Garud N. Iyengar

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EDUCATION

Ph.D.	1998	Dept. of Electrical Engg.
		Stanford University, Stanford, CA.
M.S.	1994	Dept. of Electrical Engg.
		Stanford University, Stanford, CA.
B. Tech.	1993	Dept. of Electrical Engg.
		Indian Institute of Technology (I.I.T.), Kanpur, India
		President's Gold Medal (Valedictorian)

APPOINTMENTS

Oct 2017 – present	Associate Director for Research, Data Science Institute, Columbia University
July 2013 - present	Chairman, IEOR Dept., Columbia University
July 2010 - present	Professor, IEOR Dept., Columbia University
Jan. 2006 - June 2010	Associate Professor, IEOR Dept., Columbia University
Jan. 1998 - Dec. 2006	Assistant Professor, IEOR Dept., Columbia University

VISITING APPOINTMENTS

June 2010 – present	Professor, National Center for Biological Sciences, Bangalore, India
Jan. 2007 - June 2007	Associate Professor, London Business School, London, UK
Sep. 2007 - July 2008	Associate Professor, Rockefeller University, New York.

AWARDS AND HONORS

- *INFORMS Fellow*: 2018
- *NSF CAREER Award*: 2000.
- *Cuthbert C. Hurd Fellowship*: School of Engineering, Stanford University 1993-1995.
- *Angelo P. Semino Fellowship*: School of Engineering, Stanford University 1993-1995.
- *President's Gold Medal* 1993: Awarded by IIT Kanpur to the valedictorian.
- *Outstanding Reviewer.* IEEE J. on Automatic Control. 2006.

Journal publications: Accepted/Appeared

1. A. Federgruen, D. Guetta, G. Iyengar. Two Echelon Distribution Systems with Random Demands and Storage Constraints. To appear in Naval Research Logistics. 2018.

2. Ç Koçyiğit, G. Iyengar, D. Kuhn, and W. Wieseman. Distributionally Robust Mechanism Design. To appear in Management Science. 2018.

3. M. Haas-Heger, G. Iyengar, and M. Ciocarlie. Passive Reaction Analysis for Grasp Stability. IEEE Transactions on Automation Science and Engineering (2018). doi:10.1109/TASE.2018.2803620

4. S. G. Das, M. Rao, and G. Iyengar. Universal lower bound on the free-energy cost of molecular measurements. *Physical Review E* 95.6 (2017): 062410.

5. Y. Chen, R. Iyengar and G. Iyengar. Modeling Multimodal Continuous Heterogeneity in Conjoint Analysis A Sparse Learning Approach. *Marketing Science.* 36(1) (2017): 140-156. doi:10.1287/mksc.2016.0992

6. Y. Luo, G. Iyengar, and V. Venkatasubramanian. Soft regulation with crowd recommendation: Coordinating self-interested agents in sociotechnical systems under imperfect information. PloS one 11.3 (2016): e0150343.

7. M. Haugh, G. Iyengar, and C. Wang. Tax-aware dynamic asset allocation. *Operations Research.* 64(4) (2016): 849-866.

8. G. Iyengar, M. Haugh, and I. Song. A Generalized Risk-Budgeting Approach to Portfolio Construction. To appear in *Journal of Computational Finance.* 2016.

9. C. Abad and G. Iyengar. Optimal Maintenance Policies for Automated Demand Respose Devices, with G. Iyengar. *IEEE Transactions on Smart Grid.* 7(3) (2016): 1411-1419.

10. Y. Luo, G. Iyengar, V. Venkatasubramanian. Soft Regulation with Crowd Recommendation: Coordinating Self-Interested Agents in Sociotechnical Systems under Imperfect Information. *PLoS ONE* 11(3): e0150343. 2016. doi:10.1371/journal.pone.0150343.

11. C. Abad and G. Iyengar. Portfolio Selection with Multiple Spectral Risk Contraints. *SIAM J. Finan. Math.*, 6(1), 467-486, 2015.

