Yinyu Ye
16 Stowe Lane, Menlo Park, CA 94025
Home (650) 233-8988 and Office (650) 723-7262
http://www.stanford.edu/~yyye
Email: yinyu-ye@stanford.edu
(Updated October 31, 2013)

1. Education

1988: Ph.D. major in Engineering-Economic Systems and minor in Operations Research. Thesis Title: "Interior Algorithms for Linear, Quadratic and Linearly Constrained Convex Programming," Stanford University, Stanford, California. Ph.D. Thesis Committee (in alphabetic order): Sam Chiu, George Dantzig, David Luenberger, Edison Tse (Advisor).
1987: Visiting Ph.D. Student of Michael Todd, School of Operations Research and Industrial Engineering, Cornell University, Ithaca, New York.
1983: M.S. in Engineering-Economic Systems, Stanford University.
1982: B.S. in Systems and Control, Huazhong University of Science and Technology (HUST), Wuhan, the People's Republic of China.

2. Professional Experience

04/02---: K.T. Li Professor of Engineering, and Director of the Industrial Affiliates Program of Department of Management Science and Engineering and, by courtesy, Electrical Engineering, Stanford University, Stanford. Areas: Mathematical Programming, Algorithm Design and Analysis, Network and Information System Applications.
12/07---: Honorary professor, The Hong Kong Polytechnic University.
04/06-07/06: Visiting Chair Professor, Tsinghua University, China.
01/98---04/02: Henry B. Tippie Research Professor, Department of Management Sciences and Applied Mathematical and Computational Sciences, University of Iowa, Iowa.
12/00---05/01: Visiting Professor, Department of Systems Engineering and Engineering Management, Chinese University of Hong Kong, Hong Kong.
09/98---11/98: Visiting Fellow, Mathematical Science Research Institute, UC Berkeley, California.
09/93---01/98: Professor, Department of Management Sciences, University of Iowa, Iowa.
08/93---12/93: Visiting Scientist, Department of Operations Research and Industrial Engineering, Cornell University, Ithaca, NY.
06/93---present: Adjunct Professor, Institute of Applied Mathematics, the Chinese Academy, Beijing, China.
06/93---present: Adjunct Professor, Department of Mathematics, Fudan University, Shanghai and Huazhong University of Science and Technology, Wuhan, China.
09/90---08/93: Associate Professor, Department of Management Sciences, University of Iowa, Iowa.
07/91---08/91: Visiting Scientist, Department of Mathematical and Computational Sciences, Rice University, Houston, TX.
09/88---08/90: Assistant Professor, Department of Management Sciences, University of Iowa, Iowa.
11/87---08/88: Research Scientist, Optimization Software Development, Integrated Systems Inc., Santa Clara, California.
09/86---06/87: Lecturer, Mathematical Programming and Systems Optimization, Department of Engineering-Economic Systems, Stanford University.
06/83---06/86: Research Assistant, Mathematical Programming, Decision Systems and Network Planning, Department of Engineering-Economic Systems, Stanford University.

3. Publications (singly authored if no author names shown)

3.1 Refereed Journal Papers

[J150] "Close the Gaps: A Learning-while-Doing Algorithm for a Class of Single-Product Revenue Management Problems," (Wang, Deng and Ye), to appear in *Operations Research*, 2013.

[J149] "Analytical results and efficient algorithm for optimal portfolio deleveraging with market impact," (Jingnan Chen, Liming Feng, Jiming Peng, Yinyu Ye), to appear in *Operations Research*, 2013.

[J148] "A Behavioral Model of "Muddling Through" in the Chinese Bureaucracy: The Case of Environmental Protection," (Xueguang Zhou, Hong Lian, Leonard Ortolano, Yinyu Ye), China Journal, 70 (2013) 120-147.

[J147] "A Levenberg-Marquardt method with approximate projections," (R Behling, A Fischer, M Herrich, A Iusem, Y Ye), Computational Optimization and Applications, (2013) 1-22.

[J146] "Space tensor conic programming," (L Qi and Y Ye), to appear in Computational Optimization and Applications, (2013).

[J145] "A Dynamic Algorithm for Facilitated Charging of Plug-In Electric Vehicles," (Nicole Taheri, Robert Entriken, Yinyu Ye), Working Paper, 2012; to appear in *IEEE Transactions on Smart Grid*.

[J144] "Complexity of Unconstrained L2-Lp Minimization," (Xiaojun Chen, Dongdong Ge, Zizhuo Wang, Yinyu Ye), 2012, to appear in *Math Programming*.

[J143] "Newsvendor Optimization with Limited Distribution Information," (Zhu, Zhang and Ye), Working Paper, Management Science and Engineering, Stanford University, November 2006; to appear in *Optimization Methods and Software*.

[J142] "Warmstarting the Homogeneous and Self-Dual Interior Point Method for Linear and Conic Quadratic Problems," (Anders Skajaa, Erling D. Andersen and Yinyu Ye), *Math Programming Computation*; 5(1) (2013) 1-25.

