

# Curriculum Vitae

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## Personal Data

Date of birth: February 11, 1963. Citizenship: Danish. Marital status: married to Joan Faye Boyar. Children: one (born March 11, 1993).

Knight of the Order of Dannebrog (Ridder af Dannebrog), appointed by Her Majesty Queen Margrethe II of Denmark, September 23, 2015.

## Degrees

- Ph.D., Computer Science, University of Aarhus, 1993 (Mar. 8). Advisor: Erik Meineche Schmidt. Area: Algorithmics/Databases. Thesis: *High Level Efficiency in Database Languages*.
- M.S. (cand. scient.), Computer Science, University of Aarhus, 1988 (Aug. 31). Advisor: Mogens Nielsen. Area: Concurrency (Semantics). Thesis: *A Fully Abstract Model for a Process Algebra with Refinement*.
- B.S. (bifag), Mathematics and Computer Science, University of Aarhus, 1985.

## Primary Research Interests

Online Algorithms, Data Structures, Database Systems, Algorithmics.

## Full-Time Work Experience

- Professor (Full Professor), Department of Mathematics and Computer Science, University of Southern Denmark, Odense, 2004 to present.
- Institutleder (Head of Department), Department of Mathematics and Computer Science, University of Southern Denmark, Odense, 2003–2006.
- Lektor (Associate Professor), Department of Mathematics and Computer Science, University of Southern Denmark, Odense, 1997–2004.
- Adjunkt (Assistant Professor), Department of Mathematics and Computer Science, Odense University, 1995–1997.
- Forskningsadjunkt (Post Doc), Department of Mathematics and Computer Science, Odense University, 1993–1994.

## **Additional Paid Work during Academic Career**

- Various expert/consultant tasks for industry.
- A large number of external examiner tasks (see later).
- Evaluations for research councils and publishers.

## **Visiting Positions**

- Visiting Professor, David R. Cheriton School of Computer Science, University of Waterloo, August to December, 2012. Hosted by J. Ian Munro and Alejandro López-Ortiz.
- Visiting Professor, Department of Computer Science, University of Toronto, August to December, 2012. Hosted by Faith Ellen (one day per week).
- Visiting Researcher, Department of Computer Science, Donald Bren School of Information and Computer Sciences, University of California, Irvine, July to December, 2007. Hosted by Sandra Irani.
- Visiting Faculty Member, Department of Computer Science, University of Toronto, July 2002 to January 2003. Hosted by Allan Borodin and Faith Ellen.
- Visiting Assistant Professor, Department of Computer Sciences, University of Wisconsin, Madison, January to August, 1997. Hosted by Eric Bach.
- Visiting Scholar, Department of Computer Science, University of Toronto, September 1990 to August 1991. Hosted by Alberto Mendelzon.

## **External Appointments**

- Chairman of the national External Examiners in Computer Science (formand for Censorkorpset i Datalogi), April 2014 to March 2018.
- Member of the Computer Science Group for the national Bibliometric Research Indicator, under the Ministry of Higher Education and Science, November 2009 to December 2016.
- Board member of DANAIM, the Danish Research Association for Informatics and Mathematics (DANAIM serves as the representative of Danish research institutions in ERCIM, the European Research Consortium for Informatics and Mathematics), August 2007 to December 2010.
- Member of the Tietgen Business College Education Council for Computer Science (Tietgenskolens Uddannelsesråd for Datamatikeruddannelsen), June 2001 to July 2002.
- Member of the Danish Patent Consortium for IT, Telecommunication, Electronics, and Measuring Techniques, March 2000 to July 2002.
- National external examiner in Computer Science (medlem af Censorkorpset i Datalogi), April 1994 to March 2018.
- National external examiner for Mathematics, Physics, and Social Studies in Engineering (medlem af Censorkorpset i matematik, fysik og samfundsfag inden for ingeniøruddannelserne), April 2002 to March 2010.