12. D. Soudry, S. Keshri, P. Stinson, M.H. Oh, G. Iyengar, and L. Paninski. Efficient 'Shotgun' Inference of Neural Connectivity from Highly Sub-sampled Activity Data. *PLoS Comput Biol*, 11(10), 2015.

13. R. Bookstaber, P. Glasserman, G. Iyengar, Y. Luo, V. Venkatasubramaniam, and Z. Zhang. Process systems engineering as a modeling paradigm for analyzing systemic risk in financial networks. *Journal of Investing.* Summer 2015.

14. N. S. Aybat and G. Iyengar. An alternating direction method with increasing penalty for stable principal component pursuit. *Computational Optimization and Applications.* 2014. (DOI:10.1007/s10589-015-9736-6)

15. G. Iyengar and M. Rao. A cellular solution to an information-processing problem. *Proc. Nat. Acad. Sc.*, 2014. (DOI: 10.1073/pnas.1406608111)

16. N. S. Aybat and G. Iyengar. Unified approach for minimizing composite norms. *Mathematical Programming*, Ser. A. 144. (2014):181-226 (Winner, SIAM Student Paper Prize, 2011)

17. R. Carrasco, G. Iyengar and C. Stein. Single machine scheduling with job-dependent convex cost and arbitrary precedence constraints. *Oper. Res. Letters*, **41**, 436-441, 2013. (DOI: 10.1016/j.orl.2013.05.008)

18. C. Chen, G. Iyengar and C. C. Moallemi. An axiomatic approach to systemic risk. *Management Science*, **59**, 1373-1388, 2013. (Honorable Mention, INFORMS George Nicholson Student Paper Competition, 2011)

19. G. Iyengar and K-C. Ma. Fast gradient descent method for mean-CVaR optimization. *Annals of OR*. **205**, 203-212, 2013.

20. N. S. Aybat and G. Iyengar. A first-order augmented Lagrangian method for compressed sensing. *SIAM J. Optimization*, **22** 429-459, 2011. (Runner-up, 2010 INFORMS Computing Society Student Paper Award, 2010)

21. W. Kets, G. Iyengar, S. Bowles and R. Sethi. Extremal inequality in stable networks. *Games and Economic Behavior*, **73**, 215-226, 2011.

22. G. Iyengar, D. Phillips, and C. Stein. Approximating semidefinite packing problems. *SIAM J. Optimization*, **21**, 231-268, 2011. (Featured Article)

23. N. S. Aybat and G. Iyengar . A first-order penalty method for compressed sensing. *SIAM J. Optimization*, **21**, 287-313, 2011.

24. G. Iyengar and K-C. Ma. A behavioral finance based tick-by-tick model for price and volume. *Journal of Computational Finance*, **14**(1), 2010.

25. G. Iyengar and K-C. Ma. Robust pension fund management. *Journal of Asset Management*, **11**, 163-177, 2010.

26. G. Iyengar and K-C. Ma. Cash Flow management: a risk management approach. *North American Actuarial Journal*, **13**(3), 370-378, 2009.

27. G. Iyengar and A. Kumar. Optimal procurement of divisible good with capacitated suppliers. *Review of Economic Design*, **12**(2), pp. 129-154, 2008.

28. E. Erdoğan, D. Goldfarb and G. Iyengar. Robust portfolio management. *Computational Finance*, **11**(4), pp. 71-98, 2008.

29. E. Erdoğan and G. Iyengar. On two-stage convex chance constrained problems. *Math Methods in Oper. Res.*, **65**(1) 115-140, 2007.

30. E. Erdoğan and G. Iyengar. An active set method for problems with one conic quadratic constraint. *SIAM J. Optim.* **17**(2) 459-484. 2006.

31. E. Erdoğan and G. Iyengar. Ambiguous chance constrained problems and robust optimization. *Math. Prog., Ser. B*, **107**(1-2), pp. 37-61, 2006. (Winner, INFORMS George Nicholson Student Paper Competition, 2005.)

