

Curriculum Vitae

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Personal Data

Date of birth: June 10, 1965. Citizenship: Germany.

Education

October 1984 – May 1990: Studies in Mathematics, University of Osnabrück. Degree: M.Sc. (Diplom-Mathematiker).

October 1990 – June 1993: Doctoral candidate in Computer Science, Saarland University, Saarbrücken, and Max Planck Institute for Computer Science, Saarbrücken. Degree: Ph.D. (Dr. rer. nat.), graduated *summa cum laude*. Thesis title: On the Influence of Lookahead in Competitive On-Line Algorithms. Completed June 1993. Thesis advisor: Prof. Dr. Kurt Mehlhorn.

Venia Legendi

Venia legendi (Habilitation) in computer science, Saarland University, February 1999.

Academic Positions

June 2009 – present: Full professor in the Department of Computer Science at the Humboldt University Berlin, Germany.

August 2001 – May 2009: Full professor in the Department of Computer Science at the University of Freiburg, Germany.

October 1999 – July 2001: Associate professor in the Department of Computer Science at the University of Dortmund, Germany.

June 1993 – September 1999: Research associate at the Max Planck Institute for Computer Science, Saarbrücken, Germany.

October 1998 – March 1999: Visiting professor in the Department of Mathematics and Computer Science at the University of Paderborn, Germany.

April 1998 – September 1998: Visiting professor in the Department of Mathematics and Computer Science at the Free University of Berlin, Germany.

September 1994 – August 1995: Postdoctoral position at the International Computer Science Institute, Berkeley, California.

Fellowships

October 1990 – June 1993: Graduate fellowship of the German Research Foundation. Member of the Research Training Center in Computer Science, Saarland University.

Awards

Gottfried Wilhelm Leibniz Prize, 2008. The prize represents the highest honour awarded in German research.

Otto Hahn Medal Award of the Max Planck Society, 1993. Prize is awarded for outstanding research presented in a dissertation.

Short-Term Positions and Visits Abroad

September – December 2006: Visiting professor in the School of Computer Science, Carnegie Mellon University, Pittsburgh, USA. Member of the ALADDIN Center.

August/September 1996: Visitor at BRICS, Århus University. Invited by Prof. Dr. Erik Schmid.

August 1996 and January 1998: Visitor at the Systems Research Center, Digital Equipment Corporation (DEC SRC), Palo Alto, USA. Invited by Prof. Dr. Monika R. Henzinger and Prof. Dr. Michael Mitzenmacher.

June 1995: Visitor in the Department of Computer Science, Cornell University, Ithaca, New York. Invited by Prof. Dr. Monika R. Henzinger.

August – September 1993: Visiting scientist in the Department of Information Sciences, The University of Tokyo, Japan. Invited and supported by Prof. Dr. Hiroshi Imai.

June – September 1988: Co-op position (Werkstudent) with Siemens Corporate Research in Princeton NJ, USA.

Journal Editorial Boards

Editor-in-Chief *ACM Transactions on Algorithms* (since July 2008).

Member of the editorial boards of

Algorithmica (since 2001),

Journal of Discrete Algorithms (since 1998),

Journal of Graph Algorithms and Applications (since 2005),

Journal of Interconnection Networks (since 2003),

Information Processing Letters (2000 – 2004, I resigned to take up other responsibilities).

Book Editorial Boards

Member of the editorial board of the *Encyclopedia of Algorithms*, Springer Verlag, 2007. The encyclopedia provides a comprehensive set of solutions to important algorithmic problems developed within the recent decades.

Refereeing and Reviewing

Conferences: Program committee chair or co-chair of the following conferences:

36th International Colloquium on Automata, Languages and Programming (ICALP), 2009.

26th International Symp. on Theoretical Aspects of Computer Science (STACS), 2009.
25th International Symp. on Theoretical Aspects of Computer Science (STACS), 2008, co-chairing with Pascal Weil.
12th Annual European Symp. on Algorithms (ESA), Bergen, Norway, 2004.