- National external examiner in Electrical Engineering (medlem af Censorkorpset for Elektroingeniøruddannelsen), April 1994 to March 2006.

## Honors

- Best Newcomer, Awarded by the Program Committee of the Twentieth ACM SIGACT-SIGMOD-SIGART Symposium on Principles of Database Systems.

## Invited Talks (selected)

- Tenth Conference on Computability in Europe, Budapest, Hungary, 2014.
- Several talks at Schloss Dagstuhl—International Conference and Research Center for Computer Science.
- Some North American universities: Cornell University, Loyola University Chicago, University of California, University of Toronto, University of Waterloo, University of Wisconsin.
- The Danish universities: University of Copenhagen, University of Aarhus, University of Southern Denmark, Aalborg University, Technical University of Denmark, Roskilde University.
- Many talks on accepted papers at various conferences.

## External Research Grants

### Principal Investigator

- *Algorithmic Challenges*, the Danish Council for Independent Research | Natural Sciences, 1,036,800 Dkr., July 2014 to June 2017.
- *Online Algorithms at Waterloo and Toronto* (for visit to University of Waterloo, primarily), the Danish Research Councils, 163,754 Dkr., August 2012 to December 2012.
- *Analysis of a Reservation System*, Dancamps, 62,500 Dkr., 2009.
- *Fundamental Problems in Online, String, and Wireless Network Algorithms*, the Danish Research Councils, 994,875 Dkr., 2008–2010.
- *Development of quality measures for on-line algorithms* (for visit to University of California, Irvine), the Danish Research Councils, 110,370 Dkr., July 2007 to December 2007.
- *Group updates in search trees and measures for on-line algorithms* (for visit to University of Toronto), the Danish Research Councils, 111,660 Dkr., July 2002 to January 2003.
- *Algorithmics*, the Danish Natural Science Research Council, 400,000 Dkr., 2002–2004.
- *Relaxed balance in parallel data structures and fundamental results on the seat reservation problem* (for visit to University of Wisconsin, Madison), the Danish Research Councils, 55,620 Dkr., February 1997 to August 1997.

- *Travel during Ph.D. program* (for visit to University of Toronto), the Danish Science Research Academy, 76,000 Dkr., September 1990 to August 1991.
- *Ph.D. fellowship plus tuition*, joint foundation based at Aalborg and Aarhus Universities, 1989–1991.

### **Participant**

- *Online Algorithms and Cheminformatics Meet Concurrency*, the Danish Research Councils, 1,382,962 Dkr., principal investigator: Joan Boyar (a total of 6 researchers), July 2017 to June 2020.
- *Online Algorithms and Advice*, the Villum Foundation 2,900,101 Dkr., principal investigator: Joan Boyar (a total of 3 researchers), 2013–2016.
- *On-Line Algorithms, Bioinformatics, and SAT Solving*, the Danish Research Councils, 1,267,200 Dkr., principal investigator: Joan Boyar (a total of 6 researchers), 2011–2013.
- *Efficient Algorithms and High Quality Solutions*, The Danish Research Coordination Committee, 12,000,000 Dkr., one out of six co-applicants (primary applicant: Joan Boyar), 2010–2013.
- *Algorithmics*, the Danish Natural Science Research Council, 480,000 Dkr., principal investigator: Joan Boyar (a total of 5 researchers), 2005–2007.
- *Nordic Network on Algorithms*, Nordic Academy for Advanced Study, 900,000 NOK, principal investigator: Fedor Fomin; member of the group at University of Southern Denmark, 2005–2007.
- *Algorithms and Complexity—Future Technologies (ALCOM-FT)*, the IST Programme of the EU under contract number IST-1999-14186, 667,000 Euro per year, member of the Aarhus group; one of more than 100 participants, 2000–2003.
- *Algorithmics*, the Danish Natural Science Research Council, 300,000 Dkr., principal investigator: Joan Boyar (a total of 2 researchers), 1999–2001.
- *Algorithms and Complexity in Information Technology (ALCOM-IT)*, the ESPRIT Long Term Research Programme of the EU under project number 20244, 677,000 ECU per year, member of the Aarhus group; one of more than 100 participants, 1996–1998.