[J141] "On affine motions and bar frameworks in general position," (Alfakih and Ye), Working Paper, September 2010; to appear in *Linear Algebra and Applications*, 438 (1) (2013) 31–36

[J140] "A variational principle for computing nonequilibrium fluxes and potentials in genome-scale biochemical networks" (Fleming, Maes, Saunders, Ye, Palsson), *Journal of Theoretical Biology*, 292 (2012) 71-77.

[J139] "Price of Correlations in Stochastic Optimization" (Agrawal, Ding, Sebari, and Ye), *Operations Research*, 60:1 (2012), 150-162.

[J138] "The cubic spherecial optimization problem," (Zhang, Qi and Ye), *Math of Computation*, 81 (2012) 1513.

[J137] "On stress matrices of (d + 1)-lateration frameworks in general position," (Alfakih, Taheri, and Ye), *Mathematical Programming* 137 (1-2) (2013), 1-17.

[J136] "The Simplex and Policy-Iteration Methods are Strongly Polynomial for the Markov Decision Problem with a Fixed Discount Rate," Math *Operations Res*, 36:4 (2011) 593-603.

[J135] "A Note on Complexity of L-p Minimization" (Ge, Jiang and Ye), *Math Programming*, 129:2 (2011) 285-299.

[J134] "A Unified Framework for Dynamic Prediction Market Design," (Agrawal, Delage, Peters, Wang, and Ye), *Operations Research*, 59:3 (2011) 550-568.

[J133] "Lower Bound Theory of Nonzero Entries in Solutions of L2-Lp Minimization" (Chen, Xu and Ye), *SIAM J. Scientific Computing* 32:5 (2010) 2832-2852.

[J132] “Semidefinite Relaxation of Quadratic Optimization Problems,” (Luo, Ma, So, Ye, and Zhang), *IEEE Signal Processing Magazine* 27:3 (2010) 20-34.

[J131] “Universal Rigidity and Edge Sparsification for Sensor Network Localization” (Zhu, So and Ye), *SIAM J Optimization* 20(6) (2010) 3059-3081.

[J130] “An interior-point path-following algorithm for computing a Leontief economy equilibrium,” (Dang, Zhu and Ye), *Computational Optimization and Applications* 50:2 (2011) 223-236.

[J129] “A FPTAS for Computing a Symmetric Leontief Competitive Economy Equilibrium,” (Zhu, Dang and Ye), *Math Programming* 131 (2012) 113–129

[J128] “Statistical ranking and combinatorial Hodge theory.” (Jiang, Lim, Yao, and Ye), *Math Programming* 127:1 (2011) 203-244.

[J127] “A novel fluence map optimization model incorporating leaf sequencing constraint,” (Jin, Min, Song, Liu, and Ye), *Physics in Medicine and Biology* 55 (2010) 1243-1264.

[J126] “Geometric Rounding: A Dependent Randomized Rounding Scheme,” (Ge, He, Ye, and Zhang), *Journal of Combinatorial Optimization* 22:4 (2011) 699-725.

[J125] “A Note on Equilibrium Pricing as Convex Optimization” (Chen, Ye, Zhang), *Journal of Computational Mathematics* 28:5 (2010) 569–578.

[J124] “Dynamic Spectrum Management with the Competitive Market Model,” (Yao, Armbruster, and Ye), *IEEE Tran on Signal Processing* 58:4 (2010) 2442-2446.

[J123] “Conceptual formulation on four-dimensional inverse planning for intensity modulated radiation therapy,” **(**Lee, Ma, Ye and Xing), *Physics in Medicine and Biology* 54 (2009) 255-266.

[J122] “Bi-Quadratic Optimization over Unit Spheres and Semidefinite Programming Relaxations,” (Ling, Nie, Qi and Ye), *SIAM J. Optimization* 20:3 (2010) 1286-1310.

[J121] “Stochastic Combinatorial Optimization with Controllable Risk Aversion Level,” (So, Zhang and Ye), Math *Operations Res* 34:3 (2009) 522-537.

[J120] “Distributionally Robust Optimization under Moment Uncertainty with Application to Data-Driven Problems,” (Delage and Ye), *Operations Research* 58:3 (2009) 595-612.

[J119] “DSDP5—software for semidefinite programming,” (Benson and Ye), *ACM Tran on Mathematical Software* 34:3 (2008).

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[J115] “The complexity of equilibria: Hardness results for economies via a correspondence with games” (Codenotti, Saberi, Varadarajan and Ye), *Theoretical Computer Science* 408:2-3 (2008) 188-198.

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[J111] “Finding Equitable Convex Partitions of Points in a Polygon Efficiently,” (Carlsson, Armbruster and Ye), *ACM Tran on Algorithms* 6:4 (2010).

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[J96] “A Multi-Exchange Local Search Algorithm for the Capacitated Facility Location Problem,” (Zhang, Chen and Ye), *Math Operations Research* 30:2 (2005) 389-403.

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[J92] “On some interior-point algorithms for nonconvex quadratic optimization”, (Tseng and Ye), *Math Programming* 93 (2003) 217-225.

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[J84] “An improved rounding method and semidefinite relaxation for graph partition,” (Han, Ye, and Zhang), *Math Programming* 92:3 (2002) 509-535.

