, the order was often non-alphabetical where the early career researchers were typically listed first to accomodate the culture in these research domains and to emphasize their contributions.
	Total number of citations: 919 (As of September 2021)
	1. Mert Gürbüzbalaban, Xuefeng Gao, Yuanhan Hu, Lingjiong Zhu, Decentralized Stochastic Gradient Langevin Dynamics and Hamiltonian Monte Carlo, Accepted to Journal of Machine Learning Research (67 pages), To Appear, 2021. URL: https://arxiv.org/abs/2007.00590 Citations received: 2.
	2. Xuefeng Gao, Mert Gürbüzbalaban, Lingjiong Zhu, Global Convergence of Stochas- tic Gradient Hamiltonian Monte Carlo for Non-Convex Stochastic Optimization: Non- Asymptotic Performance Bounds and Momentum-Based Acceleration, Accepted to Op- erations Research, To Appear, 2021. (Financial Times 50 Journal), Citations re- ceived: 34.
	3. M. Gürbüzbalaban, Asuman Ozdaglar, Pablo A. Parrilo, <i>Why Random Reshuffling Beats Stochastic Gradient Descent</i> , Mathematical Programming, 186 (49-84), 2021. Citations received: 115.
	4. Necdet S. Aybat, Alireza Fallah, Mert Gürbüzbalaban, Asuman Ozdaglar. <i>Robust Accelerated Gradient Method</i> , SIAM Journal on Optimization 30(1) (2020): 717-751. Citations received: 23.
	5. Mert Gurbuzbalaban, Asuman Ozdaglar, Nuri D. Vanli, Stephen J. Wright. <i>Ran-</i> domness and Permutations in Coordinate Descent Methods, Mathematical Program- ming volume 181, pages 349-376 (2020). Citations received: 8.
	6. Mert Gürbüzbalaban, Asuman Ozdaglar, Pablo A. Parrilo, <i>Convergence Rate of Incremental Gradient and Incremental Newton Methods</i> , SIAM Journal on Optimization, 29.4 (2019): 2542-2565. Citations received: 18.
	7. Nuri D. Vanli, Mert Gürbüzbalaban, Asuman Ozdaglar, <i>Global Convergence Rate of Proximal Incremental Aggregated Gradient Methods</i> , SIAM Journal on Optimization, 2018, 28(2), pp.1282-1300. Citations received: 36.

8. Aryan Mokthari, Mert Gürbüzbalaban, Alejandro Ribeiro, Surpassing Gradient Descent Provably: A Cyclic Incremental Method with Linear Convergence Rate, SIAM Journal on Optimization 28, no. 2 (2018): 1420-1447. Citations received: 27.

9. Mert Gürbüzbalaban, Asuman Ozdaglar, Pablo A. Parrilo, On the Convergence Rate of Incremental Aggregated Gradient Algorithms, SIAM Journal on Optimization, 27(2), 1035-1048, 2017. Citations received:113.

10. Nicola Guglielmi, Mert Gürbüzbalaban, Tim Mitchell, Michael L. Overton, *Approximating the Real Structured Stability Radius with Frobenius Norm Bounded Perturbations*, SIAM Journal on Matrix Analysis and Applications, 38(4), 1323-1353, 2017. Citations received: 4.

11. Mert Gürbüzbalaban, Asuman Ozdaglar, Pablo A. Parrilo, A globally convergent incremental Newton method, Mathematical Programming 151.1 (2015): 283-313. Citations received: 41.

12. Julie Eaton, Sara Gründel, Mert Gürbüzbalaban, Michael L. Overton, *Polynomial root radius optimization with affine constraints*, Mathematical Programming 165, no. 2 (2017): 509-528. Citations received: 1.

13. Nicola Guglielmi, Mert Gürbüzbalaban, Michael L. Overton, Fast approximation of the H_{∞} norm via optimization over spectral value sets, SIAM Journal on Matrix Analysis and Applications 34, no. 2 (2013): 709-737. Citations received: 53.

14. Mert Gürbüzbalaban, Michael L. Overton, *On Nesterov's Nonsmooth Chebyschev-Rosenbrock Functions*, Invited paper, Nonlinear Analysis: Theory, Methods & Applications 75.3 (2012): 1282-1289 (Special Issue on Optimization). Citations received: **31.**

15. Vincent D. Blondel, Mert Gürbüzbalaban, Alexandre Megretski and Michael L. Overton, *Explicit Solutions for Root Optimization of a Polynomial Family With One Affine Constraint*, IEEE Transactions on Automatic Control 57.12 (2012): 3078-3089. Citations received: 19.