### **Professional Activities (selected)**

#### **Program Committees**

- Member of the program committee for the Twentieth European Symposium on Algorithms (ESA), the Design and Analysis Track (track A), 2012.
- Member of the program committee for the Thirteenth Annual International Computing and Combinatorics Conference (COCOON), 2007.
- Member of the program committee for the First International Symposium on Combinatorics, Algorithms, Probabilistic and Experimental Methodologies (ESCAPE), 2007.
- Member of the program committee for the Eleventh International Conference on Database Theory (ICDT), 2007.
- Member of the program committee for the Ninth Scandinavian Workshop on Algorithm Theory (SWAT), 2004.

### **Conference Organization**

- Co-organizer of Algorithmic Research: Cooperation around Oresound (ARCO), Spring 2016.
- Co-organizer of Trends in Online Algorithms (TOLA), Summer 2014, held as a satellite workshop of ICALP 2014.
- Co-organizer of Algorithmic Research: Cooperation around Oresound (ARCO), Spring 2013.
- Co-organizer of the Workshop on On-Line Algorithms (OLA), held as a satellite workshop of SWAT 2004.
- Co-organizer of the Tenth Workshop on Applied/Advanced Research in Combinatorial Optimization (ARCO), 2003.

### **Other Services (selected)**

- External member of the assessment committee for 64 applicants for a number of assistant and associate professorships at the IT University of Copenhagen, 2015/16.
- International evaluator for the Czech Academy of Sciences, 2015.
- Reviewer for the Israel Science Foundation, 2015.
- Reviewer for the German Research Foundation (Die Deutsche Forschungsgemeinschaft), 2013.
- External referee for full professor promotion at a top-ranked Canadian computer science department, 2011.
- Expert for the French National Research Agency (L'Agence nationale de la recherche), 2011.
- Member of the 3-person committee to select the best Danish MS thesis of the year for the Danish Computer Science Society (Dansk Selskab for Datalogi), 2010 and 2011.
- External member of a selection committee for one associate professorship (lektor) and three assistant professorships (adjunkt) at the Department of Computer Science, University of Aalborg, 2008.
- External member of a selection committee for a number of assistant professorships (adjunkt) at the Department of Computer Science, University of Aalborg, 2003.
- External member of a selection committee for a temporary associate professorship (lektor) at the Department of Computer Science, University of Aarhus, 2003.
- Invited speaker at the annual national fall break conference for high school computer science teachers, November 1998, with the address "Breaking through the Sorting Barrier".
- Expert for "Ask a Scientist" (Spørg Naturvidenskaben), 1998 to 2011, and the "Danish Encyclopedia" (Den Store Danske), 2009 to present.

- Referee for the journals ACM Transactions on Algorithms, Acta Cybernetica, Acta Informatica, Algorithmica, Computer Journal, Computers & Industrial Engineering, Data & Knowledge Engineering, European Journal of Operational Research, Information Processing Letters, International Journal of Foundations of Computer Science, International Journal of Production Economics, Journal of Combinatorial Optimization, Journal of Computer and Software Engineering, Journal of Graph Algorithms and Applications, Journal of Parallel and Distributed Computing, Journal of Scheduling, Nordic Journal of Computing, Optimization Methods and Software, Parallel Computing, Theoretical Computer Science.

Referee for the conferences ACM SIGMOD International Conference on Management of Data, Conference on Foundations of Software Technology and Theoretical Computer Science, Data Compression Conference, European Symposium on Algorithms, International Colloquium on Automata, Languages and Programming, International Computing and Combinatorics Conference International Conference on Database Theory International Symposium on Combinatorics, Algorithms, Probabilistic and Experimental Methodologies International Symposium on Mathematical Foundations of Computer Science, Scandinavian Workshop on Algorithm Theory, Workshop on Approximation and Online Algorithms, Workshop on Experimental Algorithms.

