

Kurt Mehlhorn

Books, Systems, Publications

January 9, 2012

Books

- [1] K. Mehlhorn and P. Sanders. *Algorithms and Data Structures: The Basic Toolbox*. Springer, 2008. Translations into Japanese, German, and Greek.
- [2] K. Mehlhorn and S. Näher. *The LEDA Platform for Combinatorial and Geometric Computing*. Cambridge University Press, 1999.
- [3] J. Loeckx, K. Mehlhorn, and R. Wilhelm. *Foundations of Programming Languages*. Wiley, 1989. 426 pages.
- [4] J. Loeckx, K. Mehlhorn, and R. Wilhelm. *Grundlagen der Programmiersprachen*. Teubner, 1986. 440 pages.
- [5] K. Mehlhorn. *Datenstrukturen und Effiziente Algorithmen: Sortieren und Suchen*. Teubner, 1986. 314 pages.
- [6] K. Mehlhorn. *Data Structures and Efficient Algorithms, Volume 1: Sorting and Searching*. Springer, 1984. 336 pages.
- [7] K. Mehlhorn. *Data Structures and Efficient Algorithms, Volume 2: Graph Algorithms and NP-Completeness*. Springer, 1984. 260 pages.
- [8] K. Mehlhorn. *Data Structures and Efficient Algorithms, Volume 3: Multi-dimensional Searching and Computational Geometry*. Springer, 1984. 284 pages.
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Systems

- [1] LEDA (Library of Efficient Data Types and Algorithms). www.algorithmic-solutions.com, the system is in use at several thousand academic and industrial sites.
- [2] CGAL (Computational Geometry Algorithms Library). www.cgal.org, the system is developed by a European consortium; it is in use at several hundred sites world-wide.

- [3] EXACUS (EXAct computation with CURves and Surfaces). www.mpi-sb.mpg.de/projects/EXACUS, a testbed for algorithms in non-linear computational geometry.
- [4] SCIL (Symbolic Constraints for Integer Linear programming). www.mpi-sb.mpg.de/SCIL/.
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- [6] T. Lengauer and K. Mehlhorn. The HILL System: A Design Environment for the Hierarchical Spezification, Compaction, and Simulation of Integrated Circuit Layouts. In Paul Penfield Jr., editor, *Proceedings of the MIT VLSI Conference*, pages 139–149. Artech House, Inc., 1984.

Journals and Conferences

Conference publications are only listed for papers that have not appeared in polished form in journals. All papers are available at the author’s home page.

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- [219] Madhusudan Manjunath, Kurt Mehlhorn, Konstantinos Panagiotou, and He Sun. Approximate Counting of Cycles in Streams. In *ESA 2011*, volume 6942 of *LNCS*, pages 677–688, 2011.
- [218] Vincenzo Bonifaci, Kurt Mehlhorn, and Girish Varma. Physarum can compute shortest paths. to appear in *SODA 2012*, <http://arxiv.org/abs/1106.0423>, June 2011.
- [217] Nicole Megow, Kurt Mehlhorn, and Pascal Schweitzer. Online Graph Exploration: New Results on Old and New Algorithms. In *ICALP 2011*, volume 6756 of *LNCS*, pages 478–489, 2011.
- [216] E. Alkassar, S. Böhme, K. Mehlhorn, and Ch. Rizkallah. Verification of Certifying Computations. In *Computer Aided Verification (CAV)*, volume 6806 of *LNCS*, pages 67–82, 2011.
- [215] G. Christodoulou, K. Mehlhorn, and E. Pyrga. Improving the Price of Anarchy for Selfish Routing via Coordination Mechanisms. a preliminary version of this paper appeared in *ESA 2011*, *LNCS* Vol. 6942, pages 119 – 130.
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- [213] N. Shervashidze, P. Schweitzer, E.J. van Leeuwen, K. Mehlhorn, and K.M. Borgwardt. Weisfeiler-Lehman Graph Kernels. to appear in *Journal of Machine Learning Research*, 2010.
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- [209] K. Mehlhorn, R. Osbild, and M. Sagraloff. A General Approach to the Analysis of Controlled Perturbation Algorithms. *Computational Geometry*, 44(9):507–528, 2011.
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