16. Mert Gürbüzbalaban, Michael L. Overton, Some regularity results for the pseudospectral abscissa and pseudospectral radius of a matrix, SIAM Journal on Optimization 22.2 (2012): 281-285. Citations received: 9.

ACCEPTED17. Mert Gürbüzbalaban, Umut Simsekli, Lingjiong Zhu, The Heavy-Tail PhenomenonCONFERENCEin SGD, International Conference on Machine Learning (pp. 3964-3975). PMLR, 2021.PAPERSURL: https://arxiv.org/pdf/2006.04740.pdf Citations received: 12.

18. Bugra Can, Saeed Soori, Maryam M. Dehnavi, Mert Gürbüzbalaban, *L-DQN:* An Asynchronous Limited-Memory Distributed Quasi-Newton Method, Accepted, To Appear at the IEEE Conference on Decision and Control (CDC), 2021.

19. Mert Gürbüzbalaban, Yuanhan Hu, *Fractional moment-preserving initialization schemes for training fully-connected neural networks*, Proceedings of the 24th International Conference on Artificial Intelligence and Statistics (AISTATS), PMLR 130:2233-2241, 2021.

URL: https://arxiv.org/pdf/2005.11878.pdf Citations received: 4.

20. Xuefeng Gao, Mert Gürbüzbalaban, Lingjiong Zhu, Breaking Reversibility Accel-

erates Langevin Dynamics for Global Non-Convex Optimization, (in Advances in Neural Information Processing Systems (NeurIPS) Conference). Proceedings of Machine Learning Research, volume 33, pp. 17850-17862, 2020. Citations received: 16.

21. Yossi Arjevani, Joan Bruna, Bugra Can, Mert Gürbüzbalaban, Stefanie Jegelka, Hongzhou Lin, *Inexact DEcentralized Accelerated Augmented Lagrangian Method*, Proceedings of the Neural Information Processing Systems (NeurIPS) Conference, vol. 33, pages 20648-20659, 2020. Citations received: 5.

22. Umut Simsekli, Lingjiong Zhu, Yee Whye Teh, Mert Gürbüzbalaban, *Fractional Underdamped Langevin Dynamics*, Proceedings of the 37th International Conference on Machine Learning, PMLR 119:8970-8980, 2020. Citations received: 10.

23. Saeed Soori, Konstantin Mischenko, Aryan Mokhtari, Maryam M. Dehnavi, Mert Gürbüzbalaban, *DAve-QN: A Distributed Averaged Quasi-Newton Method with Local Superlinear Convergence Rate.* Proceedings of the 23rd International Conference on Artificial Intelligence and Statistics (AISTATS) 2020, Palermo, pp. 1965-1976, Italy. PMLR: Volume 108. Citations received: 8.

24. Saeed Soori, Bugra Can, Mert Gürbüzbalaban, Maryam M. Dehnavi, *ASYNC: A Cloud Engine with Asynchrony and History for Distributed Machine Learning*, 34th IEEE International Parallel & Distributed Processing Symposium (IPDPS), pp. 429 - 439, 2020.

25. Bugra Can, Mert Gürbüzbalaban, Lingjiong Zhu, Accelerated Linear Convergence of Stochastic Momentum Methods in Wasserstein Distances, International Conference in Machine Learning (ICML), 2019. Published in Proceeding of the Machine Learning Research (PMLR) 97:891-901. 2019. Citations received: 18.

26. Necdet S. Aybat, Alireza Fallah, Mert Gürbüzbalaban, Asuman Ozdaglar, A Universally Optimal Multistage Accelerated Stochastic Gradient Method, (In Advances in Neural Information Processing Systems (NeurIPS) Conference). Proceedings of Machine Learning Research, pp. 8523-8534, vol 32, 2019. Citations received: 23.

27. Thanh H. Nguyen, Umut Simsekli, Mert Gürbüzbalaban, Gäel Richard, *First Exit Time Analysis of Stochastic Gradient Descent Under Heavy-Tailed Gradient Noise*, In Advances in Neural Information Processing Systems (NeurIPS) Conference. Proceedings of Machine Learning Research pp. 273-283, vol 32, 2019. Citations received: 14.

