

# Curriculum Vitæ



**Name** Gerth Stølting Brodal  
**Born** 12 September 1969  
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## Brief Biography

Gerth Stølting Brodal is a Professor at the [Department of Computer Science, Aarhus University](#), Denmark (since January 2016). He received his PhD in computer science in 1997 from Aarhus University for the thesis “Worst Case Efficient Data Structures”. From 1997 to 1998 he was a PostDoc in the group of [Kurt Mehlhorn](#) at the [Max-Planck-Institute for Computer Science](#) in Saarbrücken, Germany. 1998–2005 he was affiliated with [BRICS](#) (Center for Basic Research in Computer Science) located at the Department of Computer Science, Aarhus University. 2004–2015 he was an Associate Professor (tenured) at the Department of Computer Science, Aarhus University. March 2007–December 2017 he was affiliated with [MADALGO](#) (Center for Massive Data Algorithmics), Aarhus University, founded by the Danish National Research Foundation.

His main research interests are the design and analysis of algorithms and data structures. He has done work on fundamental data structures, including dictionaries and priority queues, persistent data structures, computational geometry, graph algorithms, string algorithms, I/O-efficient and cache-oblivious algorithms and data structures, algorithm engineering, and computational biology.

## Education

Feb 1993–Apr 1997 PhD in Computer Science, Aarhus University, Denmark.  
 Dissertation: Worst Case Efficient Data Structures.  
 Advisor: Erik Meineche Schmidt.  
 Committee: Mogens Nielsen (Aarhus), Arne Andersson (Lund), and J. Ian Munro (Waterloo).  
 Aug 1989–Nov 1994 MSc (cand.scient.) in Computer Science and Mathematics, Aarhus University, Denmark.  
 Aug 1988–May 1989 Military service, Jyske Telegrafregiment, Fredericia, Denmark.  
 Aug 1985–Jun 1988 “Studentereksamen”, Aabenraa Gymnasium og HF, Aabenraa, Denmark.

## Positions

Jan 2016– Professor, Department of Computer Science, Aarhus University.  
 Apr 2009–Dec 2015 Associate Professor (tenured, Lektor MSK), Department of Computer Science, Aarhus University.  
 Apr 2004–Mar 2009 Associate Professor (tenured), Department of Computer Science, Aarhus University.  
 Aug 2001–Jan 2005 Associate Professor, BRICS, Department of Computer Science, Aarhus University.

- Aug 1999 – Jul 2001 Research Associate Professor, BRICS, Department of Computer Science, Aarhus University.
- Aug 1998 – Jul 1999 Research Assistant Professor, BRICS Ph.D. School, Department of Computer Science, Aarhus University.
- Feb 1997 – Jul 1998 PostDoc at the Max-Planck-Institut for Computer Science, Saarbrücken, Germany.

## Funding

- Sep 2013 – Jun 2014 Aarhus University Research Foundation, Guest Researcher Grant, Seth Pettie (University of Michigan Ann Arbor), 250.000 DKK.
- Jan 2011 – Dec 2012 Slovenian Research Agency, Project: Algorithms on Massive Geographical LiDAR Data-sets – AMAGELDA (Principal investigator: Andrej Brodnik, Ljubljana Slovenia), 3.000 Euro (22.500 DKK).
- Jan 2008 – Dec 2009 **Nordic Network on Algorithms** from the Nordic Academy for Advanced Study (NORFA). Coordinator **Fedor V. Fomin**, University of Bergen, 600.000 NOK (510.000 DKK).
- Jul 2005 – Jun 2006 The Danish Natural Science Research Council, *Graph Algorithms and Constraint Programming*, PostDoc Irit Katriel, 480.000 DKK.
- Jan 2005 – Dec 2007 The Danish Natural Science Research Council, Grant no. 21-04-0389, *Algoritmer til rekonstruktion og sammenligning af træer og netværk*. Coordinator **Christian N.S. Pedersen**, Aarhus University, 360.000 DKK.
- Jan 2005 – Dec 2007 **Nordic Network on Algorithms** from the Nordic Academy for Advanced Study (NORFA). Coordinator **Fedor V. Fomin**, University of Bergen, 900.000 NOK (825.000 DKK).
- Feb 2002 – Jan 2005 Associate Professor grant from the **Carlsberg Foundation**, 1.350.000 DKK.
- May – Jul 1998 Scholarship (PostDoc) from the Max-Planck-Institut für Informatik, Saarbrücken, Germany, 10.200 DM (39.200 DKK).
- May 1997 – Apr 1998 Scholarship (PostDoc) from the **Carlsberg Foundation**, 300.000 DKK.
- Feb – Apr 1997 Scholarship (PostDoc) from the Max-Planck-Institut für Informatik, Saarbrücken, Germany, 10.200 DM (39.200 DKK).
- Feb 1995 – Jan 1997 Scholarship (PhD-stipendium) from the Danish Natural Science Research Council, 717.591 DKK.
- Feb 1993 – Jan 1995 Scholarship (Scholarstipendium) from the Danish Research Academy, 156.000 DKK.

## Awards

- May 2019 **Lecturer of the Year**. Department of Computer Science, Aarhus University.
- May 2017 **Lecturer of the Year**. Department of Computer Science, Aarhus University.
- May 2012 **Lecturer of the Year**. Department of Computer Science, Aarhus University.
- Dec 2001 Best paper award 12th Annual International Symposium on Algorithms and Computation, for the paper “Computing the Quartet Distance Between Evolutionary Trees in Time  $O(n \log^2 n)$ ”, coauthored with Rolf Fagerberg and Christian N. S. Pedersen.

## Publications

Conference publications appearing in journals and technical reports appearing elsewhere are numbered in parenthesis with the newer appearance.

## Editor

- 1 *Scalable Data Structures (Dagstuhl Seminar 21071)*, Dagstuhl, Germany, 14–19 February 2021, Gerth Stølting Brodal, John Iacono, Markus E. Nebel and Vijaya Ramachandran (Edt.), Volume 11 of Dagstuhl Reports(1), pages 1-23. Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl Publishing, Germany, 2019, doi: [10.4230/DagRep.11.1.1](https://doi.org/10.4230/DagRep.11.1.1).
- 2 *Data Structures for the Cloud and External Memory Data (Dagstuhl Seminar 19051)*, Dagstuhl, Germany, 27 January – 1 February 2019, Gerth Stølting Brodal, Ulrich Carsten Meyer, Markus E. Nebel and Robert Sedgwick (Edt.), Volume 9 of Dagstuhl Reports(1), pages 104-124. Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl Publishing, Germany, 2019, doi: [10.4230/DagRep.9.1.104](https://doi.org/10.4230/DagRep.9.1.104).
- 3 *Algorithms - ESA 2005: 13th Annual European Symposium, Palma de Mallorca, Spain, 3–6 October 2005*, Gerth Stølting Brodal and Stefano Leonardi (Edt.), Volume 3669 of Lecture Notes in Computer Science. Springer Verlag, Berlin, 2005, doi: [10.1007/11561071](https://doi.org/10.1007/11561071).
- 4 *Algorithm Engineering – 5th International Workshop (WAE 2001)*, Aarhus, Denmark, 28–31 August 2001, Gerth Stølting Brodal, Daniele Frigioni and Alberto Marchetti-Spaccamela (Edt.), Volume 2141 of Lecture Notes in Computer Science. Springer Verlag, Berlin, 2001, doi: [10.1007/3-540-44688-5](https://doi.org/10.1007/3-540-44688-5).

## Book Chapters

- 5 Gerth Stølting Brodal, *Cache-Oblivious Sorting*. In *Encyclopedia of Algorithms*, Ming-Yang Kao (Edt.), pages 126-129. Springer Verlag, Berlin, 2008, doi: [10.1007/978-0-387-30162-4\\_63](https://doi.org/10.1007/978-0-387-30162-4_63).
- 6 Lars Arge, Gerth Stølting Brodal and Rolf Fagerberg, *Cache-Oblivious Data Structures*. In *Handbook of Data Structures and Applications*, Dinesh Mehta and Sartaj Sahni (Edt.), Chapter 34, 27 pages. CRC Press, 2005, doi: [10.1201/9781420035179.ch34](https://doi.org/10.1201/9781420035179.ch34).
- 7 Gerth Stølting Brodal, *Finger Search Trees*. In *Handbook of Data Structures and Applications*, Dinesh Mehta and Sartaj Sahni (Edt.), Chapter 11, 11 pages. CRC Press, 2005, doi: [10.1201/9781420035179.ch11](https://doi.org/10.1201/9781420035179.ch11).