Referee for the publishers Cambridge University Press, Prentice Hall.

### **Services at the University of Southern Denmark (selected)**

- Our department's representative in the national informal forum of heads of IT departments (instead of our head of department who is currently a mathematician), 2013 to present.
- Chairman of the Steering Group for Research Strategy Development for the Faculty of Science, 2009–2010.
- Chairman of many selection committees for assistant/associate/full Computer Science professorships at the department.
- Member of the Academic Council for the Faculty of Science, January 2009 to December 2012.
- Member of the university's Equal Opportunities Committee, February 2011 to April 2014.
- Member of the university's IT Education Forum, January 2009 to December 2011.
- Member of the Tenure Committee for the Faculty of Science, April 2008 to present.
- Pedagogical/professional advisor in connection with mandatory pedagogical training for assistant professors, 2005 and 2010/11, 2015.
- Member of the Cooperation Committee (samarbejdsudvalg) under the Faculty of Science and Engineering, January 2003 to June 2006.
- Head of the Department of Mathematics and Computer Science, January 2003 to June 2006. The department had approximately 40 full-time employees as well as a large number of part-time employees and responsibility for study programs at all levels in mathematics and computer science as well as teaching, promotion, outreach, and funding activities related to those areas.

- Member of the university committee for standardization of transfer agreements with other institutions, March to July, 2002.
- Member of the study board for Interactive Media, January 2002 to July 2002.
- Member of the committee for Open Education under the Faculty of Science and Engineering, May 2000 to April 2001.
- Member of the departmental board for the Department of Mathematics and Computer Science, January 2000 to July 2002.
- Chairman of the Studies Committee for Mathematics and Computer Science, June 1998 to January 2000.
- Organizer of the Computer Science Colloquia, 1995–2002.
- Member of a large number of ad hoc committees with the purpose of updating curriculum, starting and evaluating study programs.

## **Teaching, Advising, and External Examiner Experience**

### **Formal Pedagogical Training**

- Certified C2 (best of the 6 levels A1, A2, B1, B2, C1, C2) in English according to the Common European Framework of Reference (CEFR), 2015.
- Course on project-oriented supervision of groups, 2006 (2 days).
- Nordic Seminar for Ph.D. Supervisors, 2004 (2 days).
- Assistant Professor Pedagogical Certificate, Odense University, 1996 (80 hours).

### **Courses Taught** [many several times]

Programming languages (logic/functional), Compiler construction, Online algorithms, Computational geometry, Database systems, Algorithms and data structures, Advanced data structures, Formal languages (languages, automata theory, computability, semantics), Deductive database systems, Logic programming.

### **Advising**

Advised thesis students at all levels, graduating: 159 BS, 32 MS, 8 Ph.D. Additionally, usually students in progress.

### **Ph.D. Students Advised**

- Anders Nicolai Knudsen, in progress: “Flight Route Optimization”. Co-advisors: Jørgen Bang-Jensen, Marco Chiarandini.
- Marie Christ, February 2014: “Multi-Coloring and Bin Covering—performance measures and models”. Co-advisor: Lene M. Favrholdt.
- Abyayananda Maiti, November 2013: “Analysis of Online Searching and Streaming Problems via a Diverse Collection of Performance Measures”. Co-advisor: Joan Boyar.
- Sushmita Gupta, November 2013: “New Perspectives on Paging and Server Problems”. Co-advisor: Joan Boyar.

- Martin Rud Ehmsen, May 2010: “Towards Better Online Algorithms”.
- Bárður Árantsson, January 2007: “The Grid Block Device—Simple and Flexible Fault Tolerant Distributed Storage”. Co-advisor: Brian Vinter.
- Jens Svalgaard Kohrt, November 2004: “Online Algorithms under New Assumptions”.
- Morten Nyhave Nielsen, June 2002: “On Measuring the Quality of On-Line Algorithms”. Co-advisor: Joan Boyar.
- Lars Jacobsen, November 2001: “Search Trees with Local Rules”.