28. Umut Simsekli, Levent Sagun, Mert Gürbüzbalaban, A Tail-Index Analysis of Stochastic Gradient Noise in Deep Neural Networks, International Conference on Machine Learning (ICML) 2019. Published in Proceeding of the Machine Learning Research (PMLR), 97:5827-5837 (Best Paper Honorable Mention Award), Citations received: 86.

29. Saeed Soori, Aditya Devarakonda, Zachary Blanco, James Demmel, Mert Gürbüzbalaban, Maryam M. Dehnavi, *Reducing Communication in Proximal Newton Methods for Sparse Least Squares Problems*, Proceedings of the 47th International Conference on Parallel Processing (ICPPC) pp. 1-10, August 2018. (Former title: Avoiding Communication in Proximal Methods for Convex Optimization Problems) Citations received: 8.

30. Mert Gürbüzbalaban, Asuman Ozdaglar, Pablo A. Parrilo, Nuri D. Vanli, When

Cyclic Coordinate Descent Outperforms Randomized Coordinate Descent, Accepted with a Spotlight Invitation, In Proceedings of the 31st International Conference on Neural Information Processing Systems (pp. 7002-7010), December 2017. Citations received: 18.

31. Necdet S. Aybat, Mert Gürbüzbalaban, *Decentralized Computation of Effective Resistances and Acceleration of Consensus Algorithms*, 5th IEEE Global Conference on Signal and Information Processing (GlobalSIP), (pp. 538-542), Nov 2017. Citations received: 9.

32. Nuri D. Vanli, Mert Gürbüzbalaban, Asuman Ozdaglar, *Global convergence rate of incremental aggregated gradient methods for nonsmooth problems*, Proceedings of the 2016 IEEE 55th Conference on Decision and Control (CDC), pp. 173-178, December 2016. Citations received: 1.

33. Nuri D. Vanli, Mert Gürbüzbalaban, Asuman Ozdaglar, A Simple Proof for the Iteration Complexity of the Proximal Gradient Algorithm, , OPT 2016 Workshop, 30th Conference on Neural Information Processing Systems (NeurIPS), 2016. Citations received: 3.

34. Aryan Mokthari, Mert Gürbüzbalaban, Alejandro Ribeiro, A Double Incremental Aggdfregated Gradient Method with Linear Convergence Rate for Large-scale Optimization, 42nd IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), pp. 4696-4700, 2017. Citations received: 5.

35. Julie Eaton, Sara Gründel, Mert Gürbüzbalaban, Michael L. Overton, *Polynomial Stabilization with Bounds on the Controller Coefficients*, 8th IFAC Symposium on Robust Control Design (ROCOND), 2015 Jan 1;48(14):382-7. Citations received: 1.

36. Vincent D. Blondel, Mert Gürbüzbalaban, Alexandre Megretski and Michael L. Overton, *Explicit Solutions for Root Optimization of a Polynomial Family*, Proceedings of the 49th IEEE Conference on Decision and Control (CDC 2010), pp. 485-488, 2010. Citations received: **3**.

37. Alexander Camuto, Xiaoyu Wang, Lingjiong Zhu, Chris Holmes, Mert Gürbüzbalaban, Umut Simsekli. Asymmetric Heavy Tails and Implicit Bias in Gaussian Noise Injections, Proceedings of the 38th International Conference on Machine Learning, PMLR 139:1249-1260, 2021. URL: https://arxiv.org/abs/2102.07006

SUBMITTED/IN38. Mert Gürbüzbalaban, Andrzej Ruszczyński and Landi Zhu, A Robust StochasticREVIEW JOURNALSubgradient Method, Submitted to Journal of Optimization Theory and Applications,
2021. URL: https://arxiv.org/abs/2006.04873. Citations received: 4.

39. Umut Simsekli^{*}, Mert Gürbüzbalaban^{*}, Thanh H. Nguyen, Gaël Richard, Levent Sagun, On the Heavy-Tailed Theory of Stochastic Gradient Descent for Deep Neural Networks, Invited paper (Minor Revision), Journal in Machine Learning Research (JMLR), 2019 (available on arxiv.org, * denotes equal contribution). URL: https://arxiv.org/abs/1912.00018 Citations received: 11.