## Journal Articles

- 8 Gerth Stølting Brodal and Konstantinos Mampentzidis, *Cache Oblivious Algorithms for Computing the Triplet Distance Between Trees*. In *ACM Journal of Experimental Algorithmics*, Volume 26(Article No. 1.2), pages 1-44, April 2021, doi: [10.1145/3433651](https://doi.org/10.1145/3433651).
- 9 Gerth Stølting Brodal, *In Memoriam Lars Arge*. In *Bulletin of the EATCS*, Volume 133, pages 11-14, February 2021.
- 10 Gerth Stølting Brodal, Spyros Sioutas, Konstantinos Tsakalidis and Kostas Tsihclas, *Fully persistent B-trees*. In *Theoretical Computer Science*, Volume 841, pages 10-26, 2020, doi: [10.1016/j.tcs.2020.06.027](https://doi.org/10.1016/j.tcs.2020.06.027).
- 11 Edvin Berglin and Gerth Stølting Brodal, *A Simple Greedy Algorithm for Dynamic Graph Orientation*. In *Algorithmica*, Volume 82, pages 245-259, 2020, doi: [10.1007/s00453-018-0528-0](https://doi.org/10.1007/s00453-018-0528-0).
- 12 Gerth Stølting Brodal, Pooya Davoodi, Moshe Lewenstein, Rajeev Raman and S. Srinivasa Rao, *Two Dimensional Range Minimum Queries and Fibonacci Lattices*. In *Theoretical Computer Science*, Volume 638, pages 33-43, 2016, doi: [10.1016/j.tcs.2016.02.016](https://doi.org/10.1016/j.tcs.2016.02.016).
- 13 Gerth Stølting Brodal, Spyros Sioutas, Kostas Tsihclas and Christos D. Zaroliagis, *D<sup>2</sup>-Tree: A New Overlay with Deterministic Bounds*. In *Algorithmica*, Volume 72(3), pages 860-883, 2015, doi: [10.1007/s00453-014-9878-4](https://doi.org/10.1007/s00453-014-9878-4).
- 14 Gerth Stølting Brodal, Gabriel Moruz and Andrei Negoescu, *OnlineMin: A Fast Strongly Competitive Randomized Paging Algorithm*. In *Theory of Computing Systems, Special issue of the 9th Workshop on Approximation and Online Algorithms*, Volume 56(1), pages 22-40, 2015, doi: [10.1007/s00224-012-9427-y](https://doi.org/10.1007/s00224-012-9427-y).
- 15 Andreas Sand, Morten Kragelund Holt, Jens Johansen, Gerth Stølting Brodal, Thomas Mailund and Christian Nørgaard Storm Pedersen, *tqDist: A Library for Computing the Quartet and Triplet Distances Between Binary or General Trees*. In *Bioinformatics*, Volume 30(14), pages 2079-2080, 2014, doi: [10.1093/bioinformatics/btu157](https://doi.org/10.1093/bioinformatics/btu157).

- 16 Gerth Stølting Brodal, Alexis Kaporis, Apostolos Papadopoulos, Spyros Sioutas, Konstantinos Tsakalidis and Kostas Tsichlas, *Dynamic 3-sided Planar Range Queries with Expected Doubly Logarithmic Time*. In *Theoretical Computer Science*, Volume 526, pages 58-74. Elsevier Science, 2014, doi: [10.1016/j.tcs.2014.01.014](https://doi.org/10.1016/j.tcs.2014.01.014).
- 17 Gerth Stølting Brodal, Mark Greve, Vineet Pandey and S. Srinivasa Rao, *Integer Representations towards Efficient Counting in the Bit Probe Model*. In *Journal of Discrete Algorithms*, Volume 26, pages 34-44, 2014, doi: [10.1016/j.jda.2013.11.001](https://doi.org/10.1016/j.jda.2013.11.001).
- 18 Andreas Sand, Morten Kragelund Holt, Jens Johansen, Rolf Fagerberg, Gerth Stølting Brodal, Christian Nørgaard Storm Pedersen and Thomas Mailund, *Algorithms for Computing the Triplet and Quartet Distances for Binary and General Trees*. In *Biology - Special Issue on Developments in Bioinformatic Algorithms*, Volume 2(4), pages 1189-1209, 2013, doi: [10.3390/biology2041189](https://doi.org/10.3390/biology2041189).
- 19 Andreas Sand, Gerth Stølting Brodal, Rolf Fagerberg, Christian Nørgaard Storm Pedersen and Thomas Mailund, *A practical  $O(n \log^2 n)$  time algorithm for computing the triplet distance on binary trees*. In *BMC Bioinformatics*, Volume 14(Suppl 2), S18 pages, 2013, doi: [10.1186/1471-2105-14-S2-S18](https://doi.org/10.1186/1471-2105-14-S2-S18).
- 20 Lars Arge, Gerth Stølting Brodal and S. Srinivasa Rao, *External Memory Planar Point Location with Logarithmic Updates*. In *Algorithmica*, Volume 63(1), pages 457-475, 2012, doi: [10.1007/s00453-011-9541-2](https://doi.org/10.1007/s00453-011-9541-2).
- 21 Gerth Stølting Brodal, Pooya Davoodi and S. Srinivasa Rao, *On Space Efficient Two Dimensional Range Minimum Data Structures*. In *Algorithmica, Special issue on ESA 2010*, Volume 63(4), pages 815-830, 2012, doi: [10.1007/s00453-011-9499-0](https://doi.org/10.1007/s00453-011-9499-0).
- 22 Gerth Stølting Brodal, Beat Gfeller, Allan Grønlund Jørgensen and Peter Sanders, *Towards Optimal Range Median*. In *Theoretical Computer Science, Special issue of ICALP'09*, Volume 412(24), pages 2588-2601. Elsevier Science, 2011, doi: [10.1016/j.tcs.2010.05.003](https://doi.org/10.1016/j.tcs.2010.05.003).
- 23 Martin Kutz, Gerth Stølting Brodal, Kanela Kaligosi and Irit Katriel, *Faster Algorithms for Computing Longest Common Increasing Subsequences*. In *Journal of Discrete Algorithms, Special Issue of CPM 2006*, Volume 9(4), pages 314-325. Elsevier Science, 2011, doi: [10.1016/j.jda.2011.03.013](https://doi.org/10.1016/j.jda.2011.03.013).
- 24 Michael A. Bender, Gerth Stølting Brodal, Rolf Fagerberg, Dongdong Ge, Simai He, Haodong Hu, John Iacono and Alejandro López-Ortiz, *The Cost of Cache-Oblivious Searching*. In *Algorithmica*, Volume 61(2), pages 463-505, 2011, doi: [10.1007/s00453-010-9394-0](https://doi.org/10.1007/s00453-010-9394-0).
- 25 Michael A. Bender, Gerth Stølting Brodal, Rolf Fagerberg, Riko Jacob and Elias Vicari, *Optimal Sparse Matrix Dense Vector Multiplication in the I/O-Model*. In *Theory of Computing Systems, Special issue of SPAA'07*, Volume 47(4), pages 934-962. Springer Verlag, Berlin, 2010, doi: [10.1007/s00224-010-9285-4](https://doi.org/10.1007/s00224-010-9285-4).
- 26 Martin Stissing, Thomas Mailund, Christian Nørgaard Storm Pedersen, Gerth Stølting Brodal and Rolf Fagerberg, *Computing the All-Pairs Quartet Distance on a set of Evolutionary Trees*. In *Journal of Bioinformatics and Computational Biology*, Volume 6(1), pages 37-50, 2008, doi: [10.1142/S0219720008003266](https://doi.org/10.1142/S0219720008003266).
- 27 Gerth Stølting Brodal, Rolf Fagerberg and Gabriel Moruz, *On the Adaptiveness of Quicksort*. In *ACM Journal of Experimental Algorithmics, Special Issue of 7th Workshop on Algorithm Engineering and Experiments*, Volume 12(Article No. 3.2), 19 pages, 2008, doi: [10.1145/1227161.1402294](https://doi.org/10.1145/1227161.1402294).
- 28 Gerth Stølting Brodal, Loukas Georgiadis and Irit Katriel, *An  $O(n \log n)$  Version of the Averbakh-Berman Algorithm for the Robust Median of a Tree*. In *Operations Research Letters*, Volume 36(1), pages 14-18, 2008, doi: [10.1016/j.orl.2007.02.012](https://doi.org/10.1016/j.orl.2007.02.012).
- 29 Gerth Stølting Brodal, Rolf Fagerberg and Kristoffer Vinther, *Engineering a Cache-Oblivious Sorting Algorithm*. In *ACM Journal of Experimental Algorithmics, Special Issue of 6th Workshop on Algorithm Engineering and Experiments*, Volume 12(Article No. 2.2), 23 pages, 2007, doi: [10.1145/1227161.1227164](https://doi.org/10.1145/1227161.1227164).
- 30 Thomas Mailund, Gerth Stølting Brodal, Rolf Fagerberg, Christian Nørgaard Storm Pedersen and Derek Phillips, *Recrafting the Neighbor-Joining Method*. In *BMC Bioinformatics*, Volume 7(29), 2006, doi: [10.1186/1471-2105-7-29](https://doi.org/10.1186/1471-2105-7-29).
- 31 Gerth Stølting Brodal, Erik D. Demaine and J. Ian Munro, *Fast Allocation and Deallocation with an Improved Buddy System*. In *Acta Informatica*, Volume 41(4-5), pages 273-291, 2005, doi: [10.1007/s00236-005-0001-1](https://doi.org/10.1007/s00236-005-0001-1).