Program committee member of the following conferences:

41st ACM Symp. on Theory of Computing (STOC), 2009.
11th Workshop on Algorithm Engineering and Experiments (ALENEX), New York, 2009.
20th ACM Symp. on Parallelism in Algorithms and Architectures (SPAA), Munich, Germany, 2008.
23rd IEEE International Parallel and Distributed Processing Symp. (IPDPS), Miami, USA, 2008.
34th International Colloquium on Automata, Languages and Programming (ICALP), Wroclaw, Poland, July 2007.
6th Workshop on Experimental Algorithms (WEA), Rome, Italy, 2007.
8th Workshop on Models and Algorithms for Planning and Scheduling Problems (MAPSP), Istanbul, Turkey, 2007.
International Symp. on Combinatorics, Algorithms, Probabilistic and Experimental Methodologies, Hangzhou, China, 2007.
26th Conf. on Foundations of Software Technology and Theoretical Computer Science (FST-TCS), Kolkata, India, December 2006.
17th ACM Symp. on Parallelism in Algorithms and Architectures (SPAA), Las Vegas, 2005.
14th Annual ACM-SIAM Symp. on Discrete Algorithms (SODA), New Orleans, USA, 2004.
13th Annual International Symp. on Algorithms and Computation (ISAAC), Kyoto, Japan, 2003.
8th Workshop on Algorithms and Data Structures (WADS), Ottawa, Canada, 2003.
1st Workshop on Approximation and Online Algorithms (WAOA), Budapest, Hungary, 2003.
10th Annual European Symp. on Algorithms (ESA), Rome, 2002.
14th ACM Symp. on Parallelism in Algorithms and Architectures (SPAA), Winnipeg, 2002.
42nd Annual IEEE Symp. on Foundations of Computer Science (FOCS), Las Vegas, 2001.
40th Annual IEEE Symp. on Foundations of Computer Science (FOCS), New York City, 1999.
16th International Symp. on Theoretical Aspects of Computer Science (STACS), Trier, Germany, 1999.
25th International Colloquium on Automata, Languages and Programming (ICALP), Ålborg, Denmark, 1998.
Workshop on On-Line Algorithms, Udine, Italy, 1998.
3rd Workshop on Randomized Parallel Computing (WRPC), Orlando, USA, 1998; satellite

workshop of the *International Parallel Processing Symposium (IPPS)*.

5th Scandinavian Workshop on Algorithm Theory (SWAT), Reykjavic, Iceland, 1996.

Public research funding agencies: reviewer for the German Research Foundation, Swiss National Science Foundation, Swedish Research Council, University Grants Committee Hong Kong, US-Israel Binational Science Foundation.

Books: Request by Cambridge University Press to review selected chapters of a book on *Online Computation and Competitive Analysis*, written by Allan Borodin and Ran El-Yaniv. Service was in 1996.

Journals: ACTA Informatica, Algorithmica, Computing, Discrete Applied Mathematics, Information Processing Letters, Journal of Algorithms, Journal of Graph Theory, Journal of the ACM, Journal of Parallel and Distributed Computing, Nordic Journal of Computing, Operations Research Letters, SIAM Journal on Computing, The Computer Journal, Theoretical Computer Science, Theory of Computing Systems.

Conferences and Workshops Organized

26th International Symposium on Theoretical Aspects of Computer Science (STACS), Freiburg, February 2009.

Annual meeting of the German Research Foundation priority programme “Algorithmics of large and complex networks”, Freiburg, July 4–6, 2007.

Dagstuhl seminar on *Optimization with Incomplete Information*.

January 2005, jointly with Rolf Möhring (Berlin), Georg Pflug (Vienna) and Rüdiger Schultz (Duisburg-Essen).

Dagstuhl seminar on *Data Structures*.

February 2004, jointly with Robert Sedgewick (Princeton) and Dorothea Wagner (Karlsruhe).

February 2002, jointly with Robert Sedgewick (Princeton) and Peter Widmayer (Zurich).

