

References

- ١) عبدالرحمن أبوعمة ومحمد العث، البرمجة الخطية، جامعة الملك سعود ١٩٩٠م.
- ٢) زيد البلخي، مقدمة في بحوث العمليات، جامعة الملك سعود ١٩٩٨م.
- ٣) سليمان الحميدان، عمر حامد وحسن حميدة، الأسس الرياضية للبرمجة الخطية، جامعة الملك سعود ٢٠٠٢م.
- ٤) أحمد رضوان وعبدالرحمن أبوعمة، تقنيات الأمثلية في البرمجة الخطية، جامعة الملك سعود ٢٠٠١م.
- ٥) محمد الصفدي، البرمجة الخطية وبحوث العمليات، وكالة المطبوعات ١٩٨٠م.

- [AW] S. Al-Homidan and H. Wolkowicz, Approximate and Exact Completion Problems for Euclidean Distance Matrices using Semidefinite Programming, *Linear Algebra and its Applications*, Vol.406 (2005) pp. 109-141.
- [AF] S. Al-Homidan and R. Fletcher, Rationalizing Foot and Ankle Measurements to Conform to a Rigid Body Model, *Computer Methods in Biomechanics and Biomedical*, Vol. 9, No. 2, 2006. pp. 103-111.
- [Alh] S. Al-Homidan, Approximate Toeplitz problem using semidefinite programming, *Journal of Optimization Theory and Applications*, Vol. 135, pp. 583-598, 2007.
- [Ali1] F. Alizadeh. *Combinatorial optimization with interior point methods and semidefinite matrices*. PhD thesis, University of Minnesota, Minneapolis, USA, 1991.
- [Ali2] F. Alizadeh. Interior point methods in semidefinite programming with applications to combinatorial optimization. *SIAM Journal on Optimization*, 5:13-51, 1995.

- [AHO] F. Alizadeh, J.-P.A. Haeberley, and M.L. Overton. Primal-dual methods for semidefinite programming: convergence rates, stability and numerical results. *SIAM Journal on Optimization*, 8(3):746-768, 1998.
- [AA] E.D. Andersen and K.D. Andersen. The MOSEK interior point optimizer for linear programming: an implementation of the homogeneous algorithm. In H. Frenk, K. Roos, T. Terlaky, and S. Zhang, editors, *High performance optimization*, pages 197-232. Kluwer Academic Publishers, 2000.
- [AF] K.M. Anstreicher and M. Fampa. A long-step path following algorithm for semidefinite programming problems. In P.M. Pardalos and H. Wolkowicz, editors, *Topics in Semidefinite and Interior-Point Methods*, volume 18 of *Fields Institute Communications Series*, pages 181-196. American Mathematical Society, 1998.
- [BW] V. Balakrishnan and F. Wang. Sdp in systems and control theory. In H. Wolkowicz, R. Saigal, and L. Vandenberghe, editors, *Handbook of semidefinite programming*, pages 421-442. Kluwer Academic Publishers, Norwell, MA, 2000.
- [BGN] A. Ben-Tal, L. El Ghaoui, and A.S. Nemirovski. Robustness. In H. Wolkowicz, R. Saigal, and L. Vandenberghe, editors, *Handbook of semidefinite programming*, pages 139-162. Kluwer Academic Publishers, Norwell, MA 2000.
- [BN] A. Ben-Tal and A.S. Nemirovski. Structural design. In H. Wolkowicz, R. Saigal, and L. Vandenberghe, editors, *Handbook of semidefinite programming*, pages 443-467. Kluwer Academic Publishers, Norwell, MA 2000.
- [BGFB] S.E. Boyd, L. El Ghaoui, E. Feron, and V. Balakrishnan. *Linear matrix inequalities in system and control theory*. SIAM Studies in Applied Mathematics, Vol. 15, SIAM, Philadelphia, USA, 1994.
- [DK] E. de Klerk. Aspects of semidefinite programming, Kluwer Academic Publishers, 2002.
- [DPRT] E. de Klerk, J. Peng, C. Roos, and T. Terlaky. A scaled Gauss-Newton primal-dual search direction for semidefinite optimization. *SIAM Journal on Optimization*, 11:870-888, 2001.
- [DRT] E. de Klerk, C. Roos, and T. Terlaky. Initialization in semidefinite programming via a self-dual, skew-symmetric embedding. *OR Letters*, 20:213-221, 1997.
- [Di] J. Dieudonné'. *Foundations of Modern Analysis*. Academic Press, New York, 1960.