- 1007/s00236-004-0159-6.
- 32 Lars Arge, Gerth Stølting Brodal and Laura Toma, *On External-Memory MST, SSSP and Multiway Planar Graph Separation*. In *Journal of Algorithms*, Volume 53(2), pages 186-206, 2004, doi: [10.1016/j.jalgor.2004.04.001](https://doi.org/10.1016/j.jalgor.2004.04.001).
- 33 Gerth Stølting Brodal, Rolf Fagerberg and Christian Nørgaard Storm Pedersen, *Computing the Quartet Distance Between Evolutionary Trees in Time  $O(n \log n)$* . In *Algorithmica, Special issue on ISAAC 2001*, Volume 38(2), pages 377-395, 2004, doi: [10.1007/s00453-003-1065-y](https://doi.org/10.1007/s00453-003-1065-y).
- 34 Gerth Stølting Brodal, George Lagogiannis, Christos Makris, Athanasios Tsakalidis and Kostas Tsichlas, *Optimal Finger Search Trees in the Pointer Machine*. In *Journal of Computer and System Sciences, Special issue on 34th Annual ACM Symposium on Theory of Computing*, Volume 67(2), pages 381-418, 2003, doi: [10.1016/S0022-0000\(03\)00013-8](https://doi.org/10.1016/S0022-0000(03)00013-8).
- 35 Gerth Stølting Brodal, Christos Makris, Spyros Sioutas, Athanasios Tsakalidis and Kostas Tsichlas, *Optimal Solutions for the Temporal Precedence Problem*. In *Algorithmica*, Volume 33(4), pages 494-510, 2002, doi: [10.1007/s00453-002-0935-z](https://doi.org/10.1007/s00453-002-0935-z).
- 36 Gerth Stølting Brodal and M. Cristina Pinotti, *Comparator Networks for Binary Heap Construction*. In *Theoretical Computer Science*, Volume 250(1-2), pages 235-245, 2001, doi: [10.1016/S0304-3975\(99\)00137-1](https://doi.org/10.1016/S0304-3975(99)00137-1).
- 37 Gerth Stølting Brodal and Venkatesh Srinivasan, *Improved Bounds for Dictionary Look-up with One Error*. In *Information Processing Letters*, Volume 75(1-2), pages 57-59, 2000, doi: [10.1016/S0020-0190\(00\)00079-X](https://doi.org/10.1016/S0020-0190(00)00079-X).
- 38 Gerth Stølting Brodal, Rune Bang Lyngsø, Christian Nørgaard Storm Pedersen and Jens Stoye, *Finding Maximal Pairs with Bounded Gap*. In *Journal of Discrete Algorithms, Special Issue of Matching Patterns*, Volume 1(1), pages 77-104. Hermes Science Publishing Ltd, Oxford 2000, 2000.
- 39 Gerth Stølting Brodal, *Priority Queues on Parallel Machines*. In *Parallel Computing*, Volume 25(8), pages 987-1011, 1999, doi: [10.1016/S0167-8191\(99\)00032-0](https://doi.org/10.1016/S0167-8191(99)00032-0).
- 40 Gerth Stølting Brodal, Jesper Larsson Träff and Christos D. Zaroliagis, *A Parallel Priority Queue with Constant Time Operations*. In *Journal of Parallel and Distributed Computing, Special Issue on Parallel Data Structures*, Volume 49(1), pages 4-21, 1998, doi: [10.1006/jpdc.1998.1425](https://doi.org/10.1006/jpdc.1998.1425).
- 41 Gerth Stølting Brodal, Shiva Chaudhuri and Jaikumar Radhakrishnan, *The Randomized Complexity of Maintaining the Minimum*. In *Nordic Journal of Computing, Selected Papers of the 5th Scandinavian Workshop on Algorithm Theory (SWAT'96)*, Volume 3(4), pages 337-351, 1996.
- 42 Gerth Stølting Brodal, *Partially Persistent Data Structures of Bounded Degree with Constant Update Time*. In *Nordic Journal of Computing*, Volume 3(3), pages 238-255, 1996.
- 43 Gerth Stølting Brodal and Chris Okasaki, *Optimal Purely Functional Priority Queues*. In *Journal of Functional Programming*, Volume 6(6), pages 839-858, November 1996, doi: [10.1017/S095679680000201X](https://doi.org/10.1017/S095679680000201X).

## Conference Papers

- 44 Gerth Stølting Brodal, Rolf Fagerberg, David Hammer, Ulrich Meyer, Manuel Penschuck and Hung Tran, *An Experimental Study of External Memory Algorithms for Connected Components*. In *Proc. 20th International Symposium on Experimental Algorithms*, Volume 190 of Leibniz International Proceedings in Informatics(Article No. 23), pages 23:1–23:23. Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl Publishing, Germany, 2021, doi: [10.4230/LIPIcs.SEA.2021.23](https://doi.org/10.4230/LIPIcs.SEA.2021.23).
- 45 Gerth Stølting Brodal, *Soft Sequence Heaps*. In *Proc. 4th SIAM Symposium on Simplicity in Algorithms*, pages 14-24, 2021, doi: [10.1137/1.9781611976496.2](https://doi.org/10.1137/1.9781611976496.2) (presentation [pdf](#), [pptx](#), [mp4](#)).
- (11) Edvin Berglin and Gerth Stølting Brodal, *A Simple Greedy Algorithm for Dynamic Graph Orientation*. In *Proc. 28th Annual International Symposium on Algorithms and Computation*, Volume 92 of Leibniz International Proceedings in Informatics, pages 12:1-12:12. Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl Publishing, Germany, 2017, doi: [10.4230/LIPIcs.ISAAC.2017.12](https://doi.org/10.4230/LIPIcs.ISAAC.2017.12).
- 46 Gerth Stølting Brodal and Konstantinos Mampentzidis, *Cache Oblivious Algorithms for Computing*



- the Triplet Distance between Trees*. In *Proc. 25th Annual European Symposium on Algorithms*, Volume 87 of Leibniz International Proceedings in Informatics, pages 21:1–21:14. Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl Publishing, Germany, 2017, doi: [10.4230/LIPIcs.ESA.2017.21](https://doi.org/10.4230/LIPIcs.ESA.2017.21).
- 47 Gerth Stølting Brodal, *External Memory Three-Sided Range Reporting and Top-k Queries with Sublogarithmic Updates*. In *Proc. 33rd Annual Symposium on Theoretical Aspects of Computer Science*, Volume 47 of Leibniz International Proceedings in Informatics, pages 23:1–23:14. Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl Publishing, Germany, 2016, doi: [10.4230/LIPIcs.STACS.2016.23](https://doi.org/10.4230/LIPIcs.STACS.2016.23) (presentation [pdf](#), [pptx](#)).
- 48 Gerth Stølting Brodal, Jesper Sindahl Nielsen and Jakob Truelsen, *Strictly Implicit Priority Queues: On the Number of Moves and Worst-Case Time*. In *Proc. 14th International Workshop on Algorithms and Data Structures*, Volume 9214 of Lecture Notes in Computer Science, pages 1–12. Springer Verlag, Berlin, 2015, doi: [10.1007/978-3-319-21840-3\\_8](https://doi.org/10.1007/978-3-319-21840-3_8).
- 49 Djamel Belazzougui, Gerth Stølting Brodal and Jesper Sindahl Nielsen, *Expected Linear Time Sorting for Word Size  $\Omega(\log^2 n \log \log n)$* . In *Proc. 14th Scandinavian Workshop on Algorithm Theory*, Volume 8503 of Lecture Notes in Computer Science, pages 26–37. Springer Verlag, Berlin, 2014, doi: [10.1007/978-3-319-08404-6\\_3](https://doi.org/10.1007/978-3-319-08404-6_3).
- 50 Gerth Stølting Brodal and Kasper Green Larsen, *Optimal Planar Orthogonal Skyline Counting Queries*. In *Proc. 14th Scandinavian Workshop on Algorithm Theory*, Volume 8503 of Lecture Notes in Computer Science, pages 98–109. Springer Verlag, Berlin, 2014, doi: [10.1007/978-3-319-08404-6\\_10](https://doi.org/10.1007/978-3-319-08404-6_10) (presentation [pdf](#), [pptx](#)).
- 51 Morten Kragelund Holt, Jens Johansen and Gerth Stølting Brodal, *On the Scalability of Computing Triplet and Quartet Distances*. In *Proc. 16th Workshop on Algorithm Engineering and Experiments*, pages 9–19, 2014, doi: [10.1137/1.9781611973198.2](https://doi.org/10.1137/1.9781611973198.2) (presentation [pdf](#), [pptx](#)).
- 52 Lars Arge, Gerth Stølting Brodal, Jakob Truelsen and Constantinos Tsirogiannis, *An Optimal and Practical Cache-Oblivious Algorithm for Computing Multiresolution Rasters*. In *Proc. 21st Annual European Symposium on Algorithms*, Volume 8125 of Lecture Notes in Computer Science, pages 61–72. Springer Verlag, Berlin, 2013, doi: [10.1007/978-3-642-40450-4\\_6](https://doi.org/10.1007/978-3-642-40450-4_6).
- 53 Gerth Stølting Brodal, Andrej Brodnik and Pooya Davoodi, *The Encoding Complexity of Two Dimensional Range Minimum Data Structures*. In *Proc. 21st Annual European Symposium on Algorithms*, Volume 8125 of Lecture Notes in Computer Science, pages 229–240. Springer Verlag, Berlin, 2013, doi: [10.1007/978-3-642-40450-4\\_20](https://doi.org/10.1007/978-3-642-40450-4_20) (presentation [pdf](#), [pptx](#)).
- 54 Gerth Stølting Brodal, *A Survey on Priority Queues*. In *Proc. Conference on Space Efficient Data Structures, Streams and Algorithms – Papers in Honor of J. Ian Munro on the Occasion of His 66th Birthday*, Volume 8066 of Lecture Notes in Computer Science, pages 150–163. Springer Verlag, Berlin, 2013, doi: [10.1007/978-3-642-40273-9\\_11](https://doi.org/10.1007/978-3-642-40273-9_11) (presentation [pdf](#), [pptx](#)).
- (19) Andreas Sand, Gerth Stølting Brodal, Rolf Fagerberg, Christian Nørgaard Storm Pedersen and Thomas Mailund, *A practical  $O(n \log^2 n)$  time algorithm for computing the triplet distance on binary trees*. In *Proc. 11th Asia Pacific Bioinformatics Conference*, Advances in Bioinformatics & Computational. Tsinghua University Press, 2013.
- 55 Gerth Stølting Brodal, Rolf Fagerberg, Christian Nørgaard Storm Pedersen, Thomas Mailund and Andreas Sand, *Efficient Algorithms for Computing the Triplet and Quartet Distance Between Trees of Arbitrary Degree*. In *Proc. 24th Annual ACM-SIAM Symposium on Discrete Algorithms*, pages 1814–1832, 2013, doi: [knowledgecenter.siam.org/0236-000098](https://doi.org/10.1007/978-3-642-35261-4_55) (presentation [pdf](#), [pptx](#)).
- 56 Gerth Stølting Brodal, Jesper Sindahl Nielsen and Jakob Truelsen, *Finger Search in the Implicit Model*. In *Proc. 23th Annual International Symposium on Algorithms and Computation*, Volume 7676 of Lecture Notes in Computer Science, pages 527–536. Springer Verlag, Berlin, 2012, doi: [10.1007/978-3-642-35261-4\\_55](https://doi.org/10.1007/978-3-642-35261-4_55).
- (12) Gerth Stølting Brodal, Pooya Davoodi, Moshe Lewenstein, Rajeev Raman and S. Srinivasa Rao, *Two Dimensional Range Minimum Queries and Fibonacci Lattices*. In *Proc. 20th Annual European Symposium on Algorithms*, Volume 7501 of Lecture Notes in Computer Science, pages 217–228. Springer Verlag, Berlin, 2012, doi: [10.1007/978-3-642-33090-2\\_20](https://doi.org/10.1007/978-3-642-33090-2_20).
- 57 Gerth Stølting Brodal, George Lagogiannis and Robert E. Tarjan, *Strict Fibonacci Heaps*. In *Proc. 44th Annual ACM Symposium on Theory of Computing*, pages 1177–1184, 2012, doi: [10.1145/2213977.2214082](https://doi.org/10.1145/2213977.2214082) (presentation [pdf](#), [pptx](#)).