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[J81] “Convergence results of analytic center estimator,” (Bai, Fu, Tempo, and Ye), *IEEE Tran on Automatic Control* 45:3 (2000) 569-572.

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[J72] “A computational study of the homogeneous algorithm for large-scale convex optimization,” (Andersen and Ye), *Computational Optimization and Applications* 10 (1998) 243-269.

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[J69] “Constrained logarithmic least squares in parameter estimation,” (Bai and Ye), *IEEE Tran on Automatic Control* 44:1 (1999) 182-185.

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[J60] “On the relationship between layered least squares and affine scaling steps,” (Vavasis and Ye), *Lectures in Applied Mathematics* 32 (1996) 857-866.

[J59] “An infeasible interior-point algorithm for solving primal and dual geometric programs,” (Kortanek, Xu, and Ye), *Math Programming* 76 (1997) 155-182.

[J58] “A primal-dual interior-point method whose running time depends only on the constraint matrix,” (Vavasis and Ye), *Math Programming* 74 (1996) 79-120.

[J57] “On homogeneous and self-dual algorithm for LCP,” *Math Programming* 76 (1997) 211-222.

[J56] “Combining interior-point and pivoting algorithms for linear programming,” (Andersen and Ye), *Management Science* 42 (1996) 1719-1731.

[J55] “Improved complexity using higher-order correctors for primal-dual Dikin affine scaling,” (Jansen, Roos, Terlaky and Ye), *Math Programming* 76 (1997) 117-130.

[J54] “Interior-point methods for nonlinear complementarity problem,” (Potra and Ye), *Journal of Optimization Theory and Application* 88 (1996) 617-642.

[J53] “A lower bound on the number of iterations of long-step and polynomial interior-point linear programming algorithms,” (Todd and Ye), *Annals of Operations Research* 62 (1996) 233-252.

[J52] “A convergent algorithm for quantile regression with smoothing splines,” (Bosch, Ye, and Woodworth), *Computational Statistics & Data Analysis* 19 (1995) 613-630.

[J51] “A asymptotical $O(n^{.5}L)$-iteration path-following linear programming algorithm that uses long steps,” (Hung and Ye), *SIAM J. Optimization* 6 (1996) 570-586.

[J50] “A generalized homogeneous and self-dual linear programming algorithm,” (Xu and Ye), *Operations Research Letters* 17:2 (1995) 181-190.

[J49] “A simplification of the homogeneous and self-dual linear programming algorithm and its implementation,” (Xu, Hung and Ye), *Annals of Operations Research* 62 (1996) 151-172.

[J48] “Condition numbers for polyhedra with real number data,” (Vavasis and Ye), *Operations Research Letters* 17 (1995) 209-214.

[J47] “Identifying an optimal basis in linear programming,” (Vavasis and Ye), *Annals of Operations Research* 62 (1996) 565-572.

[J46] “On the von Neumann economic growth problem,” *Math Operations Res* 20 (1995) 617-633.

[J45] “Complexity analysis of an interior-point cutting plane method for convex feasibility problem,” (Goffin, Luo and Ye), *SIAM J. Optimization* 6 (1996) 638-652.

[J44] “Specially structured uncapacitated facility location problems,” (Jones, Lowe, Muller, Xu, Ye, and Zydiak), *Operations Research* 43 (1995) 661-669.

[J43] “A surface of analytic centers and infeasible-interior-point algorithms for linear programming,” (Mizuno, Todd, and Ye), *Math Operations Res* 20 (1995) 135-162.

[J42] “An $O(n^{.5}L)$-iteration homogeneous and self-dual linear programming algorithm,” (Ye, Todd and Mizuno), *Math Operations Res* 19 (1994) 53-67.

[J41] “Combining binary search and Newton's method to compute real roots for a class of real functions,” *Journal of Complexity* 10 (1994) 271-280.

[J40] “Toward probabilistic analysis of interior-point algorithms for linear programming,” *Math Operations Res* 19 (1994) 38-52.

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[J38] “On quadratic and $O(n^{.5}L)$ convergence of a predictor-corrector algorithm for LCP,” (Ye and Anstreicher), *Math Programming* 62 (1993) 537-552.

[J37] “A complexity analysis for interior-point algorithms based on Karmarkar's potential functions,” (Ji and Ye), *SIAM J. Optimization* 4 (1994) 512-520.

[J36] “The optimal choice of inputs under time of use pricing, fixed proportions technology and adjustment costs: an application to industrial firms,” (Spector, Tishler and Ye), *Management Sciences* 41 (1995) 1679-1692.

[J35] “A decomposition variant of the potential reduction algorithm for linear programming,” (Kaliski and Ye), *Management Science* 39 (1993) 757-776.

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[J33] “On finding an interior point on the optimal face of linear programs,” (Mehrotra and Ye), *Math Programming* 62 (1993) 497-516.

[J32] “On the finite convergence of interior-point algorithms for linear programming,” *Math Programming* 57 (1992) 325-335.

[J31] “A quadratically convergent $O(n^{.5}L)$-iteration algorithm for linear programming,” (Ye, Guler, Tapia and Zhang), *Math Programming* 59 (1993) 151-162.

[J30] “Convergence behavior of some interior-point algorithms,” (Guler and Ye), *Math Programming* 60 (1993) 215-228.