- [Fa] L. Faybusovich. Semi-definite programming: a path-following algorithm for a linear-quadratic functional. *SIAM Journal on Optimization*, 6(4):1007-1024, 1996.
- [Go] M.X. Goemans. Semidefinite programming in combinatorial optimization. *Math Programming*, 79(1-3, Ser. B):143-161, 1997. Lectures on mathematical programming (ismp97).
- [GW] M.X. Goemans and D.P. Williamson. Improved approximation algorithms for maximum cut and satisfiability problems using semidefinite programming. *Journal of the ACM*, 42(6):1115-1145, 1995.
- [GT] A. Goldman and A.W. Tucker. Theory of linear programming. In H.W. Kuhn and A.W. Tucker, editors, *Linear inequalities and related systems*, *Annals of Mathematical Studies*, No. 38, pages 53-97. Princeton University Press, Princeton, New Jersey, 1956.
- [Go] C.C. Gonzaga. Path following methods for linear programming. *SIAM Review*, 34:167-227, 1992.
- [HDRT] B. He, E. der Klerk, C. Roos, and T. Terlaky. Method of approximate centers for semi-definite programming. *Optimization Methods and Software*, 7:291-309, 1997.
- [HRVW] C. Helmberg, F. Rendl, R.J. Vanderbei, and H. Wolkowicz. An interior-point method for semidefinite programming. *SIAM Journal on Optimization*, 6:342-361, 1996.
- [HJ] R.A. Horn and C.R. Johnson. *Matrix Analysis*. Cambridge University Press, 1985.
- [JRT] B. Jansen, C. Roos, and T. Terlaky. Interior point method: a decade after Karmarkar. A survey, with application to the smallest eigenvalue problem. *Statistica Neerlandica*, 50, 1995.
- [Ji] J. Jiang. A long step primal-dual path following method for semidefinite programming. *OR Letters*, 23(1,2):53-62, 1998.
- [Ka] N.K. Karmarkar. A new polynomial-time algorithm for linear programming. *Combinatorica*, 4:373-395, 1984.
- [Kh] L. Khachiyan. A polynomial-time algorithm for linear programming. *Soviet Mathematics Doklady*, 20:191-194, 1979.

- [KSS] M. Kojima, M. Shida, and S. Shindoh. Local Convergence of Predictor-Corrector Infeasible-Interior-Point Algorithms for SDP's and SDLCP's. *Mathematical Programming*, 80:129-160, 1998.
- [KSH] M. Kojima, S. Shindoh, and S. Hara. Interior point methods for the monotone semidefinite linear complementarity problem in symmetric matrices. *SIAM Journal on Optimization*, 7(1):88-125, 1997.
- [KMRVW] S. Kruk, M. Muramatsu, F. Rendl, R.J. Vanderbei, and H. Wolkowicz. The Gauss-Newton direction in linear semidefinite programming. *Optimization Methods and Software*, 15(1):1-27, 2001.
- [LO] A.S. Lewis, and M.L. Overton. Eigenvalue optimization. *Acta Numerica*, 5:149-190, 1996.
- [LSZ] Z.-Q. Luo, J.F. Sturm, and S. Zhang. Conic convex programming and self-dual embedding. *Optimization Methods and Software*, 14(3):196-218, 2000.
- [LMS] I.J. Lustig, R.E. Marsten, and D.F. Shanno. Interior point methods: Computational state of the art. *ORSA Journal on Computing*, 6:1-15, 1994.
- [MTY] S. Mizuno, M.J. Todd, and Y. Ye. On adaptive step primal-dual interior-point algorithms for linear programming. *Mathematics of Operations Research*, 18:964-981, 1993.
- [Mo] R.D.C. Monteiro. Primal-dual path-following algorithms for semidefinite programming. *SIAM Journal on Optimization*, 7(3):663-678, 1997.
- [NN] Yu. Nesterov and A.S. Nemirovski. *Interior point polynomial algorithms in convex programming*. SIAM Studies in Applied Mathematics, Vol. 13, SIAM, Philadelphia, USA, 1994.
- [NT] Yu. Nesterov and M.J. Todd. Self-scaled barriers and interior-point methods for convex programming. *Mathematics of Operations Research*, 22(1):1-42, 1997.
- [OI] J.A. Olkin. Using semi-definite programming for controller design in active noise control. *SIAG/OPT Views and News*, 8:1-5, Fall 1996.
- [Pa] P.A. Parillo. *Structured Semidefinite Programs and Semi-algebraic Geometry Methods in Robustness and Optimization*. PhD thesis, California Institute of Technology, Pasadena, California, USA, 2000. Available at <http://www.cds.caltech.edu/~pablo/>.