32. M. T. Çezik and G. Iyengar. Cuts for mixed 0-1 semidefinite programming. *Math. Prog.*, **104**(1) 179-202, 2005.

33. D. Bienstock and G. Iyengar. Faster algorithms for packing and covering problems. SIAM J. on Computing. **35**(4) , pp. 825-854, 2006. (Invited paper)

34. G. Iyengar and W. Kang. Inverse conic optimization. *Oper. Res. Let.*, **33**(3) 319-330. 2005.

35. G. Iyengar. Universal investment in markets with transaction costs. *Math. Finance*, **15**(2) 359-371, 2005.

36. G. Iyengar and K. Sigman. Exponential penalty function control of a network of loss queues. *Ann. Appl. Prob.* **14**(4), pp.1698-1740, 2004.

37. G. Iyengar. Robust Dynamic Programming. *Math. Oper. Res.*, **30**(2) 1-21, 2005.

38. D. Goldfarb and G. Iyengar. Robust portfolio selection problems. *Math. Oper. Res.*, **28**(1) 1-37, 2003.

39. D. Goldfarb and G. Iyengar. Robust quadratically constrained programs and applications. *Math. Prog. Ser. B.* **97**(3) 495-515, 2003.

40. T. M. Cover and G. Iyengar. Growth optimal investment in horse race markets with costs. *IEEE Trans. Info. Theory.* **46**(7) 2675-2683, 2000.

41. N. R. Garud and V. Rajaraman. Nondeterministic decision tables in process control. Sadhana. Indian Acad. Sc. **21**(3), pp. 381-393, June, 1996.

Journal publications: Under review

42. Y. Luo, G. Iyengar, and V. Venkatasubramanian. Social influence makes self-interested crowds smarter: an optimal control perspective. IEEE Journal on Transactions on Computational Social Systems. 2017

43. A. Federgruen, D. Guetta, G. Iyengar. Multi-Item Two Echelon Distribution Systems with Random Demands: Bounds and Effective Strategies. Manufacturing and Service Operations Management. 2016.

44. A. Federgruen, D. Guetta, G. Iyengar. Information Relaxation Based Lower Bounds for The Stochastic Lot Sizing Problem with Advanced Demand Information. Management Science. 2016.

45. O. Toubia, G. Iyengar, A. Lemaire, and R. Bunnell. Modeling and Measuring Consumer Preferences for Entertainment Products. Journal of Marketing Research. 2016.

46. C. Chen, G. Iyengar, and C. C. Moallemi. Asset-based Contagion Models for Systemic Risk. *Operations Research*, 2014.

Publications in refereed conferences

1. R. Singal, O. Besbes, A. Desir, V. Goyal, and G. Iyengar. Shapley Meets Uniform: An Axiomatic Framework for Attribution in Online Advertising. WWW 2019.

2. M. Haas-Heger, M. Ciocarlie, C. Papadimitriou, M. Yannakakis, and G. Iyengar. Passive Static Equilibrium with Frictional Contacts and Application to Grasp Stability Analysis. Robotics: Science and Systems. 2018

3. D. Goldfarb, G. Iyengar, and C. Zhou. Semi-Stochastic Frank-Wolfe Algorithms with Away-Steps for Block-Coordinate Structure Problems. AISTAT 2017.

4. M. H. Heger, G. Iyengar and M. Ciocarlie. On the Distinction between Active and Passive Reaction in Grasp Stability Analysis. Proc. 12th International Workshop on the Algorithmic Foundations of Robotics (WAFR-12). 2016.

5. N. S. Aybat, Z. Wang, and G. Iyengar. An asynchronous distributed proximal gradient method for composite convex optimization. Proc. 32nd International Conference on Machine Learning (ICML-15). 2015.

6. M-H Oh, S. Keshri, and G. Iyengar. Graphical Model for Basketball Match Simulation. MIT Sload Sports Analytics Conference, 2015.

7. D. Soudry, S. Keshri, P. Stinson, M.H. Oh, G. Iyengar, L. Paninski. A shotgun sampling solution for the common input problem in neural connectivity inference. COSYNE (2015).