February 2000, jointly with Ian Munro (Waterloo) and Peter Widmayer (Zurich).

Dagstuhl seminar on *Online Algorithms*.

July 2002, jointly with Gerhard Woeginger (Twente and Eindhoven) and Amos Fiat (Tel-Aviv).

Oberwolfach seminar on *Efficient Algorithms*.

August 2003, jointly with Torben Hagerup (Augsburg), Kurt Mehlhorn (Saarbrücken) and David Williamson (San Jose, USA).

August 2000, jointly with Torben Hagerup (Augsburg), Guiseppe Italiano (Rome) und Kurt Mehlhorn (Saarbrücken).

Professional Activities

International

Steering committee chair of the conference *European Symposium on Algorithms (ESA)*, September 2004 – October 2007 (regular steering committee member since September 2003).

Steering committee member of the conferences: *International Workshop on Approximation Al-*

gorithms for Combinatorial Optimization (APPROX), since August 2002; *International Symposium on Theoretical Aspects of Computer Science (STACS)*, since February 2001.

National

Member of the Review Board for Computer Science, German Research Foundation, 2008–2011.
Member of the Scientific Directorate, Schloss Dagstuhl, Leibniz Center for Informatics, 2008–2010.

Member of the Senate and Grants Committee for Research Training Centers, German Science Foundation, November 2000 – October 2006.

Spokesperson of the GI Study Group 0.1.1 on “Algorithms and Data Structures” (German Association of Computer Science), November 2000 – June 2006.

Member of the Chemical-Physical-Technical Section of the Scientific Council of the Max Planck Society, June 1998 – September 1999.

University internal

Chair of the Department of Computer Science, University of Freiburg, October 2004 – September 2006.

Member of the Faculty Council for Applied Sciences, University of Freiburg, since June 2002.

Co-chair of the Council for Examination Affairs, Department of Computer Science, University of Freiburg, June 2002 – September 2004.

Women’s representative, Faculty of Applied Sciences, University of Freiburg, April 2002 – September 2004.

Member of the convent, University of Dortmund, January – April 2000.

Keynote Addresses

Invited talks at conferences and workshops:

Workshop on Scheduling, EU-Project AEOLUS, Nizza, March 2007.

Workshop on Models and Algorithms for Planning and Scheduling Problems (MAPSP), Siena, June 2005.

Workshop on New Horizons in Computing, Kyoto, February/March 2005.

18th International Symposium on Mathematical Programming (ISMP03), Copenhagen, August 2003.

9th Annual European Symposium on Algorithms (ESA01), Århus, Denmark, September 2001.

25th International Workshop on Graph-Theoretic Concepts in Computer Science (WG99), Ascona, Switzerland, June 1999.

Workshop on On-Line Algorithms. Udine, Italy, September 1998.

Workshop on Probabilistic Algorithms and Algorithmic Probability, Utrecht University, Netherlands, May 1996.

Mini-course on *Online-Scheduling*:

“French Spring School in Theoretical Computer Science (EPIT 2007)” with emphasis on scheduling algorithms, Fréjus, France, 2007.

Mini-courses on *Online Algorithms*:

“DYNAMO 2008, 2nd Training School on Algorithmic Aspects of Dynamic Networks”, Iceland, 2008.

“20th Lipari International School for Computer Science”, Italy, 2008.

“Fall School on Algorithms for Hard Problems”, Schwarzenberg, Switzerland, September 2002.

“Advanced Course on the Foundations of Computer Science”, Max Planck Institute for Computer Science, Saarbrücken, September 2000.

Summer school on “Probabilistische Methoden und Algorithmen”, Kiel, Germany, June 1999.

Course held at BRICS, Århus University, Denmark, August 1996.

More than 85 presentations given as conference talks, colloquia or invited seminar talks.

Research Grants

Algorithm Engineering for Networking Problems. Project funded by the German Research Foundation, project number Al 464/5-1. The German Research Foundation funds one research associate, one research assistant and scientific travel for a period of two years.