- [Po] G. Pólya. Über positive Darstellung von Polynomen. *Vierteljschr. Naturforsch. Ges. Zürich*, 73:141-145, 1928. (also Collected Papers, Vol. 2, 309-313, MIT Press, Cambridge, Mass., London 1974).
- [PS] F.A. Potra and R. Sheng. A superlinearly convergent primal-dual infeasible-interior-point algorithm for semidefinite programming, *SIAM Journal on Optimization*, 8(4):1007-1028, 1998.
- [RP] M.V. Ramana and P.M. Pardalos. Semidefinite programming. In T. Terlaky, editor, *Interior point methods of mathematical programming*, pages 369-398. Kluwer, Dordrecht, The Netherlands, 1996.
- [RTV] C. Roos, T. Terlaky, and J.-Ph. Vial. *Theory and Algorithms for Linear Optimization: An interior point approach*. John Wiley & Sons, New York, 1997.
- [SSK] M. Shida, S. Shindoh, and M. Kojima. Existence of search directions in interior-point algorithms for the SDP and the monotone SDLCP. *SIAM Journal on Optimization*, 8(2):387-396, 1998.
- [St] J.F. Sturm. Using seDuMi 1.02, a MATLAB toolbox for optimization over symmetric cones. *Optimization Methods and Software*, 11-12:625-653, 1999.
- [TTT] K.C. Toh, M.J. Todd, and R.H. Tütüncü. SDPT3 -- a Matlab software package for semidefinite programming. *Optimization Methods and Software*, 11:545-581, 1999.
- [Va] R.J. Vanderbei. *Linear Programming*, Kluwer's International Series, 2001.
- [VB] L. Vandenberghe and S. Boyd. Semidefinite programming. *SIAM Review*, 38:49-95, 1996.
- [WSV] H. Wolkowicz, R. Saigal, and L. Vandenberghe, editors, *Handbook of semidefinite programming*, Kluwer Academic Publishers, Norwell, MA, 2000.
- [Wr] S. Wright. *Primal-Dual Interior Point Methods*, SIAM, Philadelphia, USA, 1996.
- [XHY] X. Xu, P.-F. Hung, and Y. Ye. A simplified homogeneous and self-dual linear programming algorithm and its implementation. *Annals of OR*, 62:151-171, 1996.
- [Ye] Y. Ye. *Interior point algorithm*. Discrete Mathematics and Optimization. Wiley-Interscience, New York, 1997.

- [YTM] Y. Ye, M.J. Todd and S. Mizuno. An $O(\sqrt{n}L)$ -iteration homogeneous and self-dual linear programming algorithm. *Mathematics of Operations Research*, 19:53-67, 1994.
- [Zh] Y. Zhang. On extending some primal-dual interior point algorithms from linear programming to semidefinite programming. *SIAM Journal on Optimization*, 8(2):365-386, 1998.