### **Ph.D. Committees**

In the following, the term “qualifying exam” is used as a translation for the Danish “kvalificerende eksamen”. However, there is a considerable variation among different institutions as to how this term is interpreted. In Denmark, it is a “mini Ph.D. defense” in the form of a mid-way evaluation after two of the four years of a Ph.D. study. The student presents research results already accomplished and fairly detailed ideas for future work, before the external examiner asks questions about the presentation, the report, and the future plans.

- Chairman of Jesper With Mikkelsen’s Ph.D. committee with Rob van Stee (University of Siegen) and Inge Li Gørtz (Technical University of Denmark), University of Southern Denmark, Odense, March, 2017.
- Chairman of Christian Kudahl’s Ph.D. committee with Rob van Stee (University of Siegen) and Inge Li Gørtz (Technical University of Denmark), University of Southern Denmark, Odense, March, 2017.
- Chairman of Kaiji Chen’s Ph.D. committee with Marcos Vaz Salles (University of Copenhagen) and Bin Yang (Aalborg University), University of Southern Denmark, Odense, May 2016.
- External examiner on Gerth Stølting Brodal’s Ph.D. student Edvin Berglin’s qualifying exam, University of Aarhus, October 2015.
- External examiner on Lars Arge’s Ph.D. student Jungwoo Yang’s qualifying exam, University of Aarhus, August 2013.
- Member of Lasse Deleuran’s Ph.D. committee with Ian Munro (University of Waterloo) and Anders Møller (University of Aarhus), University of Aarhus, September 2012.
- Chairman of Rune Larsen’s Ph.D. committee with Sanja Petrovic (University of Nottingham) and Thomas Stütze (Université Libre de Bruxelles), University of Southern Denmark, Odense, June 2012.
- External examiner on Lars Arge’s Ph.D. student Kasper Green Larsen’s qualifying exam, University of Aarhus, June 2011.
- External examiner on Lars Arge’s Ph.D. student Morten Revsbæk’s qualifying exam, University of Aarhus, May 2011.
- External examiner on Lars Arge’s Ph.D. student Freek van Walderveen’s qualifying exam, University of Aarhus, February 2011.
- External examiner on Gerth Stølting Brodal’s Ph.D. student Mark Greve’s qualifying exam, University of Aarhus, January 2010.



- External examiner on Michael I. Schwartzbach's and Anders Møller's Ph.D. student Johnni Winther's qualifying exam, University of Aarhus, November 2009.
- External examiner on Lars Arge's Ph.D. student Lasse Kosetski Deleuran's qualifying exam, University of Aarhus, August 2009.
- Chairman of Uffe Flarup's Ph.D. committee with Peter Bro Miltersen (University of Aarhus) and Johann (Janos) A. Makowsky (Technion – Israel Institute of Technology), University of Southern Denmark, Odense, August 2008.
- External examiner on Lars Arge's Ph.D. student Anders Hessellund Jensen's qualifying exam, University of Aarhus, July 2008.
- External examiner on Lars Arge's Ph.D. student Thomas Mølhave's qualifying exam, University of Aarhus, June 2007.
- External examiner on Gerth Støtting Brodal's Ph.D. student Gabriel Moruz's qualifying exam, University of Aarhus, June 2005.
- Chairman of Lene M. Favrholt's Ph.D. committee with Jens Clausen (Technical University of Denmark) and Gerhard J. Woeginger (University of Twente), University of Southern Denmark, Odense, July 2002.
- Referee on Eljas Soisalon-Soininen's Ph.D. student Kerttu Pollari-Malmi's Ph.D. dissertation, Helsinki University of Technology, Finland, November 2001.
- Member of Jakob Pagter's Ph.D. committee with Arne Andersson (Uppsala University) and Mogens Nielsen (University of Aarhus), University of Aarhus, 2001.
- Chairman of Peter Høyer's Ph.D. committee with Richard Cleve (University of Calgary) and Lance Fortnow (NEC Research Institute), University of Southern Denmark, Odense, May 2000.
- External examiner on Peter Bro Miltersen's Ph.D. student Rasmus Pagh's qualifying exam, University of Aarhus, December 1999.
- Referee on Eljas Soisalon-Soininen's Ph.D. student Lauri Malmi's Ph.D. dissertation, Helsinki University of Technology, Finland, September 1997.