- 58 Gerth Stølting Brodal and Casper Kejlberg-Rasmussen, *Cache-Oblivious Implicit Predecessor Dictionaries with the Working Set Property*. In *Proc. 29th Annual Symposium on Theoretical Aspects of Computer Science*, Volume 14 of Leibniz International Proceedings in Informatics, pages 112-123. Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl Publishing, Germany, 2012, doi: [10.4230/LIPIcs.STACS.2012.112](https://doi.org/10.4230/LIPIcs.STACS.2012.112).
- 59 Gerth Stølting Brodal, Spyros Sioutas, Konstantinos Tsakalidis and Kostas Tsichlas, *Fully Persistent B-trees*. In *Proc. 23rd Annual ACM-SIAM Symposium on Discrete Algorithms*, pages 602-614, 2012, doi: [10.1137/1.9781611973099.51](https://doi.org/10.1137/1.9781611973099.51) (presentation pdf, pptx).
- (14) Gerth Stølting Brodal, Gabriel Moruz and Andrei Negoescu, *OnlineMin: A Fast Strongly Competitive Randomized Paging Algorithm*. In *Proc. 9th Workshop on Approximation and Online Algorithms*, Volume 7164 of Lecture Notes in Computer Science, pages 164-175. Springer Verlag, Berlin, 2011, doi: [10.1007/978-3-642-29116-6\\_14](https://doi.org/10.1007/978-3-642-29116-6_14).
- 60 Gerth Stølting Brodal, Pooya Davoodi and S. Srinivasa Rao, *Path Minima Queries in Dynamic Weighted Trees*. In *Proc. 12th International Workshop on Algorithms and Data Structures*, Volume 6844 of Lecture Notes in Computer Science, pages 290-301. Springer Verlag, Berlin, 2011, doi: [10.1007/978-3-642-22300-6\\_25](https://doi.org/10.1007/978-3-642-22300-6_25).
- 61 Gerth Stølting Brodal and Konstantinos Tsakalidis, *Dynamic Planar Range Maxima Queries*. In *Proc. 38th International Colloquium on Automata, Languages, and Programming*, Volume 6755 of Lecture Notes in Computer Science, pages 256-267. Springer Verlag, Berlin, 2011, doi: [10.1007/978-3-642-22006-7\\_22](https://doi.org/10.1007/978-3-642-22006-7_22).
- (17) Gerth Stølting Brodal, Mark Greve, Vineet Pandey and S. Srinivasa Rao, *Integer Representations towards Efficient Counting in the Bit Probe Model*. In *Proc. 8th Annual Conference on Theory and Applications of Models of Computation*, Volume 6648 of Lecture Notes in Computer Science, pages 206-217. Springer Verlag, Berlin, 2011, doi: [10.1007/978-3-642-20877-5\\_22](https://doi.org/10.1007/978-3-642-20877-5_22).
- 62 Peyman Afshani, Gerth Stølting Brodal and Norbert Zeh, *Ordered and Unordered Top-K Range Reporting in Large Data Sets*. In *Proc. 22nd Annual ACM-SIAM Symposium on Discrete Algorithms*, pages 390-400, 2011, doi: [10.1137/1.9781611973082.31](https://doi.org/10.1137/1.9781611973082.31).
- (13) Gerth Stølting Brodal, Spyros Sioutas, Kostas Tsichlas and Christos D. Zaroliagis, *D<sup>2</sup>-Tree: A New Overlay with Deterministic Bounds*. In *Proc. 21th Annual International Symposium on Algorithms and Computation, Part II*, Volume 6507 of Lecture Notes in Computer Science, pages 1-12. Springer Verlag, Berlin, 2010, doi: [10.1007/978-3-642-17514-5\\_1](https://doi.org/10.1007/978-3-642-17514-5_1).
- 63 Gerth Stølting Brodal, Casper Kejlberg-Rasmussen and Jakob Truelsen, *A Cache-Oblivious Implicit Dictionary with the Working Set Property*. In *Proc. ISAAC10, Part II*, Volume 6507 of Lecture Notes in Computer Science, pages 37-48. Springer Verlag, Berlin, 2010, doi: [10.1007/978-3-642-17514-5\\_4](https://doi.org/10.1007/978-3-642-17514-5_4).
- (21) Gerth Stølting Brodal, Pooya Davoodi and S. Srinivasa Rao, *On Space Efficient Two Dimensional Range Minimum Data Structures*. In *Proc. 18th Annual European Symposium on Algorithms*, Volume 6347 of Lecture Notes in Computer Science, pages 171-182. Springer Verlag, Berlin, 2010, doi: [10.1007/978-3-642-15781-3\\_15](https://doi.org/10.1007/978-3-642-15781-3_15) (presentation pdf, pptx).
- 64 Gerth Stølting Brodal, Erik D. Demaine, Jeremy T. Fineman, John Iacono, Stefan Langerman and J. Ian Munro, *Cache-Oblivious Dynamic Dictionaries with Optimal Update/Query Tradeoff*. In *Proc. 21st Annual ACM-SIAM Symposium on Discrete Algorithms*, pages 1448-1456, 2010, doi: [10.1137/1.9781611973075.117](https://doi.org/10.1137/1.9781611973075.117).
- (22) Gerth Stølting Brodal and Allan Grønlund Jørgensen, *Data Structures for Range Median Queries*. In *Proc. 20th Annual International Symposium on Algorithms and Computation*, Volume 5878 of Lecture Notes in Computer Science, pages 822-831. Springer Verlag, Berlin, 2009 2009, doi: [10.1007/978-3-642-10631-6\\_83](https://doi.org/10.1007/978-3-642-10631-6_83).
- 65 Gerth Stølting Brodal, Rolf Fagerberg, Mark Greve and Alejandro López-Ortiz, *Online Sorted Range Reporting*. In *Proc. 20th Annual International Symposium on Algorithms and Computation*, Volume 5878 of Lecture Notes in Computer Science, pages 173-182. Springer Verlag, Berlin, 2009 2009, doi: [10.1007/978-3-642-10631-6\\_19](https://doi.org/10.1007/978-3-642-10631-6_19).
- (16) Gerth Stølting Brodal, Alexis C. Kaporis, Spyros Sioutas, Konstantinos Tsakalidis and Kostas Tsichlas, *Dynamic 3-sided Planar Range Queries with Expected Doubly Logarithmic Time*. In *Proc. 20th Annual International Symposium on Algorithms and Computation*, Volume 5878 of Lecture Notes in Computer Science, pages 193-202. Springer Verlag, Berlin, 2009 2009, doi: [10.](https://doi.org/10.1007/978-3-642-10631-6_19)