[J29] “A fully polynomial-time approximation algorithm for computing a stationary point of the general LCP,” *Math Operations Res* 18 (1993) 334-345.

[J28] “A quadratically convergent polynomial interior-point algorithm for solving entropy optimization problems,” (Potra and Ye), *SIAM J. Optimization* 3 (1993) 843-860.

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[J26] “Implementation of interior-point algorithms for some entropy optimization problems,” (Han, Pardalos and Ye), *Optimization Methods and Software* 1 (1992) 71-80.

[J25] “Solutions of P_0-matrix linear complementarity problems,” (Pardalos, Ye, Han and Kaliski), *SIAM J. Matrix Anal. Appl.* 14 (1993) 1048-1060.

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[J18] “Extensions of the potential reduction algorithm for linear programming,” *Journal of Optimization Theory and Applications* 72 (1992) 487-498.

[J17] “On some efficient interior point methods for nonlinear convex programming,” (Kortanek, Potra and Ye), *Linear Algebra and its Applications* 152 (1991) 169-189.

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[J3] “Recovering optimal dual solutions in Karmarkar's polynomial algorithm for linear programming,” (Ye and Kojima), *Math Programming* 39 (1987) 305-317.

[J2] “A conclusion on `missing number' in ergodic exponents of $s \times s$ stochastic matrices,” *Journal of Huazhong University of Science and Technology* 2 (1983).

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3.2 Books/Monographs

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[C15] *Interior-Point Algorithms: Theory and Analysis*, Wiley-Interscience Series in Discrete Mathematics and Optimization, John Wiley & Sons, Monograph, 1997.

3.3 Refereed Conference Proceeding/Book Chapters Papers
Archival Publications

[C60] “Beyond Convex Relaxation: A Polynomial–Time Non–Convex Optimization Approach to Network Localization,” (Ji, Sze, Zhou, So, and Ye), to appear in *INFOCOM* 2013.

[C59] “The simplex method is strongly polynomial for deterministic Markov decision processes,” (Ian Post and Ye), to appear in *SODA* 2013.

[C58] “Conditions for Correct Sensor Network Localization Using SDP Relaxation,” (Davood Shamsi, Nicole Taheri, Zhisu Zhu, Yinyu Ye), Discrete Geometry and Optimization, Pages 279-301, Springer International Publishing, 2013..

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[C50] “Correlation Robust Stochastic Optimization,” (Agrawal, Ding, Saberi and Ye), Proc. of the SODA 2010.

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[C46] “Parimutuel Betting on Permutations,” (Agrawal, Wang and Ye), Proc. of WINE 2008.

[C40] “Pari-mutuel Markets: Mechanisms and Performance” (Peters, So and Ye), Proc. of WINE 2007.

[C39] “A Note on Equilibrium Pricing as Convex Optimization” (Chen, Ye, Zhang), Proc. of WINE 2007.

[C38] “Stochastic Combinatorial Optimization with Controllable Risk Aversion Level,” (So, Zhang and Ye), Proc. of the *9th International Workshop on Approximation Algorithms for Combinatorial Optimization Problems (APPROX 2006)*, LNCS 4110, pp. 224-235, 2006.

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[C36] “Leontief Economies Encode Nonzero Sum Two-Player Games” (Codenotti, Saberi, Varadarajan and Ye), Proc. of the SODA 2006.

[C35] “On Solving Coverage Problems in a Wireless Sensor Network Using Voronoi Diagrams,” (So and Ye), Proc. of the WINE 2005.

[C34] “On Exchange Market Equilibria with Leontief's Utility: Freedom of Pricing Leads to Rationality,” Proc. of the WINE 2005.

[C33] “Integration of Angle of Arrival Information for Multimodal Sensor Network Localization using Semidefinite Programming,” (Biswas, Aghajan and Ye), Proc. of the 39th Asilomar Conference on Signals, Systems and Computers, 2005.

[C32] “On Approximating Complex Quadratic Optimization Problems via Semidefinite Programming Relaxations is available,” (So, Zhang and Ye), Proc. of the IPCO 2005.

[C31] “Market Equilibria for Homothetic, Quasi-Concave Utilities and Economies of Scale in Production,” (Jain, Vazirani and Ye), SODA '05 Proc. of the sixteenth annual ACM-SIAM symposium on Discrete algorithms.

[C30] “Theory of Semidefinite Programming for Sensor Network Localization,” (So and Ye), Proceedings of the sixteenth annual ACM-SIAM symposium on Discrete algorithms (SODA), 2005, pp. 405-414.

[C29] “Semidefinite Programming for Ad Hoc Wireless Sensor Network Localization” (Biswas and Ye), Proc. of the 3rd international symposium on Information processing in sensor networks, Berkeley, 2004, pp 46-54.

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[C26] “MILP Formulation and Polynomial Time Algorithm for an Aircraft Scheduling Problem,” (Bayen, Tomlin, Ye, and Zhang), Proc. of the 42th IEEE Conference on Decision and Control (CDC), pp 5003-5010, 2003.