### **External Examiner Work**

- Chairman of the national External Examiners in Computer Science (formand for Censorkorpset i Datalogi), April 2014 to March 2018.
- Member of examination appeals committees (ankenævn), Summer 1997, Summer 1998, Winter 1999/2000, Summer 2000 (chairman), Winter 2000/2001, Summer 2002, Winter 2003/2004 (chairman), Winter 2004/2005 (2), Spring 2005, Summer 2006, Winter 2007/2008 (chairman), Summer 2008, Spring 2011 (chairman), Spring 2014 (chairman), plus a lot after accepting the chairman position.
- External examiner for University of Copenhagen (KU), University of Aarhus (AU), Aalborg University (AAU), Roskilde University (RUC), the Technical University of Denmark (DTU), and the IT University of Copenhagen (ITU).
- External examiner for oral and/or written exams in the following courses [many several times]: Advanced Algorithms (DTU), Advanced Database Technology (ITU), Algorithms and Data Structures (AU), Compiler Construction (AU), Database Management Systems (AAU), Datalogi 1 (AU), Formal Semantics of Programming Languages (AU), Fundamental Models (AU), Regularity and Automata (AU), Searching and Optimization (AU).

- External examiner on various reports and defenses, including qualifying exams, Master’s theses (specialer), Bachelor projects, and course projects.

## Publications

Please note the following (primarily for people outside the area):

- In my area, authors are almost always listed alphabetically. This also implies, in general, that people do not become coauthors without having made a significant contribution. The concept of “first author” is practically never used. Similarly, the notion of “corresponding author” means nothing more than one of the authors assuming the responsibility for forwarding unanimous decisions among the coauthors to an editor.
- Some of the conference papers listed below have also been published in journal versions; sometimes significantly extended.
- All the meetings, including the ones which are named “workshop”, are conference style meetings. None of these contributions are posters or one page abstracts. All meetings I submit papers to have the following properties: there is always a program committee and a refereeing process, a significant number of submissions are rejected, accepted papers are included in proceedings published by respected publishers or organizations, and the authors are allocated a time slot for presentation at the conference.
- International Parallel Processing Symposium (IPPS) has changed name to International Parallel and Distributed Processing Symposium (IPDPS).
- Scandinavian Workshop on Algorithm Theory (SWAT) has changed name to Scandinavian Symposium and Workshops on Algorithm Theory (still SWAT).
- Workshop on Algorithms and Data Structures (WADS) has changed name to Algorithms and Data Structures Symposium (still WADS).
- ORCID: 0000-0003-0560-379.