- 1007/978-3-642-10631-6\_21.
- 66 Gerth Stølting Brodal, Allan Grønlund Jørgensen, Gabriel Moruz and Thomas Mølhave, *Counting in the Presence of Memory Faults*. In *Proc. 20th Annual International Symposium on Algorithms and Computation*, Volume 5878 of Lecture Notes in Computer Science, pages 842-851. Springer Verlag, Berlin, 2009 2009, doi: [10.1007/978-3-642-10631-6\\_85](https://doi.org/10.1007/978-3-642-10631-6_85).
- 67 Gerth Stølting Brodal, Allan Grønlund Jørgensen and Thomas Mølhave, *Fault Tolerant External Memory Algorithms*. In *Proc. 11th International Workshop on Algorithms and Data Structures*, Volume 5664 of Lecture Notes in Computer Science, pages 411-422. Springer Verlag, Berlin, 2009, doi: [10.1007/978-3-642-03367-4\\_36](https://doi.org/10.1007/978-3-642-03367-4_36).
- 68 Gerth Stølting Brodal and Allan Grønlund Jørgensen, *Selecting Sums in Arrays*. In *Proc. 19th Annual International Symposium on Algorithms and Computation*, Volume 5369 of Lecture Notes in Computer Science, pages 100-111. Springer Verlag, Berlin, 2008, doi: [10.1007/978-3-540-92182-0\\_12](https://doi.org/10.1007/978-3-540-92182-0_12).
- (20) Lars Arge, Gerth Stølting Brodal and S. Srinivasa Rao, *External memory planar point location with logarithmic updates*. In *Proc. 24th Annual ACM Symposium on Computational Geometry*, pages 139-147, 2008, doi: [10.1145/1377676.1377699](https://doi.org/10.1145/1377676.1377699).
- 69 Michael Westergaard, Lars Michael Kristensen, Gerth Stølting Brodal and Lars Arge, *The Com-Back Method - Extending Hash Compaction with Backtracking*. In *Proc. 28th International Conference on Applications and Theory of Petri Nets and Other Models of Concurrency, ICATPN 2007*, Volume 4546 of Lecture Notes in Computer Science, pages 445-464. Springer Verlag, Berlin, 2007 2007, doi: [10.1007/978-3-540-73094-1\\_26](https://doi.org/10.1007/978-3-540-73094-1_26).
- 70 Gerth Stølting Brodal, Rolf Fagerberg, Irene Finocchi, Fabrizio Grandoni, Giuseppe Italiano, Allan Grønlund Jørgensen, Gabriel Moruz and Thomas Mølhave, *Optimal Resilient Dynamic Dictionaries*. In *Proc. 15th Annual European Symposium on Algorithms*, Volume 4708 of Lecture Notes in Computer Science, pages 347-358. Springer Verlag, Berlin, 2007, doi: [10.1007/978-3-540-75520-3\\_32](https://doi.org/10.1007/978-3-540-75520-3_32).
- 71 Gerth Stølting Brodal, Loukas Georgiadis, Kristoffer A. Hansen and Irit Katriel, *Dynamic Matchings in Convex Bipartite Graphs*. In *Proc. 32nd International Symposium on Mathematical Foundations of Computer Science*, Volume 4708 of Lecture Notes in Computer Science, pages 406-417. Springer Verlag, Berlin, 2007, doi: [10.1007/978-3-540-74456-6\\_37](https://doi.org/10.1007/978-3-540-74456-6_37) (presentation pdf, ppt).
- 72 Gerth Stølting Brodal and Allan Grønlund Jørgensen, *A Linear Time Algorithm for the k Maximal Sums Problem*. In *Proc. 32nd International Symposium on Mathematical Foundations of Computer Science*, Volume 4708 of Lecture Notes in Computer Science, pages 442-453. Springer Verlag, Berlin, 2007, doi: [10.1007/978-3-540-74456-6\\_40](https://doi.org/10.1007/978-3-540-74456-6_40) (presentation pdf, ppt).
- (25) Michael A. Bender, Gerth Stølting Brodal, Rolf Fagerberg, Riko Jacob and Elias Vicari, *Optimal Sparse Matrix Dense Vector Multiplication in the I/O-Model*. In *Proc. 19th ACM Symposium on Parallelism in Algorithms and Architectures*, pages 61-70, 2007, doi: [10.1145/1248377.1248391](https://doi.org/10.1145/1248377.1248391).
- 73 Martin Stissing, Christian Nørgaard Storm Pedersen, Thomas Mailund, Gerth Stølting Brodal and Rolf Fagerberg, *Computing the Quartet Distance Between Evolutionary Trees of Bounded Degree*. In *Proc. 5th Asia Pacific Bioinformatics Conference*, Volume 5 of Advances in Bioinformatics & Computational Biology, pages 101-110. Imperial College Press, 2007, doi: [10.1142/9781860947995\\_0013](https://doi.org/10.1142/9781860947995_0013).
- (26) Martin Stissing, Thomas Mailund, Christian Nørgaard Storm Pedersen, Gerth Stølting Brodal and Rolf Fagerberg, *Computing the All-Pairs Quartet Distance on a set of Evolutionary Trees*. In *Proc. 5th Asia Pacific Bioinformatics Conference*, Advances in Bioinformatics & Computational Biology, pages 91-100. Imperial College Press, 2007, doi: [10.1142/9781860947995\\_0012](https://doi.org/10.1142/9781860947995_0012).
- 74 Lars Arge, Gerth Stølting Brodal and Loukas Georgiadis, *Improved Dynamic Planar Point Location*. In *Proc. 47th Annual Symposium on Foundations of Computer Science*, pages 305-314, 2006, doi: [10.1109/FOCS.2006.40](https://doi.org/10.1109/FOCS.2006.40).
- 75 Gerth Stølting Brodal, Christos Makris and Kostas Tsichlas, *Purely Functional Worst Case Constant Time Catenable Sorted Lists*. In *Proc. 14th Annual European Symposium on Algorithms*, Volume 4168 of Lecture Notes in Computer Science, pages 172-183. Springer Verlag, Berlin, 2006, doi: [10.1007/11841036\\_18](https://doi.org/10.1007/11841036_18) (presentation pdf, ppt).
- 76 Gerth Stølting Brodal and Gabriel Moruz, *Skewed Binary Search Trees*. In *Proc. 14th Annual*



- European Symposium on Algorithms*, Volume 4168 of Lecture Notes in Computer Science, pages 708-719. Springer Verlag, Berlin, 2006, doi: [10.1007/11841036\\_63](https://doi.org/10.1007/11841036_63) (presentation pdf).
- (23) Gerth Stølting Brodal, [Kanela Kaligosi](#), [Irit Katriel](#) and [Martin Kutz](#), *Faster Algorithms for Computing Longest Common Increasing Subsequences*. In *Proc. 17th Annual Symposium on Combinatorial Pattern Matching*, Volume 4009 of Lecture Notes in Computer Science, pages 330-341. Springer Verlag, Berlin, 2006, doi: [10.1007/11780441\\_30](https://doi.org/10.1007/11780441_30).
- 77 Gerth Stølting Brodal and [Rolf Fagerberg](#), *Cache-oblivious String Dictionaries*. In *Proc. 17th Annual ACM-SIAM Symposium on Discrete Algorithms*, pages 581-590, 2006, doi: [10.1145/1109557.1109621](https://doi.org/10.1145/1109557.1109621) (presentation pdf).
- 78 Gerth Stølting Brodal and [Gabriel Moruz](#), *Tradeoffs Between Branch Mispredictions and Comparisons for Sorting Algorithms*. In *Proc. 9th International Workshop on Algorithms and Data Structures, Waterloo, Canada, 15-17 August 2005*, Volume 3608 of Lecture Notes in Computer Science, pages 385-395. Springer Verlag, Berlin, 2005, doi: [10.1007/11534273\\_34](https://doi.org/10.1007/11534273_34).
- 79 Gerth Stølting Brodal, [Rolf Fagerberg](#) and [Gabriel Moruz](#), *Cache-Aware and Cache-Oblivious Adaptive Sorting*. In *Proc. 32nd International Colloquium on Automata, Languages, and Programming*, Volume 3580 of Lecture Notes in Computer Science, pages 576-588. Springer Verlag, Berlin, 2005, doi: [10.1007/11523468\\_47](https://doi.org/10.1007/11523468_47).
- 80 [Lars Arge](#), Gerth Stølting Brodal, [Rolf Fagerberg](#) and [Morten Laustsen](#), *Cache-Oblivious Planar Orthogonal Range Searching and Counting*. In *Proc. 21st Annual ACM Symposium on Computational Geometry*, pages 160-169, 2005, doi: [10.1145/1064092.1064119](https://doi.org/10.1145/1064092.1064119).
- (27) Gerth Stølting Brodal, [Rolf Fagerberg](#) and [Gabriel Moruz](#), *On the Adaptiveness of Quicksort*. In *Proc. 7th Workshop on Algorithm Engineering and Experiments*, pages 130-140, 2005, doi: [www.siam.org/meetings/alnex05/papers/12gbrodal.pdf](http://www.siam.org/meetings/alnex05/papers/12gbrodal.pdf) (presentation pdf).
- 81 Gerth Stølting Brodal, *Cache-Oblivious Algorithms and Data Structures*. In *Proc. 9th Scandinavian Workshop on Algorithm Theory*, Volume 3111 of Lecture Notes in Computer Science, pages 3-13. Springer Verlag, Berlin, 2004, doi: [10.1007/978-3-540-27810-8\\_2](https://doi.org/10.1007/978-3-540-27810-8_2) (presentation pdf).
- 82 Gerth Stølting Brodal, [Rolf Fagerberg](#), [Ulrich Meyer](#) and [Norbert Zeh](#), *Cache-Oblivious Data Structures and Algorithms for Undirected Breadth-First Search and Shortest Paths*. In *Proc. 9th Scandinavian Workshop on Algorithm Theory*, Volume 3111 of Lecture Notes in Computer Science, pages 480-492. Springer Verlag, Berlin, 2004, doi: [10.1007/978-3-540-27810-8\\_41](https://doi.org/10.1007/978-3-540-27810-8_41).
- (29) Gerth Stølting Brodal, [Rolf Fagerberg](#) and [Kristoffer Vinther](#), *Engineering a Cache-Oblivious Sorting Algorithm*. In *Proc. 6th Workshop on Algorithm Engineering and Experiments*, pages 4-17, 2004, doi: [www.siam.org/meetings/alnex04/abstracts/alnex04.pdf](http://www.siam.org/meetings/alnex04/abstracts/alnex04.pdf) (presentation pdf).
- 83 Gerth Stølting Brodal and [Riko Jacob](#), *Time-Dependent Networks as Models to Achieve Fast Exact Time-Table Queries*. In *Proc. Algorithmic Methods and Models for Optimization of Railways (AT-MOS 2003)*, Volume 92 of Electronic Notes in Theoretical Computer Science(1), 12 pages. Elsevier Science, 2003, doi: [10.1016/j.entcs.2003.12.019](https://doi.org/10.1016/j.entcs.2003.12.019).
- (24) [Michael A. Bender](#), Gerth Stølting Brodal, [Rolf Fagerberg](#), [Dongdong Ge](#), [Simai He](#), [Haodong Hu](#), [John Iacono](#) and [Alejandro López-Ortiz](#), *The Cost of Cache-Oblivious Searching*. In *Proc. 44th Annual Symposium on Foundations of Computer Science*, pages 271-282, 2003, doi: [10.1109/SFCS.2003.1238201](https://doi.org/10.1109/SFCS.2003.1238201).
- 84 Gerth Stølting Brodal, [Rolf Fagerberg](#), [Anna Östlin](#), [Christian Nørgaard Storm Pedersen](#) and [S. Srinivasa Rao](#), *Computing Refined Buneman Trees in Cubic Time*. In *Proc. 3rd Workshop on Algorithms in BioInformatics*, Volume 2812 of Lecture Notes in Computer Science, pages 259-270. Springer Verlag, Berlin, 2003, doi: [10.1007/978-3-540-39763-2\\_20](https://doi.org/10.1007/978-3-540-39763-2_20).
- 85 Gerth Stølting Brodal and [Rolf Fagerberg](#), *On the Limits of Cache-Obliviousness*. In *Proc. 35th Annual ACM Symposium on Theory of Computing*, pages 307-315, 2003, doi: [10.1145/780542.780589](https://doi.org/10.1145/780542.780589).
- 86 Gerth Stølting Brodal and [Rolf Fagerberg](#), *Lower Bounds for External Memory Dictionaries*. In *Proc. 14th Annual ACM-SIAM Symposium on Discrete Algorithms*, pages 546-554, 2003, doi: [doi.acm.org/10.1145/644108.644201](https://doi.org/10.1145/644108.644201) (presentation pdf).
- 87 Gerth Stølting Brodal and [Rolf Fagerberg](#), *Funnel Heap - A Cache Oblivious Priority Queue*. In *Proc. 13th Annual International Symposium on Algorithms and Computation*, Volume 2518 of Lecture Notes in Computer Science, pages 219-228. Springer Verlag, Berlin, 2002 2002, doi:

- [10.1007/3-540-36136-7\\_20](#) (presentation pdf).
- 88 Gerth Stølting Brodal and Riko Jacob, *Dynamic Planar Convex Hull*. In *Proc. 43rd Annual Symposium on Foundations of Computer Science*, pages 617-626, 2002, doi: [10.1109/SFCS.2002.1181985](#).
- 89 Stephen Alstrup, Gerth Stølting Brodal, Inge Li Gørtz and Theis Rauhe, *Time and Space Efficient Multi-Method Dispatching*. In *Proc. 8th Scandinavian Workshop on Algorithm Theory*, Volume 2368 of Lecture Notes in Computer Science, pages 20-29. Springer Verlag, Berlin, 2002, doi: [10.1007/3-540-45471-3\\_3](#).
- 90 Gerth Stølting Brodal and Rolf Fagerberg, *Cache Oblivious Distribution Sweeping*. In *Proc. 29th International Colloquium on Automata, Languages, and Programming*, Volume 2380 of Lecture Notes in Computer Science, pages 426-438. Springer Verlag, Berlin, 2002, doi: [10.1007/3-540-45465-9\\_37](#).
- 91 Gerth Stølting Brodal, Rune Bang Lyngsø, Anna Östlin and Christian Nørgaard Storm Pedersen, *Solving the String Statistics Problem in Time  $O(n \log n)$* . In *Proc. 29th International Colloquium on Automata, Languages, and Programming*, Volume 2380 of Lecture Notes in Computer Science, pages 728-739. Springer Verlag, Berlin, 2002, doi: [10.1007/3-540-45465-9\\_62](#).
- (34) Gerth Stølting Brodal, George Lagogiannis, Christos Makris, Athanasios Tsakalidis and Kostas Tsichlas, *Optimal Finger Search Trees in the Pointer Machine*. In *Proc. 34th Annual ACM Symposium on Theory of Computing*, pages 583-591, 2002, doi: [10.1145/509907.509991](#).
- 92 Gerth Stølting Brodal, Rolf Fagerberg and Riko Jacob, *Cache-Oblivious Search Trees via Binary Trees of Small Height*. In *Proc. 13th Annual ACM-SIAM Symposium on Discrete Algorithms*, pages 39-48, 2002, doi: [doi.acm.org/10.1145/545381.545386](#).
- 93 Gerth Stølting Brodal, Rolf Fagerberg, Christian Nørgaard Storm Pedersen and Anna Östlin, *The Complexity of Constructing Evolutionary Trees Using Experiments*. In *Proc. 28th International Colloquium on Automata, Languages, and Programming, Hersonissos, Crete, Greece, 8-12 July 2001*, Volume 2076 of Lecture Notes in Computer Science, pages 140-151. Springer Verlag, Berlin, 2001, doi: [10.1007/3-540-48224-5\\_12](#).
- (33) Gerth Stølting Brodal, Rolf Fagerberg and Christian Nørgaard Storm Pedersen, *Computing the Quartet Distance Between Evolutionary Trees in Time  $O(n \log^2 n)$* . In *Proc. 12th Annual International Symposium on Algorithms and Computation*, Volume 2223 of Lecture Notes in Computer Science, pages 731-742. Springer Verlag, Berlin, 2001 2001, doi: [10.1007/3-540-45678-3\\_62](#).
- 94 Stephen Alstrup, Gerth Stølting Brodal and Theis Rauhe, *Optimal Static Range Reporting in One Dimension*. In *Proc. 33rd Annual ACM Symposium on Theory of Computing*, pages 476-482, 2001, doi: [10.1145/380752.380842](#) (presentation pdf).
- 95 Gerth Stølting Brodal and Riko Jacob, *Dynamic Planar Convex Hull with Optimal Query Time and  $O(\log n \cdot \log \log n)$  Update Time*. In *Proc. 7th Scandinavian Workshop on Algorithm Theory, Bergen, Norway, 5-7 July 2000*, Volume 1851 of Lecture Notes in Computer Science, pages 57-70. Springer Verlag, Berlin, 2000, doi: [10.1007/3-540-44985-X\\_7](#).
- (32) Lars Arge, Gerth Stølting Brodal and Laura Toma, *On External Memory MST, SSSP and Multiway Planar Graph Separation*. In *Proc. 7th Scandinavian Workshop on Algorithm Theory, Bergen, Norway, 5-7 July 2000*, Volume 1851 of Lecture Notes in Computer Science, pages 433-447. Springer Verlag, Berlin, 2000, doi: [10.1007/3-540-44985-X\\_37](#).
- 96 Gerth Stølting Brodal and Christian Nørgaard Storm Pedersen, *Finding Maximal Quasiperiodicities in Strings*. In *Proc. 11th Annual Symposium on Combinatorial Pattern Matching, Montreal, Quebec, Canada, 21-23 June 2000*, Volume 1848 of Lecture Notes in Computer Science, pages 397-411. Springer Verlag, Berlin, 2000, doi: [10.1007/3-540-45123-4\\_33](#).
- 97 Stephen Alstrup, Gerth Stølting Brodal and Theis Rauhe, *New Data Structures for Orthogonal Range Searching*. In *Proc. 41st Annual Symposium on Foundations of Computer Science*, pages 198-207, 2000, doi: [10.1109/SFCS.2000.892088](#).
- 98 Stephen Alstrup, Gerth Stølting Brodal and Theis Rauhe, *Pattern Matching in Dynamic Texts*. In *Proc. 11th Annual ACM-SIAM Symposium on Discrete Algorithms*, pages 819-828, 2000, doi: [doi.acm.org/10.1145/338219.338645](#).
- 99 Gerth Stølting Brodal and Rolf Fagerberg, *Dynamic Representations of Sparse Graphs*. In *Proc. 6th International Workshop on Algorithms and Data Structures, Vancouver, Canada, 11-14 August*