Efficient Algorithms for Resource Management Problems in Large Networks. Project funded by the German Research Foundation, project number Al 464/4-1 and 4-2. The German Research Foundation funds one research associate, one research assistant and scientific travel for a period of four years.

Communication in Embedded Microsystems. Project within the Research Training Center “Embedded Microsystems” at the University of Freiburg, funded by the German Research Foundation since April 2005. Funds of the Research Training Center include support for 19 PhD students, scientific travel and guests for a period of nine years.

Competitive Mechanism Design and the Price of Anarchy in Networks. Project funded by the German Israeli Foundation for Scientific Research and Development (GIF) from January 2005 to December 2007. Project partners were Prof. Yossi Azar and Prof. Amos Fiat, Tel Aviv University, Israel. Funds included support for three PhD students, one working in my group, and scientific travel.

Efficient Algorithms for Caching Problems of Current Interest. Project funded by the German Research Foundation, project number Al 464/3-1 and 3-2. The German Research Foundation supported one research associate, one research assistant and scientific travel for a period of three years.

Approximation and Online Algorithms, APPOL and APPOL II. Projects funded by the European Commission from March 2000 to October 2004. Project partners included University of Kiel (Germany), Technical University of Berlin (Germany), University of Freiburg (Germany), University of Evry (France), University of Paris (France), Technical University of Athens (Greece), University of Rome (Italy), University of Szeged (Hungary), Maastricht University (Netherlands), Technion (Israel), University of Tel-Aviv (Israel), ETH Zurich (Switzerland). The European Commission funded scientific travel and workshops.

Efficient Algorithms for Exploration Problems in Robotics. Project funded by the German Research Foundation, project number Al 464/1-1. The German Research Foundation supported scientific travel between the Max Planck Institute for Computer Science and DEC SRC, Palo Alto.

Research Interests

Efficient algorithms and data structures, complexity

Emphasis on online and approximation algorithms

Networks and parallel systems

Mathematical analyses of algorithmic problems arising in large networks

Game-theoretic aspects of networks

Energy-efficient algorithms

Design and analysis of algorithms for problems arising in embedded systems, portable devices or sensor networks; the goal is to reduce the energy consumption

Algorithm engineering

Experimental studies of algorithms; results and insights are integrated again into the algorithm design process

List of Publications

Book Chapters

- [1] S. Albers and J. Westbrook. Self-organizing data structures. In *Online-Algorithms: The State of the Art*, edited by A. Fiat and G.J. Woeginger. Springer LNCS 1442, pages 13–51, 1998.
- [2] S. Albers. Online algorithms. Invited contribution in *Interaction: A New Computational Paradigm*, edited by Dina Goldin, Scott Smolka and Peter Wegner, 143–164, 2006.
- [3] S. Albers. Online computation in large networks. Invited contribution in *Handbook of Parallel Computing: Models, Algorithms and Applications*, edited by Sanguthevar Rajasekaran and John Reif, CRC Press, 37:1–23, 2008.
- [4] S. Albers. Online list update. Invited contribution in *Encyclopedia of Algorithms*, edited by Ming-Yang Kao, Springer, 41:1–4, 2008.

Journal Articles

- [5] S. Albers and P. Brucker. The complexity of one-machine batching problems. *Discrete Applied Mathematics*, 47:87–107, 1993.
- [6] S. Albers, B. von Stengel and R. Werchner. A combined BIT and TIMESTAMP algorithm for the list update problem. *Information Processing Letters*, 56:135–139, 1995.
- [7] S. Albers and T. Hagerup. Improved parallel integer sorting without concurrent writing. *Information and Computation*, 136:25–51, 1997.
- [8] S. Albers. On the influence of lookahead in competitive paging algorithms. *Algorithmica*, 18:283–305, 1997. Invited to the special issue dedicated to ESA93.
- [9] S. Albers and M. Mitzenmacher. Revisiting the COUNTER algorithms for list update. *Information Processing Letters*, 64:155–160, 1997.
- [10] S. Albers and H. Koga. New on-line algorithms for the page replication problem. *Journal of Algorithms*, 27:75–96, 1998.
- [11] S. Albers. A competitive analysis of the list update problem with lookahead. *Theoretical Computer Science*, 197:95–109, 1998.
- [12] S. Albers. Improved randomized on-line algorithms for the list update problem. *SIAM Journal on Computing*, 27:682–693, 1998.
- [13] S. Albers and M. Mitzenmacher. Average case analyses of list update algorithms, with applications to data compression. *Algorithmica*, 21:312–329, 1998.
- [14] S. Albers and S. Leonardi. Online algorithms: Trends and perspectives. *ACM Computing Surveys*, 31:3 (electronic edition), 1999.