## Peer-Reviewed International Journal Articles

- [1] Joan Boyar, Leah Epstein, Lene M. Favrholdt, Kim S. Larsen, and Asaf Levin. Online-Bounded Analysis. *Journal of Scheduling*. Accepted for Publication.
- [2] Luís Cruz-Filipe, Kim S. Larsen, and Peter Schneider-Kamp. Formally Proving Size Optimality of Sorting Networks. *Journal of Automated Reasoning*. Accepted for Publication.
- [3] Joan Boyar, Lene M. Favrholdt, Christian Kudahl, Kim S. Larsen, and Jesper W. Mikkelsen. Online Algorithms with Advice: A Survey. *ACM Computing Surveys*, 50(2):1–34, 2017. Article No. 19.
- [4] Joan Boyar, Shahin Kamali, Kim S. Larsen, and Alejandro López-Ortiz. On the List Update Problem with Advice. *Information and Computation*, 253(3):411–423, 2017.
- [5] Joan Boyar, Shahin Kamali, Kim S. Larsen, and Alejandro López-Ortiz. Online Bin Packing with Advice. *Algorithmica*, 74(1):507–527, 2016.
- [6] Jan Christensen, Anders Nicolai Knudsen, and Kim S. Larsen. Soccer Is Harder than Football. *International Journal of Foundations of Computer Science*, 26(4):477–486, 2015.

- [7] Joan Boyar, Kim S. Larsen, and Abyayananda Maiti. The Frequent Items Problem in Online Streaming under Various Performance Measures. *International Journal of Foundations of Computer Science*, 26(4):413–439, 2015.
- [8] Marie G. Christ, Lene M. Favrholdt, and Kim S. Larsen. Online Multi-Coloring with Advice. *Theoretical Computer Science*, 596:79–91, 2015.
- [9] Joan Boyar, Sandy Irani, and Kim S. Larsen. A Comparison of Performance Measures for Online Algorithms. *Algorithmica*, 72(4):969–994, 2015.
- [10] Joan Boyar, Sushmita Gupta, and Kim S. Larsen. Relative Interval Analysis of Paging Algorithms on Access Graphs. *Theoretical Computer Science*, 568:28–48, 2015.
- [11] Marie G. Christ, Lene M. Favrholdt, and Kim S. Larsen. Online Bin Covering: Expectations vs. Guarantees. *Theoretical Computer Science*, 556:71–84, 2014.
- [12] Joan Boyar, Kim S. Larsen, and Abyayananda Maiti. A Comparison of Performance Measures via Online Search. *Theoretical Computer Science*, 532:2–13, 2014.
- [13] Marie G. Christ, Lene M. Favrholdt, and Kim S. Larsen. Online Multi-Coloring on the Path Revisited. *Acta Informatica*, 50(5–6):343–357, 2013.
- [14] Martin R. Ehmsen and Kim S. Larsen. Better Bounds on Online Unit Clustering. *Theoretical Computer Science*, 500:1–24, 2013.
- [15] Martin R. Ehmsen and Kim S. Larsen. A Technique for Exact Computation of Pre-coloring Extension on Interval Graphs. *International Journal of Foundations of Computer Science*, 24(1):109–122, 2013.
- [16] Martin R. Ehmsen, Jens S. Kohrt, and Kim S. Larsen. List Factoring and Relative Worst Order Analysis. *Algorithmica*, 66(2):287–309, 2013.
- [17] Joan Boyar, Martin R. Ehmsen, Jens S. Kohrt, and Kim S. Larsen. A Theoretical Comparison of LRU and LRU-K. *Acta Informatica*, 47(7–8):359–374, 2010.
- [18] Kim S. Larsen and Sanne Wøhlk. Competitive Analysis of the Online Inventory Problem. *European Journal of Operational Research*, 207(2):685–696, 2010.
- [19] Allan Borodin, Joan Boyar, Kim S. Larsen, and Nazanin Mirmohammadi. Priority Algorithms for Graph Optimization Problems. *Theoretical Computer Science*, 411(1):239–258, 2010.
- [20] Joan Boyar, Lene M. Favrholdt, and Kim S. Larsen. The Relative Worst Order Ratio Applied to Paging. *Journal of Computer and System Sciences*, 73(5):818–843, 2007.
- [21] Joan Boyar, Leah Epstein, Lene M. Favrholdt, Jens S. Kohrt, Kim S. Larsen, Morten M. Pedersen, and Sanne Wøhlk. The Maximum Resource Bin Packing Problem. *Theoretical Computer Science*, 362(1–3):127–139, 2006.
- [22] Lars Jacobsen and Kim S. Larsen. Exponentially Decreasing Number of Operations in Balanced Trees. *Acta Informatica*, 82(4):57–78, 2005.
- [23] Jens S. Kohrt and Kim S. Larsen. On-Line Seat Reservations via Off-Line Seating Arrangements. *International Journal of Foundations of Computer Science*, 16(2):381–397, 2005.
- [24] Joan Boyar, Lene M. Favrholdt, Kim S. Larsen, and Morten N. Nielsen. Extending the Accommodating Function. *Acta Informatica*, 40(1):3–35, 2003.