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[C22] “A 1.52-approximation algorithm for the uncapacitated facility location problem,” (Mahdian, Ye and Zhang), in Klaus Jansen, Stefano Leonardi and Vijay V. Vazirani (Eds.), Proc. of the 5th International Workshop on Approximation Algorithms for Combinatorial Optimization, APPROX 2002 (Rome, Italy, September 17-21, 2002). Also see “Improved Approximation Algorithms for the Metric Facility Location Problem,” *Lecture Notes in Computer Science* 2462, Springer, 229-242 and *SIAM J Computing* 36(2) (2007) 411-432.

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[C8] “On the Q-order of convergence of interior-point algorithms for linear programming,” in Wu Fang, ed., Proc. of the 1992 Symp on Applied Mathematics (Institute of Applied Mathematics, Chinese Academy of Sciences, 1992).

[C3] “Interior point algorithms for quadratic programming problems” (Pardalos, Ye and Han), Proc. of the Conf. on Optimization Methods and their Applications (in Russian), Nauka, USSR (1990), pp. 194-213.

Other contributions including significant technical reports and book chapters

[C53] "A Distributed Method for Solving Semidefinite Programs Arising from Ad Hoc Wireless Sensor Network Localization," (Biswas and Ye), *Multiscale Optimization Methods and Applications, Nonconvex Optimization and Its Applications*, 2006, Volume 82, 69-84.

[C52] "Probabilistic analysis of semidefinite relaxation detectors in multiple-input, multiple-output systems," (So and Ye), in *Convex Optimization in Signal Processing and Communications*, Chapter 5, D. P. Palomar and Y. C. Eldar, Ed., Cambridge University Press, 2010.

[C45] "Solving Min-Max Multi-Depot Vehicle Routing Problem," (Carlsson, Ge, Subramaniam, Wu and Ye), in *FIELDS Book on Global Optimization*, 2008.

[C43] "On Analyzing Semidefinite Programming Relaxations of Complex Quadratic Optimization Problems," (So, Ye, and Zhang), 8-1, Handbook of Approximation Algorithms and Metaheuristics, ed. Teofilo F. Gonzalez, Chapman & Hall/CRC, 2007.

[C42] "Greedy Algorithms for Metric Facility Location Problems," (So, Ye, and Zhang), 39-1, Handbook of Approximation Algorithms and Metaheuristics, ed. Teofilo F. Gonzalez, Chapman & Hall/CRC, 2007.

[C41] "Semidefinite Programming for Sensor Network and Graph Localization," (So and Ye), in `Robust Optimization-Directed Design' (ed. A.J. Kurdila, P.M. Pardalos, M. Zabarankin), pp. 127-143, Springer, 2006.

[C21] "Semidefinite Programs," in A. Kent and J. Williams eds., *Encyclopedia of Computer Science and Technology*, 44:29 (Marcel Dekker, 2001) 247-361.

[C20] "Semidefinite Programming Relaxations for Nonconvex Quadratic Optimization," (Nesterov, Wolkowics, and Ye), in *Handbook on Semidefinite Programming* (Kluwer, Boston, 2000} 361-419.

[C19] "Approximating Maximum Stable Set and Minimum Graph Coloring Problems with the Positive Semidefinite Relaxation," (Benson and Ye), in M. Ferris and J. Pang eds., *Applications and Algorithms of Complementarity* (Kluwer Academic Publishers, 2000) 1-18.

[C18] "Application of Semidefinite Programming to Circuit Partitioning," (C. Choi and Y. Ye), in P. Pardalos eds., *Approximation and Complexity in Numerical Optimization* (Kluwer Academics Publishers, 2000) 130-136.

[C17] "A simplification to 'a primal-dual interior point method whose running time depends only on the constraint matrix'," (Vavasis and Ye), in S. Zhang et al, eds., High Performance Optimization, Applied Optimization 33 (Kluwer Academic Publication, 2000) pp. 233-243.

[C16] "Semidefinite relaxations, multivariate normal distributions, and order statistics," (Bertsimas and Ye), *Handbook of Combinatorial Optimization* (Vol. 3), D.-Z. Du and P.M. Pardalos (Eds.) pp. 1-19, (1998 Kluwer Academic Publishers).

[C14] "On a Homogeneous Algorithm for a Monotone Complementarity Problem with Nonlinear Equality Constraints," (Andersen and Ye), in Michael C. Ferris and Jong-Shi Pang, eds., Complementarity and variational Problems: State of the art (SIAM, 1997) pp. 1-11.

[C12] "A genuine quadratically convergent polynomial interior point algorithm for linear programming," (Luo and Ye), in Ding-Zhu Du and Jie Sun, eds., Advances in Optimization and Approximation (Kluwer Academic Publishers, Boston, 1994).

[C11] "On the complexity of a column generation algorithm for convex or quasiconvex feasibility problems," (Goffin, Luo and Ye), in W. Hager, D. Hearn and P. Pardalos eds., Large Scale Optimization: State of the Art (Kluwer Academic Publishers, Boston, 1994) pp. 182-191.

[C10] “Average performance of a self-dual interior-point algorithm for linear programming,” (Anstreicher, Ji, Potra and Ye), in P. Pardalos eds., *Complexity in Numerical Optimization* (World Scientific, New Jersey, 1993) pp. 1-15.