40. Yuanhan Hu, Xiaoyu Wang, Xuefeng Gao, Mert Gurbuzbalaban, Lingjiong Zhu, Non-Convex Stochastic Optimization via Non-Reversible Stochastic Gradient Langevin Dynamics, Submitted to Informs Stochastic Systems Journal, 2021. URL: https://arxiv.org/abs/2004.02823 Citations received: 2.

	41. Alireza Fallah, Mert Gurbuzbalaban [*] , Asuman Ozdaglar, Umut Simsekli, Lingjiong Zhu, Robust Distributed Accelerated Stochastic Gradient Methods for Multi-Agent Networks, Submitted to Journal in Machine Learning Research (JMLR), 2019 (In Re- vision). URL: https://arxiv.org/abs/1910.08701 Citations received: 8. *Corresponding author.
	42. Bugra Can, Saeed Soori, Necdet S. Aybat, Maryam M. Dehvani, Mert Gürbüz- balaban, Randomized Gossiping with Effective Resistance Weights: Performance Guar- antees and Applications, In Revision, 2019. URL: https://arxiv.org/abs/1907.13110 Citations received: 2.
	43. Nurdan Kuru, Ilker S. Birbil, M. Gürbüzbalaban, Sinan Yildirim, Differentially Private Accelerated Optimization Algorithms, Submitted to SIAM Journal on Opti- mization (In Second Review), URL: https://arxiv.org/abs/2007.00590. Citations received: 1.
Submitted/In Review Conference Papers	44. Hongjian Wang, Mert Gürbüzbalaban, Lingjiong Zhu, Umut Simsekli, Murat A. Erdogdu, Convergence Rates of Stochastic Gradient Descent under Infinite Noise Variance, Submitted, 2021. URL: https://arxiv.org/abs/2102.10346
	44. Alexander Camuto, George Deligiannidis, Murat A. Erdogdu, Mert Gürbüzbalaban [*] , Umut Simsekli [*] , Lingjiong Zhu, Fractal Structure and Generalization Properties of Stochastic Optimization Algorithms, Submitted, 2021. [*] Corresponding authors, the authors are alphabetically listed.
	45. Saeed Soori, Bugra Can, Bourun Mu, Maryam M. Dehnavi, Mert Gürbüzbalaban, TENGraD: Exact and Efficient Layer-wise Factorization for Natural Gradient Descent Methods, Submitted, 2021.
In preparation	46. Mohsen Ghassemi, Mert Gürbüzbalaban, Anand Sarwate, A Universally Optimal Online PCA Algorithm (19 pages, draft available upon request).
	47. Waheed Bajwa, Rishabh Dixit, Mert Gürbüzbalaban, Escaping Saddle Points with Accelerated Gradient Methods (10 pages, draft available upon request). *Title is subject to change.
	48. Xuan Zhang, Necdet S. Aybat, Mert Gürbüzbalaban, Robust Primal-Dual Methods for Computing Saddle Points, In preparation. (28 pages, draft available upon request).
	49. Bugra Can, Mert Gürbüzbalaban, Risk-Averse Accelerated Gradient Methods, In preparation (28 pages, draft available upon request).
Honors and Awards	

Dean's Summer Fellowship Award	2021
Awarded the Office of Naval Research Grant for \$326,648 till June 2024	2021
Awarded the NSF grant DMS-2053485 for \$180,009 till June 2024	2021
Dean's Young Research Fellow Award	2020
Best Paper Honorable Mention Award, ICML Conference	2019
RBS Junior Faculty Research Excellence Award	2019
Awarded the NSF grant CCF-1814888 for \$464,412 till June 2021	2018
Awarded the NSF grant DMS-1723085 for \$125,000 till June 2020	$2010 \\ 2017$
XX Householder Symposium Travel Award	2017
Society for Industrial and Applied Mathematics (SIAM) Travel Award	2015
Kurt Friedrichs Award for the best dissertation, NYU	2013
	007-2012
French Government Scholarship (Bourse d'études), École Polytechnique 2	005-2007
Bronze Medal recipient in Ecole Polytechnique Scientific Project Competit	
the "Biometric Iris Recognition" project.	2006
Ranked 1st among all graduating engineering majors, all mathematics ma	
all double major students from Bogazici University	2005
Graduated from the double major program of Bogazici University with a	ι double-
major GPA record $(3.98/4.00)$	2005
Nadir Orhan Bengisu Award, given to the best graduating student in the E	lectrical-
Electronics Engineering Department, Bogazici University, Turkey	2005
Silver Medal in National Mathematical Olympiad, organized by Akdeniz Un	•
Turkey	1999