- [15] S. Albers. Better bounds for online scheduling. *SIAM Journal on Computing*, 29:459–473, 1999.
- [16] S. Albers and M.R. Henzinger. Exploring unknown environments. *SIAM Journal on Computing*, 29:1164–1188, 2000.
- [17] S. Albers and M. Mitzenmacher. Average case analyses of First-Fit and Random-Fit bin packing. *Random Structures and Algorithms*, 16:240-259, 2000.
- [18] S. Albers, N. Garg and S. Leonardi. Minimizing stall time in single and parallel disk systems. *Journal of the ACM*, 47:969–986, 2000.
- [19] S. Albers, M. Charikar and M. Mitzenmacher. Delayed information and action in on-line algorithms. *Information and Computation*, 170:135-152, 2001.
- [20] S. Albers, K. Kursawe and S. Schuierer. Exploring unknown environments with obstacles. *Algorithmica*, 32:123-143, 2001.
- [21] S. Albers and G. Schmidt. Scheduling with unexpected machine breakdowns. *Discrete Applied Mathematics*, 110:85-99, 2001.
- [22] S. Albers and B. Schröder. An experimental study of online scheduling algorithms. *ACM Journal of Experimental Algorithmics*, 7, 2002. Invited to the special issue dedicated to WAE00.
- [23] S. Albers. On generalized connection caching. *Theory of Computing Systems*, 35:251–267, 2002. Invited to the special issue dedicated to SPAA00.
- [24] S. Albers and M. Karpinski. Randomized splay trees: Theoretical and experimental results. *Information Processing Letters*, 81:213-221, 2002.
- [25] S. Albers. Online algorithms: A survey. *Mathematical Programming*, 97:3–26, 2003. Contribution of an invited talk presented at the *18th International Symposium on Mathematical Programming (ISMP03)*.
- [26] S. Albers, L.M. Favrholt and O. Giel. On paging with locality of reference. *Journal of Computer and System Sciences*, 70:145–175, 2005.
- [27] S. Albers and M. Büttner. Integrated prefetching and caching in single and parallel disk systems. *Information and Computation*, 198:24–39, 2005.
- [28] S. Albers and M. Schmidt. On the performance of greedy algorithms in packet buffering. *SIAM Journal on Computing*, 35:278–304, 2005.
- [29] S. Albers and H. Bals. Dynamic TCP acknowledgement: Penalizing long delays. In *SIAM Journal on Discrete Mathematics*, 199:38–951, 2005.
- [30] S. Albers and R. van Stee. A study of integrated document and connection caching. *Algorithmica*, 47:239–252, 2007.
- [31] S. Albers and Hiroshi Fujiwara. Energy-efficient algorithms for flow time minimization. *Transactions on Algorithms*, 3(4), 2007.