- [25] Jens S. Frederiksen, Kim S. Larsen, John Noga, and Patchrawat Uthaisombut. Dynamic TCP Acknowledgment in the LogP Model. *Journal of Algorithms*, 48(2):407–428, 2003.
- [26] Kim S. Larsen. Relaxed Multi-Way Trees with Group Updates. *Journal of Computer and System Sciences*, 66(4):657–670, 2003.
- [27] Eric Bach, Joan Boyar, Leah Epstein, Lene M. Favrholdt, Tao Jiang, Kim S. Larsen, Guo-Hui Lin, and Rob van Stee. Tight Bounds on the Competitive Ratio on Accommodating Sequences for the Seat Reservation Problem. *Journal of Scheduling*, 6(2):131–147, 2003.
- [28] Lars Jacobsen, Kim S. Larsen, and Morten N. Nielsen. On the Existence and Construction of Non-Extreme  $(a, b)$ -Trees. *Information Processing Letters*, 84(2):69–73, 2002.
- [29] Yossi Azar, Joan Boyar, Leah Epstein, Lene M. Favrholdt, Kim S. Larsen, and Morten N. Nielsen. Fair versus Unrestricted Bin Packing. *Algorithmica*, 34(2):181–196, 2002.
- [30] Kim S. Larsen. Relaxed Red-Black Trees with Group Updates. *Acta Informatica*, 38(8):565–586, 2002.
- [31] Joan Boyar, Lene M. Favrholdt, Kim S. Larsen, and Morten N. Nielsen. The Competitive Ratio for On-Line Dual Bin Packing with Restricted Input Sequences. *Nordic Journal of Computing*, 8(4):463–472, 2001.
- [32] Kim S. Larsen, Eljas Soisalon-Soininen, and Peter Widmayer. Relaxed Balance using Standard Rotations. *Algorithmica*, 31(4):501–512, 2001.
- [33] Kim S. Larsen, Thomas Ottmann, and Eljas Soisalon-Soininen. Relaxed Balance for Search Trees with Local Rebalancing. *Acta Informatica*, 37(10):743–763, 2001.
- [34] Lars Jacobsen and Kim S. Larsen. Variants of  $(a, b)$ -Trees with Relaxed Balance. *International Journal of Foundations of Computer Science*, 12(4):455–478, 2001.
- [35] Joan Boyar, Kim S. Larsen, and Morten N. Nielsen. The Accommodating Function: a generalization of the competitive ratio. *SIAM Journal on Computing*, 31(1):233–258, 2001.
- [36] Kim S. Larsen. AVL Trees with Relaxed Balance. *Journal of Computer and System Sciences*, 61(3):508–522, 2000.
- [37] Kim S. Larsen. On Grouping in Relational Algebra. *International Journal of Foundations of Computer Science*, 10(3):301–311, 1999.
- [38] Joan Boyar and Kim S. Larsen. The Seat Reservation Problem. *Algorithmica*, 25(4):403–417, 1999.
- [39] Kim S. Larsen. Partially Persistent Binary Search Trees with Transcript Operations. *Discrete Mathematics and Theoretical Computer Science*, 3(3):95–107, 1999.
- [40] Kim S. Larsen. Sort Order Problems in Relational Databases. *International Journal of Foundations of Computer Science*, 9(4):399–429, 1998.
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