[C9] “Translation cuts for convex minimization,” (Burke, Goldstein, Tseng and Ye), in P. Pardalos eds., *Complexity in Numerical Optimization* (World Scientific, New Jersey, 1993) pp. 57-73.

[C7] “A further result on potential reduction algorithm for the P-matrix linear complementarity problem,” in P. Pardalos eds., *Advances in Optimization and Parallel Computing* (North-Holland, NY, 1992) pp. 310-316.

[C6] “A new complexity result on minimization of a quadratic function with a sphere constraint,” in C. Floudas and P. Pardalos eds., *Recent Advances in Global Optimization* (Princeton University Press, NJ, 1992).

[C5] “Interior-point algorithms for solving nonlinear optimization problems,” (Han, Pardalos and Ye), COAL Newsletter 19 (1991) 45-54.

[C4] “Interior-point algorithms for quadratic programming,” in S. Kumar ed., *Recent Developments in Mathematical Programming* (Gordon & Breach Scientific Publishers, Philadelphia, 1991).

[C2] “Computational aspects of an interior point algorithm for quadratic programming problems with box constraints,” (Han, Pardalos and Ye), in T. F. Coleman and Y. Li eds., *Large-Scale Numerical Optimization* (SIAM, Philadelphia, 1990) 92-112.

[C1] “An extension of Karmarkar's algorithm and the trust region method for quadratic programming,” in *Progress in Mathematical Programming* (N. Megiddo ed.), Springer Verlag, New York (1989) 49-63.

3.4 Working Papers

[W20] “The Direct Extension of ADMM for Multi-block Convex Minimization Problems is Not Necessarily Convergent,” (Caihua Chen, Bingsheng He, Yinyu Ye, Xiaoming Yuan), Working Paper, September 2013.

[W19] “A Homogeneous Interior-Point Algorithm for Nonsymmetric Convex Conic Optimization,” (Anders Skajaa and Ye), Working Paper, August, 2012.

[W18] “Complexity Analysis of Interior Point Algorithms for Non-Lipschitz and Nonconvex Minimization,” (W. Bian, X. Chen, and Ye), Working Paper, July, 2012.

[W17] “The Value of Stochastic Modeling in Two-Stage Stochastic Programs with Cost Uncertainty,” (Delage, Arroyo and Ye), Working Paper, Revised January, 2012.

[W16] “Computational Models and Complexities of Tarski's Fixed Points,” (Dang, Qi and Ye), Working Paper, September, 2011

[W15] “Hidden-City Ticketing: the Cause and Impact,” (Wang and Ye), Working Paper, May 2011.

[W14] “Existence of Positive Steady States for Mass Conserving and Mass-Action Chemical Reaction Networks with a Single Terminal-Linkage Class,” (Santiago Akle, Onkar Dalal, Ronan M. T. Fleming, Michael Saunders, Nicole Taheri, Yinyu Ye), May 2011.

[W13] “On Doubly Positive Semidefinite Programming Relaxations,” (Ge and Ye), Working Paper, August 2010.

[W12] “NP-Hardness Results Related to PPAD” (Dang and Ye), Working Paper, January 2010.

[W11] “A Dynamic Near-Optimal Algorithm for Online Linear Programming” (Agrawal, Wang and Ye), Working Paper, November 2009.

[W10] “Competitive Communication Spectrum Economy and Equilibrium,” Working Paper, Management Science and Engineering, Stanford University, October, 2007.

[W9] “A Convex Parimutuel Formulation for Contingent Claim Markets,” (Peters, So and Ye), Working Paper, Management Science and Engineering, Stanford University, October 2005.

[W8] “Solving sparse semidefinite programs using the dual scaling algorithm with an iterative solver,” (Choi and Ye), Working Paper, Department of Management Sciences, University of Iowa, March 2000.

[W7] “Computational Optimization Laboratory Positive Semidefinite Programming User Guide,” (Benson, Ye, and Zhang), Working Paper, Department of Management Sciences, University of Iowa, February 1999.

[W6] “Convergence behavior of the central path for homogeneous and self-dual cones," Working Note, Department of Management Sciences, The University of Iowa, December, 1995.

[W5] “A low complexity combined phase I-phase II potential reduction algorithm for linear programming,” Working Paper No. 91-1, College of Business Administration, University of Iowa, 1991.

[W4] “Line search in potential reduction algorithms for linear programming,” Working Paper, College of Business Administration, University of Iowa, 1989.

[W3] “A `build-up' interior method for linear programming,” (Dantzig and Ye) SOL Report, Department of Operations Research, Stanford University, 1990.

[W2] “Bimatrix equilibrium points and potential functions,” Working Paper No. 88-16, College of Business Administration, University of Iowa, 1988.

[W1] “Further development of the interior algorithm for convex quadratic programming,” manuscript, Stanford University and Integrated Systems Inc., Stanford, 1987.