Conference Articles

- [32] S. Albers and T. Hagerup. Improved parallel integer sorting without concurrent writing. In *Proc. 3rd Annual ACM-SIAM Symposium on Discrete Algorithms (SODA92)*, pages 463–472, 1992.
- [33] S. Albers. On the influence of lookahead in competitive paging algorithms. In *Proc. 1st Annual European Symposium on Algorithms (ESA93)*, Springer LNCS, Volume 726, pages 1–12, 1993.
- [34] S. Albers and H. Koga. New on-line algorithms for the page replication problem. In *Proc. 4th Scandinavian Workshop on Algorithm Theory (SWAT94)*, Springer LNCS, Volume 824, pages 25–36, 1994.
- [35] S. Albers. A competitive analysis of the list update problem with lookahead. In *Proc. 19th International Symposium on Mathematical Foundations of Computer Science (MFCS94)*, Springer LNCS, Volume 841, pages 201–210, 1994.
- [36] S. Albers. Improved randomized on-line algorithms for the list update problem. In *Proc. 6th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA95)*, pages 412–419, 1995.
- [37] S. Albers and H. Koga. Page migration with limited local memory capacity. In *Proc. 4th International Workshop on Algorithms and Data Structures (WADS95)*, Springer LNCS, Volume 955, pages 147–158, 1995.
- [38] S. Albers and M. Mitzenmacher. Average case analyses of list update algorithms, with applications to data compression. In *Proc. 23rd International Colloquium on Automata, Languages, and Programming (ICALP96)*, Springer LNCS, Volume 1099, pages 514–525, 1996.
- [39] S. Albers. Better bounds for online scheduling. In *Proc. 29th Annual ACM Symposium on Theory of Computing (STOC97)*, pages 130–139, 1997.
- [40] S. Albers and M.R. Henzinger. Exploring unknown environments. In *Proc. 29th Annual ACM Symposium on Theory of Computing (STOC97)*, pages 416–425, 1997.
- [41] S. Albers and M. Mitzenmacher. Average case analyses of First-Fit and Random-Fit bin packing. In *Proc. 9th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA98)*, pages 290–299, 1998.
- [42] S. Albers, N. Garg and S. Leonardi. Minimizing stall time in single and parallel disk systems. In *Proc. 30th Annual ACM Symposium on Theory of Computing (STOC98)*, pages 454–462, 1998.
- [43] S. Albers, M. Charikar and M. Mitzenmacher. On delayed information and action in on-line algorithms. In *Proc. 39th Annual IEEE Symposium on Foundations of Computer Science (FOCS98)*, pages 71–80, 1998.
- [44] S. Albers and K. Kursawe. Exploring unknown environments with obstacles. In *Proc. 10th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA99)*, pages 842–843, 1999.
- [45] S. Albers, S. Arora and S. Khanna. Page replacement for general caching problems. In *Proc. 10th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA99)*, pages 31–40, 1999.

- [46] S. Albers and G. Schmidt. Scheduling with unexpected machine breakdowns. Invited contribution in *Proc. 2nd International Workshop on Approximation Algorithms for Combinatorial Optimization Problems (APPROX99)*, Springer LNCS, Volume 1671, pages 269–280, 1999.
- [47] S. Albers. Online algorithms: A study of graph-theoretic concepts. Paper of an invited lecture in *Proc. 25th International Workshop on Graph-Theoretic Concepts in Computer Science (WG99)*, Springer LNCS, Volume 1665, pages 10–26, 1999.
- [48] S. Albers. Generalized connection caching. In *Proc. 12th ACM Symposium on Parallel Algorithms and Architectures (SPAA00)*, Bar Harbor, Maine, USA, pages 70–78, 2000.
- [49] S. Albers and B. Schröder. An experimental study of online scheduling algorithms. In *Proc. 4th Workshop on Algorithm Engineering (WAE00)*, Springer LNCS, Volume 1982, pages 11–22, 2000.
- [50] S. Albers and C. Witt. Minimizing stall time in single and parallel disk systems using multi-commodity network flows. In *Proc. 4th International Workshop on Approximation Algorithms for Combinatorial Optimization Problems (APPROX01)*, Springer LNCS, Volume 2129, pages 12–23, 2001.
- [51] S. Albers. On randomized online scheduling. In *Proc. 34th ACM Symposium on Theory of Computing (STOC02)*, pages 134–143, 2002.
- [52] S. Albers, L.M. Favrholt and O. Giel. On paging with locality of reference. In *Proc. 34th ACM Symposium on Theory of Computing (STOC02)*, pages 258–267, 2002.
- [53] S. Albers and H. Bals. Dynamic TCP acknowledgement: Penalizing long delays. In *Proc. 14th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA03)*, pages 47–55, 2003.
- [54] S. Albers and R. van Stee. A study of integrated document and connection caching. In *Proc. 30th International Colloquium on Automata, Languages and Programming (ICALP03)*, Springer LNCS, Volume 2719, pages 653–667, 2003.
- [55] S. Albers and M. Büttner. Integrated prefetching and caching in single and parallel disk systems. In *Proc. 15th Annual ACM Symposium on Parallelism in Algorithms and Architectures (SPAA03)*, pages 109–117, 2003.
- [56] S. Albers and M. Büttner. Integrated prefetching and caching with read and write requests. In *Proc. 8th International Workshop on Algorithms and Data Structures (WADS03)*, Springer LNCS, Volume 2748, pages 162–173, 2003.
- [57] S. Albers and M. Schmidt. On the performance of greedy algorithms in packet buffering. In *Proc. 36th ACM Symposium on Theory of Computing (STOC04)*, 54–44, 2004.
- [58] S. Albers. New results on web caching with request reordering. In *Proc. 16th ACM Symposium on Parallelism in Algorithms and Architectures (SPAA04)*, pages 84–92, 2004.
- [59] S. Albers and H. Fujiwara. Energy-efficient algorithms for flow time minimization. In *Proc. 23rd International Symposium on Theoretical Aspects of Computer Science (STACS06)*, Springer LNCS, Volume 3884, pages 621–633, 2006.