TEACHING & Rutgers University

Curriculum Development

- Created and designed the course "Optimization Methods for Machine Learning" for our Masters In Information Technology and Analytics (MITA) Program.
- Resigned the content for our Ph.D. course "Introduction to Linear Statistical Models" to allow more modern topics and techniques arising in business data analytics.
 (Primary) Instructor for
- (Primary) Instructor for
 - Linear Programming (Fall 2017, 2019)
 - Operations Management (Spring 2019, Spring 2020, Spring 2021)
 - Introduction to Linear Statistical Models (Fall 2016-2021)
 - Business Research Methods (Spring 2017)
 - Optimization Methods for Machine Learning (Spring 2020, Fall 2021)

Courant Institute, New York University

2007-2014

2016- present

- (Primary) Instructor for
 - Calculus (Summer 2009)
 - Multivariable Analysis (Spring 2014, graduate level)
- Teaching Assistant:
 - Partial Differential Equations for Finance (Spring 2011, graduate level)
 - Introduction to Math Analysis II (Spring 2010, graduate level)
 - Calculus I (Fall 2010)
 - Probability and Statistics (Spring 2009)
 - Probability, Statistics and Decision Making (Spring 2008)
 - Algebra and Calculus (Fall 2008)
- Grader:
 - Derivative Securities for Finance (Fall 2009)
 - Partial Differential Equations for Finance (Spring 2011, graduate level)

Industrial Experience	Barclays Capital, New York Sur Quantitative Summer Associate: Implemented and calibrated a quasi-Ga rate model with local volatility. Devised a hybrid model with an interest and developed a forward-induction based PDE approach for its calibrate volatility.	st rate skew
	Jump Trading, Chicago Sur Summer Intern: Development and implementation of novel automatized strategies for high-frequency trading of index futures	nmer 2010 quantitative
	AXA Investment Managers , Quant Team, Paris S Visiting Quantitative Researcher: The performance of variance reduction for the pricing of exotic options with Monte-Carlo and Quasi-Monte Car are compared using theoretical analysis and experimental study. Improve of the generic Monte Carlo Pricer.	rlo Methods
Selected Talks	Selected Invited Seminar Talks	
	Alibaba (US) Damo Academy invited by Prof. Wotao Yin	June 2021
	Massachusetts Insitute of Technology (MIT) OptML++ Seminars	Nov 2021
	University of Michigan Ann Arbor - CSP Seminars	March 2020
	NeurIPS Workshop in Optimization Dec	cember 2019
	Northwestern University Industrial Engineering and Management Sciences	s Fall 2019
	Penn State ISE Department Colloquium	2019
	Workshop on Theoretical Advances in Deep Learning, Istanbul	2019
	Princeton ORFE Seminar	Spring 2019
	MIT LIDS Talk	Fall 2018
	Rutgers Business School	Fall 2018
	Los Alamos National Lab,	Feb 2017
	Rutgers Dept. of Industrial Eng,	April 2017
	NYU Courant Institute,	Feb 2017
	Cornell University, Dept. of Industrial Eng. and Operations Research	Oct 2015
	University of Michigan–Ann Arbor, Department of Electrical Engineering	Feb 2014
	Courant Institute Mathematics Department	May 2012
	Bogazici University Mathematics Department Seminar	Dec 2011
	Koç University Mathematics Department Seminar	Dec 2011

	École Polytechnique Fédérale de Lausanne	Dec 2011
	University of Manchester Numerical Analysis Seminar	Sept 2011
	Selected Conference Talks	
	SIAM Conference on Optimization	2021
	SIAM Conference on Computational Science and Engineering (CSE)	2021
	Informs Annual Conference	2020
	International Conference on Continuous Optimization (ICCOPT)	2019
	Informs Annual Conference	2018, 2019
	Allerton Conference	October 2017
	Rutgers DIMACS Workshop on Distributed Optimization	August 2017
	SIAM Conference in Optimization	May 2017
	Householder Symposium	June 2017
	Allerton Conference	October 2016
	AMS Fall Southeastern Sectional Meeting, Raleigh	Nov 2016
	ICIAM 2015, Beijing	Aug 2015
	MOPTA 2015, Lehigh University	July 2015
	ISMP 2015 Conference, Pittsburg	July 2015
	Mid-Atlantic Numerical Analysis Day	Nov 2011
	Householder Symposium XVIII, Tahoe City	June 2011
	IEEE Conference on Decision and Control (CDC)	Dec 2010
Primary Research Advisor For	Bugra Can, PhD student in Operations Research, Rutgers Business School, 2017 - present.	
	Yuanhan Hu, PhD student in Operations Research, Rutgers Business School, 2019 - present.	
	Landi Zhu, PhD student in Operations Research, Rutgers Business present. (co-advised with Prof. Andrzej Ruszczyński)	School, 2019 -
	Rishabh Dixit, PhD student in Electrical Engineering, Rutgers Un present (co-advised with Prof. Waheed Bajwa)	iversity, 2019 -
	Yassine Laguel, postdoctoral associate, starting January 2021.	