4. Ph.D. Dissertation Advisees, Courses, Software, Invited Presentations and Patents

Ph.D. Dissertation Advisees

Name	Grad Date	University	Last Known Position
John Kaliski,	1992	U of Iowa	Anlon Systems Inc., Mankato, Minnesota
Ronald Bosch	1994 (Co-DA)	U of Iowa	Harvard University, Bio-statistics, School of Public Health
Pi-Fang Huang	1995	U of Iowa	Taiwan Dong-Hai University
Erling Andersen	1996 (Visiting)	U of Denmark	Founder of MOSEK.com, Optimization Software
Tienbin Qian	1997 (Co-DA)	U of Iowa	Motorola at Arizona, Operations Management Team
Steve Benson	1999	U of Iowa	Argonne National Lab at Chicago
Jiawei Zhang	2004	Stanford	NYU
Anthony So	2007	Stanford	Chinese University of Hong Kong
Pratik Biswas	2007	Stanford	Wall Street
Mark Peters	2008	Stanford	Private start-up company
Dongdong Ge	2009	Stanford	Shanghai JiaoTong University
John Carlsson	2009	Stanford	University of Minnesota
Erick Delage	2009	Stanford	HEC Montreal
Zhishu Zhu	2010	Stanford	Oracle Inc.
Shipra Agrawal	2011	Stanford	Microsoft Research
Zizhuo Wang	2012	Stanford	University of Minnesota
Qi Qi	2012	Stanford	Hong Kong U of Science and Tech.
Nicole Taheri	2012	Stanford	IBM Research
Robert Eberhart	2013 (Co-DA)	Stanford	University of Santa Clara
Onkar Danal	2013 (Co-DA)	Stanford	
Tiago Akle	2014* (Co-DA)	Stanford	
Andy Nguyen	2014* (Co-DA)	Stanford	

Tailai Wen 2014* Stanford
* Expected

Courses listed on http://www.stanford.edu/~yyye/course.html .

Computer Software/Programs listed on http://www.stanford.edu/~yyye/Col.html .

Over 140 invited presentations

Patents through Stanford Technology License:

* A Semi-Definite Programming Method for AD HOC Network Node Localization, 2005
* Convex Parimutuel Call Auction Mechanism (S05-349), 2006

5. Professional Affiliations and Activities

Membership
* The Institute for Operations Research and the Management Sciences (INFORMS)
* Society for Industrial and Applied Mathematics (SIAM)
* Mathematical Optimization Society (MOS)

Positions
* Co-organizer of the 2011 Fields Research Institute Thematic Program on Geometry and Optimization.
* Elected Vice Chair of the SIAM Activity Group on Optimization (SIAG/OPT), 2008-.
* Co-organizer of Workshop of Internet and Network Economics, 2005-.
* Section Officer (Linear Programming) of the Institute for Operations Research and the Management Sciences, (1997-2000).
* Co-organizer of the 1999 DIMACS Princeton workshop on discrete optimization.
* Member of the International Advisory Committee for the 15th and 16th International Symposium on Mathematical Programming (1992-1997).
* Topic Coordinator for the 15th International Symposium on Mathematical Programming (1992-1994).

Special Presentations
* Plenary Tseng Lectureship speaker at the 21th International Symposium on Mathematical Programming, Berlin, 2012
* Invited Presentations, IPAM workshops on the Simplex Method, Stochastic and Robust Optimization and Continues Optimization, UCLA, October 2010 to January 2011.
* Semi-plenary speaker, The Chinese Mathematical Programming Society Annual Meeting, 2010
* Plenary speaker in Workshop on Internet and Network Economics, 2008
* Plenary speaker at the 19th International Symposium on Mathematical Programming, Rio de Janeiro, 2006
* Distinguished Speaker in High Performance Computation for Engineered Systems (HPCES), MIT, 2002.
* Semi-plenary speaker at the 17th International Symposium on Mathematical Programming, Atlanta, 2000.

Journal Boards
* Area Editor of *Math Operations Res* (2010-), *Operations Research* (2005-2010), Chief Editor of *Optimization & Engineering* (2000-) and *Pacific Journal of Optimization* (2003-).
* Associate Editor of *Management Science* (2004-2009), *Math Operations Res* (1998-2001), *Optimization Methods and Software* (2003-), *SIAM Journal on Optimization* (1990-1997), *Journal of the Operations Research Society of Japan* (1998-), *Journal of Computational Mathematics* (2004-).

Reviewers
* NSF proposal review panelist (1994, 1995, 1996, 2000, 2002, 2009, 2011).
* Referee for *Mathematics of Operations Research, Mathematical Programming, SIAM Journals, Operations Research, Linear Algebra and its Applications, and Journal of Optimization Theory and Applications*, etc.
* Reviewer for National Science Foundation; Natural Sciences and Engineering Research Council of Canada, Research Grant Council of Australia, Research Grant Council of Hong Kong, Sciences and Engineering Research Council of Chili.