8. V. Goyal, G. Iyengar, K. Myers, R. Z. Qiu, and Q. Schwarz. Optimal Price Rebates for Demand Response under Power Flow Constraints. IEEE Smart Grid Comm. November 2014.

9. G. Iyengar, R. Carrasco, and C. Stein. Energy aware scheduling: minimizing total energy cost and completion time by α-points and α-speeds. 10th Workshop on Models and Algorithms for Planning and Scheduling Problems. MAPSP 2011.

10. G. Iyengar, D. Phillips, and C. Stein. Feasible and accurate algorithms for covering semidefinite programs. SWAT 2010. *Acceptance rate: 36/78 = 50%*

11. G. Iyengar and A. Kumar. An equilibrium model for matching impatient demand with patient supply over time. Proceedings of the 8th annual em ACM Conference on Electronic Commerce, 2007. *Acceptance rate: 42/154 = 27%*

12. G. Iyengar and A. Kumar. Characterizing optimal adword auctions. Proceedings of *Second Workshop on Sponsored Search*, 2006. *Acceptance rate: ≈ 30%*

13. G. Iyengar, D. Phillips, and C. Stein. Approximation algorithms for semidefinite packing problems with applications to MAXCUT and graph coloring. Proceedings of *IPCO XI*, 2005. *Acceptance rate: 34/119 = 28.6%*

14. G. Iyengar and D. Bienstock. Concurrent flows in $\mathcal{O}^*(\frac{1}{\epsilon})$ time. Proceedings of the 36th Annual *ACM Symposium on Theory of Computing (STOC)*, 2004. *Acceptance rate 70/271 = 25.8%*

15. G. Iyengar and M. T. Çezik. Cutting plane methods for mixed 0-1 semidefinite programs. Proceeding of *IPCO VIII*. pp. 251-263, 2001. *Acceptance rate: 32/108 = 29.6%*

16. D. Pal, G. N. Iyengar, and J. M. Cioffi. A new method of channel shortening with applications to discrete multi-tone (DMT) systems. Proc. *IEEE Int. Conf. Comm. (ICC '98)*. vol. 2, pp. 763–768, 1998. *Acceptance rate: ≈ 30%*

17. G. Iyengar and T. Cover. Growth optimal portfolios with transaction costs. Proc. *International Symposium on Information Theory*. pp. 173, 1998. *Acceptance rate: ≈ 50%*

18. G. Iyengar. Voice Channel and its ramifications. Proc. *31st Asilomar Conference on Signals, Systems and Computers*. pp. 1354-1358, 1997. *Acceptance rate: ≈ 30%*

19. G. Iyengar. Voice Channel. Proc. *Intl. Symp. on Information Theory*. pp. 332, 1997. *Acceptance rate: ≈ 50%*

CHAPTERS IN COLLECTIONS

1. Parametric network flows and adword auctions. OPTIMA, April 2010.

2. Robust Optimization, *Encyclopedia of Quantitative Finance*. Wiley.

WORKING PAPERS

1. R. Bookstaber, P. Glasserman, G. Iyengar, Y. Luo, V. Venkatasubramanian, and Z. Zhang. Process Systems Engineering as a Modeling Paradigm for Analyzing Systemic Risk in Financial Networks. Office of Financial Research (OFR) Working Paper 15-1, February 2015. Available at http://goo.gl/wnlsSk.

2. V. Goyal, G. Iyengar and Z. Qiu. Optimal execution of demand response contracts. 2012.

3. G. Iyengar, D. Phillips, and C. Stein. Bidding strategically with budget constraints in sequential auctions. 2006.

4. G. Iyengar and G. Gallego. Managing correlated callable products on a network. 2005.

5. G. Gallego, G. Iyengar, R. Phillips and A. Dubey. Managing flexible products on a network. 2004.

6. G. Iyengar and A. Kumar. Characterizing optimal keyword auctions. 2006.

7. G. Iyengar. Faster algorithms for approximate capacity allocation. IEOR Dept. Columbia University. 2003.

8. G. Iyengar. Discrete time growth optimal investment with transaction costs. 2002.

9. G. Iyengar and M. T. Çezik. Semidefinite relaxations for the traveling salesman problem. 2001.

10. D. Pal, G. N. Iyengar and J. Cioffi. A new method for channel shortening with applications to discrete multi-tone (DMT); Part I: theory and Part II: training. Technical Report. Information Systems Laboratory, Electrical Engg. Dept. Stanford University. 1998.