- 1999, Volume 1663 of Lecture Notes in Computer Science, pages 342-351. Springer Verlag, Berlin, 1999, doi: [10.1007/3-540-48447-7\\_34](https://doi.org/10.1007/3-540-48447-7_34).
- (38) Gerth Stølting Brodal, Rune Bang Lyngsø, Christian Nørgaard Storm Pedersen and Jens Stoye, *Finding Maximal Pairs with Bounded Gap*. In *Proc. 10th Annual Symposium on Combinatorial Pattern Matching, Warwick, UK, 22-24 June 1999*, Volume 1645 of Lecture Notes in Computer Science, pages 134-149. Springer Verlag, Berlin, 1999, doi: [10.1007/3-540-48452-3\\_11](https://doi.org/10.1007/3-540-48452-3_11).
- 100 Pankaj K. Agarwal, Lars Arge, Gerth Stølting Brodal and Jeff Vitter, *I/O-Efficient Dynamic Point Location in Monotone Subdivisions*. In *Proc. 10th Annual ACM-SIAM Symposium on Discrete Algorithms*, pages 11-20, 1999, doi: [doi.acm.org/10.1145/314500.314525](https://doi.org/doi.acm.org/10.1145/314500.314525).
- 101 Gerth Stølting Brodal and Jyrki Katajainen, *Worst-Case Efficient External-Memory Priority Queues*. In *Proc. 6th Scandinavian Workshop on Algorithm Theory, Stockholm, Sweden, 8-10 July 1998*, Volume 1432 of Lecture Notes in Computer Science, pages 107-118. Springer Verlag, Berlin, 1998, doi: [10.1007/BFb0054359](https://doi.org/10.1007/BFb0054359) (presentation pdf).
- (36) Gerth Stølting Brodal and M. Cristina Pinotti, *Comparator Networks for Binary Heap Construction*. In *Proc. 6th Scandinavian Workshop on Algorithm Theory, Stockholm, Sweden, 8-10 July 1998*, Volume 1432 of Lecture Notes in Computer Science, pages 158-168. Springer Verlag, Berlin, 1998, doi: [10.1007/BFb0054364](https://doi.org/10.1007/BFb0054364) (presentation pdf).
- 102 Gerth Stølting Brodal, *Finger Search Trees with Constant Insertion Time*. In *Proc. 9th Annual ACM-SIAM Symposium on Discrete Algorithms*, pages 540-549, 1998, doi: [doi.acm.org/10.1145/314613.314842](https://doi.org/doi.acm.org/10.1145/314613.314842) (presentation pdf).
- (40) Gerth Stølting Brodal, Jesper Larsson Träff and Christos D. Zaroliagis, *A Parallel Priority Data Structure with Applications*. In *Proc. 11th International Parallel Processing Symposium*, Dror G. Feitelson and Larry Rudolph (Edt.), pages 689-693. IEEE Comput. Soc. Press, Los Alamitos, USA, 1997, doi: [10.1109/IPPS.1997.580979](https://doi.org/10.1109/IPPS.1997.580979).
- 103 Gerth Stølting Brodal, *Predecessor Queries in Dynamic Integer Sets*. In *Proc. 14th Annual Symposium on Theoretical Aspects of Computer Science*, Volume 1200 of Lecture Notes in Computer Science, pages 21-32. Springer Verlag, Berlin, 1997, doi: [10.1007/BFb0023445](https://doi.org/10.1007/BFb0023445) (presentation pdf).
- (41) Gerth Stølting Brodal, Shiva Chaudhuri and Jaikumar Radhakrishnan, *The Randomized Complexity of Maintaining the Minimum*. In *Proc. 5th Scandinavian Workshop on Algorithm Theory, Reykjavik, Iceland, 3-5 July 1996*, Volume 1097 of Lecture Notes in Computer Science, pages 4-15. Springer Verlag, Berlin, 1996, doi: [10.1007/3-540-61422-2\\_116](https://doi.org/10.1007/3-540-61422-2_116) (presentation pdf).
- (39) Gerth Stølting Brodal, *Priority Queues on Parallel Machines*. In *Proc. 5th Scandinavian Workshop on Algorithm Theory, Reykjavik, Iceland, 3-5 July 1996*, Volume 1097 of Lecture Notes in Computer Science, pages 416-427. Springer Verlag, Berlin, 1996, doi: [10.1007/3-540-61422-2\\_150](https://doi.org/10.1007/3-540-61422-2_150) (presentation pdf).
- 104 Gerth Stølting Brodal and Leszek Gąsieniec, *Approximate Dictionary Queries*. In *Proc. 7th Annual Symposium on Combinatorial Pattern Matching, Laguna Beach, CA, 10-12 June 1996*, Volume 1075 of Lecture Notes in Computer Science, pages 65-74. Springer Verlag, Berlin, 1996, doi: [10.1007/3-540-61258-0\\_6](https://doi.org/10.1007/3-540-61258-0_6).
- 105 Gerth Stølting Brodal, *Worst-Case Efficient Priority Queues*. In *Proc. 7th Annual ACM-SIAM Symposium on Discrete Algorithms*, pages 52-58, 1996, doi: [doi.acm.org/10.1145/313852.313883](https://doi.org/doi.acm.org/10.1145/313852.313883) (presentation pdf).
- 106 Gerth Stølting Brodal, *Fast Meldable Priority Queues*. In *Proc. 4th International Workshop on Algorithms and Data Structures*, Volume 955 of Lecture Notes in Computer Science, pages 282-290. Springer Verlag, Berlin, 1995, doi: [10.1007/3-540-60220-8\\_70](https://doi.org/10.1007/3-540-60220-8_70) (presentation pdf).

## Technical Reports

- 107 Gerth Stølting Brodal, *Soft Sequence Heaps*. Technical report 2008.05398, 16 pages. ArXiv.org, August 2020, doi: [arxiv.org/abs/2008.05398](https://arxiv.org/abs/2008.05398).
- (88) Riko Jacob and Gerth Stølting Brodal, *Dynamic Planar Convex Hull*. Technical report 1902.11169, 87 pages. ArXiv.org, February 2019, doi: [arxiv.org/abs/1902.11169](https://arxiv.org/abs/1902.11169).
- (46) Gerth Stølting Brodal and Konstantinos Mampentzidis, *Cache Oblivious Algorithms for Computing the Triplet Distance Between Trees*. Technical report 1706.10284, 16 pages. ArXiv.org, June 2017,

- doi: [arxiv.org/abs/1706.10284](https://arxiv.org/abs/1706.10284).
- (47) Gerth Stølting Brodal, *External Memory Three-Sided Range Reporting and Top-k Queries with Sublogarithmic Updates*. Technical report 1509.08240, 16 pages. ArXiv.org, September 2015, doi: [arxiv.org/abs/1509.08240](https://arxiv.org/abs/1509.08240).
- (48) Gerth Stølting Brodal, Jesper Sindahl Nielsen and Jakob Truelsen, *Strictly Implicit Priority Queues: On the Number of Moves and Worst-Case Time*. Technical report 1505.00147, 15 pages. ArXiv.org, May 2015, doi: [arxiv.org/abs/1505.00147](https://arxiv.org/abs/1505.00147).
- (50) Gerth Stølting Brodal and Kasper Green Larsen, *Optimal Planar Orthogonal Skyline Counting Queries*. Technical report 1304.7959, 17 pages. ArXiv.org, April 2013, doi: [arxiv.org/abs/1304.7959](https://arxiv.org/abs/1304.7959).
- (16) Gerth Stølting Brodal, Alexis C. Kaporis, Apostolos Papadopoulos, Spyros Sioutas, Konstantinos Tsakalidis and Kostas Tsichlas, *Dynamic 3-sided Planar Range Queries with Expected Doubly Logarithmic Time*. Technical report 1201.2702, 29 pages. ArXiv.org, January 2012, doi: [arxiv.org/abs/1201.2702](https://arxiv.org/abs/1201.2702).
- (58) Gerth Stølting Brodal and Casper Kejlberg-Rasmussen, *Cache-Oblivious Implicit Predecessor Dictionaries with the Working Set Property*. Technical report 1112.5472, 16 pages. ArXiv.org, December 2011, doi: [arxiv.org/abs/1112.5472](https://arxiv.org/abs/1112.5472).
- (13) Gerth Stølting Brodal, Spyros Sioutas, Kostas Tsichlas and Christos D. Zaroliagis, *D<sup>2</sup>-Tree: A New Overlay with Deterministic Bounds*. Technical report 1009.3134, 21 pages. ArXiv.org, September 2010, doi: [arxiv.org/abs/1009.3134](https://arxiv.org/abs/1009.3134).
- (90) Gerth Stølting Brodal and Rolf Fagerberg, *Cache Oblivious Distribution Sweeping*. Technical report BRICS-RS-02-18, 21 pages. BRICS, Department of Computer Science, Aarhus University, 2009.
- (70) Gerth Stølting Brodal, Rolf Fagerberg, Allan Grønlund Jørgensen, Gabriel Moruz and Thomas Mølhave, *Optimal Resilient Dynamic Dictionaries*. Technical report DAIMI PB-585, 14 pages. Department of Computer Science, Aarhus University, November 2007.
- (23) Gerth Stølting Brodal, Kanela Kaligosi, Irit Katriel and Martin Kutz, *Faster Algorithms for Computing Longest Common Increasing Subsequences*. Technical report BRICS-RS-05-37, 16 pages. BRICS, Department of Computer Science, Aarhus University, December 2005.
- (27) Gerth Stølting Brodal, Rolf Fagerberg and Gabriel Moruz, *On the Adaptiveness of Quicksort*. Technical report BRICS-RS-04-27, 23 pages. BRICS, Department of Computer Science, Aarhus University, December 2004.
- (82) Gerth Stølting Brodal, Rolf Fagerberg, Ulrich Meyer and Norbert Zeh, *Cache-Oblivious Data Structures and Algorithms for Undirected Breadth-First Search and Shortest Paths*. Technical report BRICS-RS-04-2, 19 pages. BRICS, Department of Computer Science, Aarhus University, January 2004.
- (30) Gerth Stølting Brodal, Rolf Fagerberg, Thomas Mailund, Christian Nørgaard Storm Pedersen and Derek Phillips, *Speeding Up Neighbour-Joining Tree Construction*. Technical report ALCOMFT-TR-03-102, 9 pages. ALCOM-FT, November 2003.
- (29) Gerth Stølting Brodal, Rolf Fagerberg and Kristoffer Vinther, *Engineering a Cache-Oblivious Sorting Algorithm*. Technical report ALCOMFT-TR-03-101, 16 pages. ALCOM-FT, November 2003.
- (84) Gerth Stølting Brodal, Rolf Fagerberg, Anna Östlin, Christian Nørgaard Storm Pedersen and S. Srinivasa Rao, *Computing Refined Buneman Trees in Cubic Time*. Technical report ALCOMFT-TR-03-73, 11 pages. ALCOM-FT, November 2003.
- (85) Gerth Stølting Brodal and Rolf Fagerberg, *On the Limits of Cache-Obliviousness*. Technical report ALCOMFT-TR-03-74, 17 pages. ALCOM-FT, November 2003.
- (86) Gerth Stølting Brodal and Rolf Fagerberg, *Lower Bounds for External Memory Dictionaries*. Technical report ALCOMFT-TR-03-75, 13 pages. ALCOM-FT, November 2003.
- (24) Michael A. Bender, Gerth Stølting Brodal, Rolf Fagerberg, Dongdong Ge, Simai He, Haodong Hu, John Iacono and Alejandro López-Ortiz, *The Cost of Cache-Oblivious Searching*. Technical report ALCOMFT-TR-03-76, 18 pages. ALCOM-FT, November 2003.
- (31) Gerth Stølting Brodal, Erik D. Demaine and J. Ian Munro, *Fast Allocation and Deallocation with an Improved Buddy System*. Technical report ALCOMFT-TR-03-3, 15 pages. ALCOM-FT, May