- [60] S. Albers, S. Eilts, E. Even-Dar, Y. Mansour and L. Roditty. On Nash equilibria for a network creation game. In *Proc. 17th ACM-SIAM Symposium on Discrete Algorithms (SODA06)*, pages 89–98, 2006.
- [61] S. Albers, F. Müller and S. Schmelzer. Speed scaling on parallel processors. Accepted for publication in *Proc. 19th ACM Symposium on Parallelism in Algorithms and Architectures (SPAA'07)*, 2007.
- [62] S. Albers and T. Jacobs. An experimental study of new and known online packet buffering algorithms. In *Proc. 15th Annual European Symposium on Algorithms (ESA07)*, Springer LNCS, Volume 4698, pages 63–74, 2007.
- [63] S. Albers. On the value of coordination in network design. In *Proc. 19th ACM-SIAM Symposium on Discrete Algorithms (SODA08)*, pages 294–303, 2008.
- [64] S. Albers and S. Lauer. On list update with locality of reference. In *Proc. 35th International Colloquium on Automata, Languages and Programming (ICALP08)*, Springer LNCS, Volume 5125, 96–107, 2008.

Books Edited

- [65] S. Albers and T. Radzik. *Proceedings of the 12th European Symposium on Algorithms*. Springer LNCS, Volume 3221, 2004.
- [66] S. Albers and P. Weil. *Proceedings of the 25th Annual Symposium on Theoretical Aspects of Computer Science*. IBFI Schloss Dagstuhl, ISBN 978-3-939897-06-4, 2008.

Educational Papers

- [67] S. Albers. Lecture notes on competitive online algorithms. BRICS Lecture Series LS-96-2, Århus University, Denmark, 1996.
- [68] S. Albers. Competitive online algorithms. *Optima*, 54:1–8, 1997. Feature article in *Optima*, the newsletter of the Mathematical Programming Society. Article was invited by Karen Aardal (Utrecht University), who is editor of the newsletter.
- [69] S. Albers. “Online algorithms: What is it worth to know the future?” Feature article in *Log-In* (journal for high school teachers in Germany).
- [70] S. Albers and S. Schmelzer. Online algorithms: What is it worth to know the future? Contribution within the initiative “Algorithm of the Week”, initiated by the German Society of Computer Science (Gesellschaft für Informatik) as part of the “Year of Computer Science”.

Dissertation

- [71] S. Albers. On the influence of lookahead in competitive on-line algorithms. Dissertation, Saarland University, 1993.