11. G. Iyengar. Martingales on trees: A duality approach to pricing contingent claims. Technical Report. Statistics Dept. Stanford University. 1998.

12. G. Iyengar. Analysis of growth rate in continuous time markets with transaction costs. Technical Report. Statistics Dept. Stanford University. 1997.

13. G. Iyengar, A. Agashe, and N. Karmarkar. Optimal Riemannian metric for pattern recognition. Bell Laboratories, Lucent Technologies.

Drafts available on request.

Selected invited talks

- Operations Management Seminar. Desautels Faculty of Management, McGill University. April 13, 2018.
- New York City Operations Day. NYU. March 2, 2018.
- Systems Leadership Series. Stevens Institute of Technology. Sept. 12th. 2017.
- Third Workshop on Marketplace Innovation. Stanford. June 1-2, 2017
- Workshop on the Interface of Biology and Theoretical Computer Science. National Center for Biological Science, Bangalore. December 2016.
- Operations Seminar Series. Kellogg Business School. November 2016.
- Distinguished Lecture Series. UTC Institute for Advanced Systems Engineering (UTC-IASE) at the University of Connecticut. October 2016.
- London Business School. November 2015.

- Optimization Seminar. Operations Research and Financial Engineering. Princeton University. April 2015.
- Department of Mathematical Sciences Seminar. Air Force Academy. Jan 10th, 2015.
- Decision Sciences Seminar. Fuqua Business School. Duke University. April 9, 2014.
- Industrial Engineering Colloquium. Department of Industrial and Manufacturing Engineering. Penn State. October 2013.
- Quantitative Finance Colloquium. McCombs School of Business. University of Texas at Austin. November 2013.
- Computer Science Colloquium. Harvard University. October 2013.
- The 19th Annual Workshop on Financial Engineering: Quantitative Asset Management, Center for Financial Engineering. Columbia University. November 2012.
- Joint Operations Research and Operations Management Seminar. Tepper School of Business. Carnegie Mellon University. September 2012.
- IEEE Information Theory Workshop. Lausanne. 2012.
- MIT OR center. September 2011.
- Operations Management Seminar. NYU Stern School of Business. April 2011
- Spring 2011 Energy and Environment Affiliates Program Conference. Stanford University. March 2011.
- IPAM Workshop on Modern Trends in Optimization and Its Applications. Workshop IV: Robust Optimization. Nov. 16-19. 2010.
- Workshop on Computational methods in System Biology. August 10 - 12, 2010. National Center for Biological Sciences. Bangalore. India.
- Workshop on Computational Methods in Finance. March 22 - 24, 2010. Thematic Program on Quantitative Finance: Foundations and Applications. Fields Institute. Toronto.
- MIT OR Center. April 2010.
- Robust Optimization for Supply Chains. Boğaziçi University, Istanbul, Turkey, Sept. 2009.
- Robust Optimization for Supply Chains. International Symposium on Mathematical Programming (ISMP), Chicago, Aug. 2009.
- Robust Optimization for Asset Allocation. IE Seminar, University of Minnesota, Feb 2008.
- Robust Optimization for Asset Allocation. College of William and Mary, Nov 2008.
- Robust Optimization for Asset Allocation. IEMS Seminar, Northwestern University, Oct. 2008.
- Robust Optimization for Asset Allocation. Center for Information and Systems Engineering (CISE) Seminar, Boston University, Oct. 2008.
- Robust Optimization for Asset Allocation. Foundations of Computational Mathematics, Hong Kong, June 2008.
- INFORMS Annual Meeting: 2001-present

