Publications of Tamás Terlaky

1 Books


2 Lecture Notes


3 Edited Books, Volumes


4 Edited Special Issues


5 Contributions to Books


15. Least index anti-cycling rules.


17. Criss-Cross pivoting rules.

18. Lexicographic pivoting rules.

19. Interior-point methods.


   The book was awarded honorable mention by the Associate of American Publishers’ (AAP) in the category “Outstanding Professional and Scholarly Titles of 2002 in Computer Science”.


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6 Publications in Refereed Journals

Publications in English


120. The continuous d-step conjecture for polytopes. To appear in *Discrete and Computational Geometry*. (Joint work with A. Deza and Y. Zinchenko.)

**Publications in Spanish**

Publications in Hungarian


17. Interior Point Methods with Self-Regular Distance Functions (2005). *Alkalmazott Matematikai Lapok* 22. 177–198. (Joint work with I. Pólik)


Remark:
*Alkalmazott Matematikai Lapok* is a Hungarian journal of applied mathematics.
*Szigma* is a Hungarian journal of econometrics.

7 Thesis


8 Publications in Proceedings


9 Publications in Professional Newspapers

Publications in Dutch

1. LP-Software survey (1995) ITW Nieuws 5. 3. 22–24. (Joint work with A. Quist)
2. NLP-Software survey (1996) ITW Nieuws 6. 4. 20–23. (Joint work with A. Quist)

Publications in English


10 Reports


    Preprint, Department of Operations Research, Eötvös University Budapest, Hungary.


    The Institute of Statistical Mathematics Cooperative Research Report, Optimization, Japan.
Report 2.2.1 and Technical Annex T-2.2.1 A, EUCLID RTP6.4, Combinatorial Algorithms for Military Applications Delft University of Technology, Department of Technical Mathematics and Informatics, The Netherlands.


Report 2.3.2a, and Technical Annex T-2.3.2a A, EUCLID RTP6.4, Combinatorial Algorithms for Military Applications Delft University of Technology, Department of Technical Mathematics and Informatics, The Netherlands.


Revised version in 1999, new coauthor E.D. Andersen.


55. A new class of large neighborhood path-following interior point algorithms for semidefinite optimization with \( O(\sqrt{\log \frac{\text{Tr}(X^0S^0)}{\epsilon}}) \) iteration complexity. AdvOL-report #2008 /5. McMaster U. Hamilton, Ontario, Canada. (Joint work with Y. Li)


Book Reviews, Editorials


11 Computer Aided Teaching

- COLPO, computerized teaching of linear programming modeling.

12 Optimization Software Packages

Talks Given by Invitation in 2008


Talks Given by Invitation in 2007


13. **Polytopes and arrangements: diameter and curvature.** University of Calgary, PIMS Distinguished Lecturer, October 26 2007.


15. **Pivot v/s interior point methods: pros and cons.** University of Calgary, PIMS Distinguished Lecturer, October 24 2007.

16. **Interior Point Methods for Conic Linear Optimization: SDO and SOCO.** Chinese Academy of Sciences, Beijing, China, 14 September, 2007.

17. **Edge Path and Central Path: Diameter and Curvature.** International Conference on Numerical Linear Algebra and Optimization, Urumqi, China, 8-12 September, 2007.


**Talks Given by Invitation in 2006**


5. *Linear Optimization – Twenty Years of Interior Point Methods – What is Next?* Faculty of C.S., University of New Brunswick, NB, 5 October, 2006. **IVS/NVision Lecture.**


7. *Tutorial on Interior Point Methods.* EURO Summer Institute. Wittenberg, Germany, August 20– September 2, 2006. **Short course.**


**Talks Given by Invitation in 2005**


8. How good (how bad) are Simplex and Interior Point Methods? – What next?. Data Mining Institute of the Chinese Academy of Sciences, Beijing, China, August 6, 2005.

9. Recent Advances in Interior Point Methods, Tsinghua University, Beijing, China, August 5, 2005.


15. Recent Advances in Convex Optimization, University of Toronto, ON. February 18, 2005.

Talks Given by Invitation in 2004

1. The CaNEOS server for Optimization, February 18, 2004, General Motors Technological Center, Detroit, MI.

2. Interior Point Methods, February 18, 2004, General Motors Technological Center, Detroit, MI.


15. The central path visits all the vertices of the Klee-Minty cube Guelph University, November 18, 2004.


**Talks Given by Invitation in 2003**

2. *Advances in Interior Point Methods: Self-Regular IPMs and Their Relatives* XXVI-Ith Spanish Conference on Statistics and Operational Research, April 8-12, 2003, Lleida, Spain. **Semiplenary talk, featured speaker.**


5. *Predictor-Corrector Self-Regular Interior Point Methods*, Optimization Days, May 4-6, 2003, Montèal, QC, Canada. **Semiplenary talk, featured speaker.**


12. *Adaptive Self-Regular Primal-Dual IPMs*, Georgia Institute of Technology, October 23, 2003, Atlanta, GA.


**Talks Given by Invitation in 2002**

1. *Dynamical IPMs and Computational experiments with the new IPMs* IBM T.J. Watson Research Center, January 29, 2002.


10. *Self-Regular IPMs.* Graz University, Graz, Austria, August 19, 2002.


15. *Computational Experiments with IPMs based on Self-Regular Functions* INFORMS National Meeting, San Jose, California, November 3-6, 2002.


Talks Given by Invitation in 2001


**Talks Given by Invitation in 2000**


3. *Almost $O(\sqrt{n} \log \frac{n}{\epsilon})$ Large-Update Interior Point Methods.* INFORMS, Salt Lake City, May 7-10, 2000.


5. *Almost $O(\sqrt{n} \log \frac{n}{\epsilon})$ Large-Update Interior Point Methods.* EURO-XVII, Budapest, July 16-20, 2000.


10. *Improved complexity large-update IPMs.* Fist Sino-Japanese Conference on Optimization, October 2000, Hong Kong.

Talks Given by Invitation in 1999


Talks Given by Invitations in 1998


22. Short admissible pivot sequences do exists for LP, but not for OM-LP. Fudan University, Shanghai, China, 22 December, 1998.

Complete List of Talks Given in 1997


Complete List of Talks Given in 1996

1. Introduction to IPMs for Linear Programming. The University of Alicante, January 26, 1996.


13. Potential reduction algorithms for structured combinatorial optimization problems. INFORMS annual meeting Atlanta, 5 November, 1996.


Complete List of Talks Given in 1995


3. Interior Point Methods and its Applications, University of Zürich, Zürich, Switzerland, May 22.

4. Complementarity Problems and Interior Point Methods, Zürich University of Technology, Zürich, Switzerland, May 23.


8. Target Following: A Unifying View at Interior Point Methods, SOR-95, Passau Germany, September 5–9.

9. Unifying View of Interior Point Methods, Universiteit Twente, Enschede, September 25.

10. Optimal Basis Identification and Balinski-Tucker Tableaus in Quadratic programming and Linear Complementarity Problems, CORE, Louvain-la-Neuve, December 19.

Complete List of Talks Given in 1994


2. Pivot Rules, Recursions for Linear Programming, University of Padova, Department of Mathematics, Padova, Italy, April 26.
3. *Oriented Matroids: An Abstraction of Linear Programming*, University of Padova, Department of Mathematics, Padova, Italy, April 27.

4. *Linear Programming and Linear Complementarity on Oriented Matroids*, University of Padova, Department of Mathematics, Padova, Italy, April 28.


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\(^1\)No details are given about the talks in the years 1980-1993.