6. Industrial and Consulting Activities

Chairman of the technical advisory board of MOSEK (2009-)
Director of the Industrial Affricate Program, Management Science and Engineering, Stanford (2002-)
Recipient of the 2010 and 2011 EPRI (Electric Power Research Institute) Gift
Recipient of the 2009 IBM Faculty Award
Sample of Industrial Projects and Activities:

Boeing (2004-), Stochastic and Robust Decision Making and Optimization
Boeing (2004-), Dynamic Resource Allocation
American Express (2005-2008), Game and Dynamic Decision
Huawei Technologies Co., Ltd. (China) (2005-), Supply Chain Management and Facility Location
TISCO Inc. (China) (2006-), Supply Chain and Project Management
Polaris Wireless Inc (2006-2007), Mobile Phone Localization
AtRoad, Inc. Fremont (2006-2007), Vehicle Routing
Barcelona Design Inc, (1998-2004), Analog Circuit Design
AT&T (1992-1993), Linear Programming Solver Development
MCI Telecommunication (1991-1992), Real Time Restoration for Telecommunication Network

7. Honors

Yinyu Ye

* 2012 ISMP Tseng Lectureship Prize (Inaugural Recipient) for outstanding contributions in the area of continuous optimization, consisting of original theoretical results, innovative applications, or successful software development.
* 2009 INFORMS John von Neumann Theory Prize (Co-Recipient) for fundamental sustained contributions to theory in Operations Research and the Management Sciences
* 2007 Stanford Asian American Faculty of Year Award
* 2006 INFORMS Optimization Society Farkas Prize (Inaugural Recipient) for fundamental contributions to optimization
* 2006 INFORMS Fellow
* 2003 ISI Highly Cited Mathematical Researcher (one of 250 in Mathematical Sciences for 1983-2002, http://www.ISIhighlycited.com)
* 2004 BASES Innovators' Challenge First-Place Winners: Pratik Biswas and Yinyu Ye on sensor network localization.
* 2005 BASES Innovators' Challenge First-Place Winners: Holy Jin, Mike Carter, Mike Saunders and Yinyu Ye on sensor network management.
* Research Fellow, Mathematical Science Research Institute, UC Berkeley, 1998.
* Australian Research Council Fellowship, University of New South Wales, 1997.
* Japan Education Ministry Fellowship, Institute of Statistical Mathematics, 1996.
* Dutch Organization for Scientific Research (NWO) Fellowship, Delft University, 1994-1997.
* Obermann Fellowship, University of Iowa, 1994.
* Cornell University Theory Center Fellowship, 1993-1994.
* Fellowship Award of K. C. WONG Education Foundation, Hong Kong, 1993.

Students Supervised by Yinyu Ye

* 2013 INFORMS Computing Society Prize, John Carlsson, for his best English language papers dealing with the Operations Research/Computer Science interface
* 2013 Second Prize of INFORMS Nicholson Student Paper Competition, Ian Post, for the joint paper “The simplex method is strongly polynomial for deterministic Markov decision processes.”
* 2010 INFORMS Best Interactive Session Award, John Carlsson, for his paper “Dividing a territory between several facilities.”
* 2010 INFORMS Optimization Prize for Young Researchers, Anthony Man-Cho So, for his paper “Moment inequalities for sums of random matrices and their applications to optimization.”
* 2008 First Prize of INFORMS Nicholson Student Paper Competition, E. Delage, for the joint paper “Distributionally Robust Optimization under Moment Uncertainty with Application to Data-Driven Problems”

* 2004 INFORMS Optimization Prize for Young Researchers, Jiawei Zhang, for his paper "Approximating the Two-Level Facility Location Problem via a Quasi-Greedy Approach"

8. Funded Research

* Principal Investigator (1 of 1), the Precourt Energy Efficiency Center: "A Robust Mechanism to Dynamically Provide Grid Services with a Fleet of Plug-in Electric Vehicles," 2012-2013.

* Principal Investigator (1 of 2), DOE Grant on Numerical Optimization Algorithms and Software for Systems Biology, 2009-2012.
* Principal Investigator (1 of 3), Air Force Grant on Optimization Algorithms and Equilibrium Analysis for Dynamic Resource Allocation, 2009-2012.
* Principal Investigator, NSF GOALI on Region Partitioning, 2008-2011.
* Principal Investigator, NSF Grant on Complexity of Market Equilibrium, 2006-2010.
* Principal Investigator, NSF Grant for Markov Decision Problem and Linear Programming, 2003-2006.
* Principal Investigator, NSF Grant for Semidefinite Programming and Approximation Algorithms, 1999-2003.
* Principal Organizer (1 of 2), Semidefinite Programming and Large-Scale Discrete Optimization Workshop, DIMACS and Princeton University, 1999.
* Co-Principal Investigator (1 of 5), NSF Grant for Computational Infrastructure and Equipment, 1998-1999.
* Co-Principal Investigator (1 of 4), NSF Grant for Hybrid Optimization for Protein Structure, 1998-1999.
* Co-Principal Investigator (1 of 4), University of Iowa Biosciences Initiative Pilot Grant, 1998.
* Principal Investigator, NSF Grant for computational complexity, 1997-2000.
* Principal Investigator, NSF Grant for mathematical programming, 1995-1998.
* Principal Investigator, NSF Grant for linear programming interior-point algorithms, 1993-1995.
* Principal Investigator, NSF Grant for linear programming, 1990-1992.
* Principal Investigator, College Summer Grants, College of Business of Administration, University of Iowa, 1989-1997.
* Principal Investigator (1 of 2), Center for Advanced Studies Interdisciplinary Research Grant, University of Iowa, 1991-1992.