Professional Service

- Associate Editor: *Management Science*, *Operations Research* and *Naval Research Logistics*.
- Associate Editor: *Mathematics of Operations Research.* 2012-16.
- Co-creator of a Coursera MOOC on Financial Engineering and Risk Management.
- Program Committee Member, INFORMS Optimization Conference 2008.
- Member, George Nicholson Student Paper Competition Committee, 2004-2006.
- Member of the Organizing Committee for IPCO 2004.
- Referee for *Mathematical Programming*, *Econometrica*, *IEEE Transactions on Information Theory*, *IEEE Transactions on Communications*, *Signal Processing Letters*, *SIAM J. on Optimization*, *SIAM J. on Computing*, *SIAM J. on Matrix Anal. Appl.*, *Operations Research Letters*, *Networks*, *Mathematical Finance*, *IIE Transactions*, *SODA*, *STOC*.

ADMINISTRATIVE SERVICE

- Associate Director, Data Science Institute, 2017-present.
- Chair, IEOR Department, 2013-present.
- Member, Faculty Advisory Committee, School of Professional Studies. Sept. 2016-present.
- Member, Executive Committee of the Data Science Institute. July 2012-present.
- Member, Education Committee of the Institute for Data Sciences and Engineering. April 2013-2015.
- Member, Provost's Faculty Advisory Committee on Online Learning. 2013-present.
- Member, Faculty Review Committee of the Provost's Hybrid Learning Faculty Grant Program, 2015-present.
- Chair, Search Committee IEOR Department. 2011-12, 2012-13.
- Director, Undergraduate Programs, IEOR Department. 2009 – 2012.
- Member, MS FE, MS EMS and MS Committee, IEOR Department.
- Departmental representative on the Committee on Instruction (COI). 2008-2010.
- Speaker Series Coordinator for Joint IEOR-DRO Distinguished Speaker Series: 1998-2001.
- Undergraduate adviser, 1999-present.
- Member, Trustees' Long Range Planning Committee, Fu Foundation School of Engineering and Applied Science, Columbia University: 2005-2007.

GRANTS

NSF	CCR-00-09972	2001-06	*Robust and semidefinite optimization* (NSF CAREER Award)
	DMS-01-04282	2002-05	*Second-order cone programming: Algorithms and applications* (with D. Goldfarb)
	DMS-06-06712	2006-09	*Inverse problems, robust optimization and mathematical programs with equilibrium constraints: Algorithms and Applications* (with D. Goldfarb)
	DMS-1016571	2010-13	*Fast First-Order Methods for Large-Scale Structured and*

			Sparse Optimization (with D. Goldfarb and K. Scheinberg)
	CMMI-1235023	2012-15	*Optimization Based Methods for Systemic Risk Management* (with C. Moallemi) $ 229,782
DARPA	N660011824028	2018-19	Real-time control of network physical structures to bypass complexity: Optimization, Stochastics, and Structure Recognition (with D. Bienstock, J. Blanchet, and V. Goyal)
ONR	N000140310514	2005-08	*Algorithms for Math. Prog.* (with D. Goldfarb)
		2008-12	*Compressed Sensing: Recovery Algorithms and Analysis* (with D. Goldfarb, Wotao Yin (Rice), and Stanley Osher (UCLA))
DOE	DE-FG02 -92ER25126	2003-06	*Robust conic optimization* (Joint with D. Goldfarb)
	DE-FG02 -08ER25856	2008-11	*Algorithms for Mathematical Programming with emphasis on bi-level models* (with Goldfarb)
	DE-AR0000235	2012-14	*Highly dispatchable and distributed demand response for the integration of Distributed Generation* (with Autogrid and LBNL)
NIH	R21 AA021909-01	2013-15	*Neighborhood interventions in alcohol-related homicide: a systems approach* (with M. Cerda and S. Galea)
Mediaocean		2013-2016	*The attribution problem and ad-channel optimization* $ 131,143
Goldman Sachs		2004-05	*Robust asset-liability management* (with D. Goldfarb)
		2015-16	*Tax-aware dynamic index tracking* (with M. Haugh)
OCP SA		2015-18	*Commodity Pricing in Oligopolistic Markets*
		2018-20	*Robust algorithms for Computing Nash Equilibria*
Bloomberg LP		2015-16	*Bloomberg LP. Kernel methods in Finance*
Graphen.ai		2017-2020	*Novel graph computing paradigms*

PATENTS:

- Systems and methods for providing robust investment portfolios. US 10/022,647.
- Determining load reductions in demand response systems. PCT/US2012/000401.