VISITING	Onur Unlu, undergraduate summer intern, Bilkent University, Summer 2021.
Students Advised	Nurdan Kuru, visiting Ph.D. student from Sabanci University (advised by Prof. Bilbil and Prof. Yildirim), Spring 2019.
	Saeed Soori, visiting Ph.D. student, 2018-2019, (advised by Prof. Dehnavi at the University of Toronto).
	Alireza Fallah, visiting Ph.D. student from MIT (advised by Prof. Ozdaglar), 2018.
	Nuri Denizcan Vanli, visiting Ph.D. student from MIT (advised by Prof. Asu Ozdaglar), 2016-2017.
Professional Service	Track Chair in Operations Research for the Institute of Industrial and Systems Engineers (IISE) 2019 Conference.
	Informs Nicholson Prize Committee (2021)
	Special Issue Editor for the "Probability in the Engineering and Informational Sciences" (PEIS) journal with editor-in-chief Prof. Sheldon Ross, Special Issue Title: "Probability in Service Operations and Data Analytics".
	Panel participant in the "National Science Foundation" to evaluate research proposals and referee for the grant agency "Natural Sciences and Engineering Research, Canada".
	Conference on Learning Theory (COLT), Reviewing Committee, 2020.
	Admission commitee for the PhD in Operations Research, Rutgers Business School. 2017 - present.
	Session organizer, Informs Annual Conference, 2018-2021.
	Session organizer, Informs Optimization Conference, Clemson University, 2020 (cancelled/postponed due to Covid).
	Session organizer, Informs International Conference, Hawaii, 2016.
Reviewer for	Operations Research, Mathematics of Operations Research, INFORMS Journal On Op- timization, Journal of Machine Learning Research, Mathematical Programming, SIAM Journal on Optimization, Optimization Methods and Software, Neural Information Processing Systems Conference, International Conference on Machine Learning, Con- ference on Learning Theory (COLT), SIAM Journal on Mathematics of Data Science, SIAM Journal on Control and Optimization, SIAM Journal on Scientific Computing, SIAM Journal on Matrix Analysis and Applications, IEEE Transactions on Automatic Control, IEEE Transactions on Control of Network Systems, IEEE Global Conference on Signal and Information Processing (GlobalSIP), IEEE Access, IEEE Transactions on Signal Processing, BIT Numerical Mathematics, Experimental Mathematics, Journal of Nonlinear Analysis
University Service	Rutgers Business School New Brunswick Undergraduate Program Policy Committee (2021 - present).
	Rutgers University SASHP Faculty Mentor (Spring 2021, Fall 2021).

Rutgers University Scarlet Honor Council Member 2020-2021.

	Organizer for the departmental seminars, (Department of Management Science and Information Systems, Rutgers University), September 2016-present (jointly with Thomas Lidbetter).
	Member of the Masters in Information Technology and Analytics Curriculum Review Committee, Rutgers Business School, September 2019 - present.
	Admission commitee for the PhD in Operations Research, Rutgers Business School. 2017 - present.
	Advisor for the summer research projects of Ehsan Teymourian, Landi Zhu and Bugra Can at the Rutgers Business School.
	Representative for Management Science and Information Systems Department at Rut- gers Business School:
	- AACSB Accreditation Meeting, March 2019.
	 Member of the hiring committee for the Ph.D. program in Operations Research, September 2017-present.
	- AACSB Accreditation Meeting, October 2016.
	- RBS Graduation Ceremony, 2019.
	 MBA and graduate programs open house, Rutgers Business School, Newark, September 2016-2021.
Languages	Turkish (Native), English (Fluent), French (Fluent), German (Advanced Beginner)