TEACHING

- IEOR E4570 Machine Learning for OR and FE: Spring 2013
- EEOR E6616 Convex optimization: Fall 1999, Spring 2003, Spring 2010-12, Spring 2014
- IEOR E4630 Asset allocation: Spring 2009-11
- IEOR E4007 Optimization models for Financial Engineering: Fall 2000-02, Sum. 2003-06, Fall 2008-15
- IEOR E4404 Simulation: Fall 2001, Spring 2002-04
- IEOR E4406 Facility layout and routing: Fall 2001.
- IEOR E4600 Applied Integer Programming: Spring 2004-05.
- IEOR E4703 Monte Carlo Simulation: Fall 06

- IEOR E4706 Discrete-time Financial Engineering: Fall 2005-06
- IEOR E6612 Robust Optimization. Spring 2005.
- IEOR E8100 Conic and semidefinite optimization: Spring 2002.
- EEOR E6616 Convex Optimization: Spring 2013-16.

Teaching evaluations available upon request.

DOCTORAL STUDENTS

1. M. T. Çezik (2001): *Semidefinite Methods for Traveling Salesman and other Combinatorial Optimization Problems.* First position: Tilburg University

2. Emre Erdoğan (2006): *Ambiguous Chance Constrained Problems and Applications.* Winner of the Nicholson Prize for 2005. First position: ING Investment Management

3. David Phillips (2006, co-advisor: C. Stein): *Semidefinite Packing Problems and Applications.* First position: College of William & Mary

4. Anuj Kumar (2007): *Robust Mechanism Design with Applications in Supply Chain Contracts.* First position: AQR Capital Management.

5. Anuj Manuja (2008): *Data-driven Robust Methods for Staffing and Routing in Service Networks.* First position: Barclays Capital

6. Ka Chun Ma (2009): *Essays in Asset Allocation.* First position: Chinese University of Hong Kong.

7. N. Serhat Aybat (2011): *Fast Algorithms for Compressive Sensing.* First position: Pennsylvania State University

8. Rodrigo Carrasco (2013, co-advisor C. Stein): *Resource Cost Aware Scheduling Problems.* First position: Universidad Adolfo Ibàñez

9. Yupeng Chen (2014, co-advisor R. Iyengar, Wharton): *Essays on Inventory Management and Conjoint Analysis.* First position: Wharton.

10. Chen Chen (2014, co-advisor C. Moallemi): *The Theory of Systemic Risk.* First position: Shanghai Tech University.

11. Carlos Abad (2015, co-advisor V. Modi): *Smart Grid Risk Management.* First position: post-doc at the Precourt Institute for Energy at Stanford University.

12. Daniel Guetta (2015, co-advisor A. Federgruen): *Applied Inventory Management: New Approaches to Hard Problems.* First position: Palantir.

13. Rhea Qiu (2016, co-advisors V. Goyal, C. Stein, Y. Zhong) *Approximation Algorithms for Demand-Response Contract Execution and Coflow Scheduling.* First position: Amazon.

14. Suraj Keshri (PhD candidate, co-advisor L. Panininsky)

15. Min-hwan Oh (PhD candidate, co-advisor L. Paninsky)

16. Francois Fagan (PhD candidate, co-advisor J. Cunningham)

17. Hal Cooper (PhD candidate)

18. Chaoxu Zhou (PhD candidate, co-advisor D. Goldfarb)

19. Jalaj Bhandari (PhD Candidate, co-advisor J. Cunningham)