- 2003.
- (84) Gerth Stølting Brodal, Rolf Fagerberg, Anna Östlin, Christian Nørgaard Storm Pedersen and S. Srinivasa Rao, *Computing Refined Buneman Trees in Cubic Time*. Technical report BRICS-RS-02-51, 14 pages. BRICS, Department of Computer Science, Aarhus University, December 2002.
  - (87) Gerth Stølting Brodal and Rolf Fagerberg, *Funnel Heap - A Cache Oblivious Priority Queue*. Technical report ALCOMFT-TR-02-136, 11 pages. ALCOM-FT, June 2002.
  - (34) Gerth Stølting Brodal, George Lagogiannis, Christos Makris, Athanasios Tsakalidis and Kostas Tsichlas, *Optimal Finger Search Trees in the Pointer Machine*. Technical report ALCOMFT-TR-02-77, 17 pages. ALCOM-FT, May 2002.
  - (89) Stephen Alstrup, Gerth Stølting Brodal, Inge Li Gørtz and Theis Rauhe, *Time and Space Efficient Multi-Method Dispatching*. Technical report ALCOMFT-TR-02-76, 9 pages. ALCOM-FT, May 2002.
  - (91) Gerth Stølting Brodal, Rune Bang Lyngsø, Anna Östlin and Christian Nørgaard Storm Pedersen, *Solving the String Statistics Problem in Time  $O(n \log n)$* . Technical report BRICS-RS-02-13, 28 pages. BRICS, Department of Computer Science, Aarhus University, October 2002.
  - (91) Gerth Stølting Brodal, Rune Bang Lyngsø, Anna Östlin and Christian Nørgaard Storm Pedersen, *Solving the String Statistics Problem in Time  $O(n \log n)$* . Technical report ALCOMFT-TR-02-55, 12 pages. ALCOM-FT, May 2002.
  - (33) Gerth Stølting Brodal, Rolf Fagerberg and Christian Nørgaard Storm Pedersen, *Computing the Quartet Distance Between Evolutionary Trees in Time  $O(n \log n)$* . Technical report ALCOMFT-TR-02-54, 15 pages. ALCOM-FT, May 2002.
  - (92) Gerth Stølting Brodal, Rolf Fagerberg and Riko Jacob, *Cache-Oblivious Search Trees via Trees of Small Height*. Technical report ALCOMFT-TR-02-53, 20 pages. ALCOM-FT, May 2002.
  - (90) Gerth Stølting Brodal and Rolf Fagerberg, *Cache Oblivious Distribution Sweeping*. Technical report ALCOMFT-TR-02-52, 22 pages. ALCOM-FT, May 2002.
  - (92) Gerth Stølting Brodal, Rolf Fagerberg and Riko Jacob, *Cache Oblivious Search Trees via Binary Trees of Small Height*. Technical report BRICS-RS-01-36, 20 pages. BRICS, Department of Computer Science, Aarhus University, October 2001.
  - (93) Gerth Stølting Brodal, Rolf Fagerberg, Christian Nørgaard Storm Pedersen and Anna Östlin, *The Complexity of Constructing Evolutionary Trees Using Experiments*. Technical report BRICS-RS-01-1, 27 pages. BRICS, Department of Computer Science, Aarhus University, July 2001.
  - (83) Gerth Stølting Brodal and Riko Jacob, *Time-dependent networks as models to achieve fast exact time-table queries*. Technical report ALCOMFT-TR-01-176, 12 pages. ALCOM-FT, September 2001.
  - (33) Gerth Stølting Brodal, Rolf Fagerberg and Christian Nørgaard Storm Pedersen, *Computing the Quartet Distance Between Evolutionary Trees in Time  $O(n \log^2 n)$* . Technical report ALCOMFT-TR-01-131, 12 pages. ALCOM-FT, May 2001.
  - (93) Gerth Stølting Brodal, Rolf Fagerberg, Christian Nørgaard Storm Pedersen and Anna Östlin, *The Complexity of Constructing Evolutionary Trees Using Experiments*. Technical report ALCOMFT-TR-01-130, 25 pages. ALCOM-FT, May 2001.
  - (94) Stephen Alstrup, Gerth Stølting Brodal and Theis Rauhe, *Optimal Static Range Reporting in One Dimension*. Technical report ALCOMFT-TR-01-53, 13 pages. ALCOM-FT, May 2001.
  - (32) Lars Arge, Gerth Stølting Brodal and Laura Toma, *On External Memory MST, SSSP and Multi-way Planar Graph Separation*. Technical report ALCOMFT-TR-01-38, 14 pages. ALCOM-FT, May 2001.
  - (97) Stephen Alstrup, Gerth Stølting Brodal and Theis Rauhe, *New Data Structures for Orthogonal Range Searching*. Technical report ALCOMFT-TR-01-35, 17 pages. ALCOM-FT, May 2001.
  - (95) Gerth Stølting Brodal and Riko Jacob, *Dynamic Planar Convex Hull with Optimal Query Time and  $O(\log n \cdot \log \log n)$  Update Time*. Technical report ALCOMFT-TR-01-34, 14 pages. ALCOM-FT, May 2001.
  - (89) Stephen Alstrup, Gerth Stølting Brodal, Inge Li Gørtz and Theis Rauhe, *Time and Space Efficient Multi-Method Dispatching*. Technical report ITU-TR-2001-8, 13 pages. The IT University of Copenhagen, October 2001.

- (94) [Stephen Alstrup](#), Gerth Stølting Brodal and [Theis Rauhe](#), *Optimal Static Range Reporting in One Dimension*. Technical report ITU-TR-2000-3, 12 pages. The IT University of Copenhagen, November 2000.
- (37) Gerth Stølting Brodal and [Venkatesh Srinivasan](#), *Improved Bounds for Dictionary Look-up with One Error*. Technical report BRICS-RS-99-50, 5 pages. BRICS, Department of Computer Science, Aarhus University, December 1999.
- (96) Gerth Stølting Brodal and [Christian Nørgaard Storm Pedersen](#), *Finding Maximal Quasiperiodicities in Strings*. Technical report BRICS-RS-99-25, 20 pages. BRICS, Department of Computer Science, Aarhus University, September 1999.
- (38) Gerth Stølting Brodal, [Rune Bang Lyngsø](#), [Christian Nørgaard Storm Pedersen](#) and [Jens Stoye](#), *Finding Maximal Pairs with Bounded Gap*. Technical report BRICS-RS-99-12, 31 pages. BRICS, Department of Computer Science, Aarhus University, April 1999.
- (98) [Stephen Alstrup](#), Gerth Stølting Brodal and [Theis Rauhe](#), *Dynamic Pattern Matching*. Technical report DIKU Report 98/27, 16 pages. Department of Computer Science, University of Copenhagen, 1998.
- (36) Gerth Stølting Brodal and [M. Cristina Pinotti](#), *Comparator Networks for Binary Heap Construction*. *Im Stadtwald, D-66123 Saarbrücken, Germany*, technical report MPI-I-98-1-002, 11 pages. Max-Planck-Institut für Informatik, Im Stadtwald, D-66123 Saarbrücken, Germany, January 1998.
- (101) Gerth Stølting Brodal and [Jyrki Katajainen](#), *Worst-Case Efficient External-Memory Priority Queues*. Technical report DIKU Report 97/25, 16 pages. Department of Computer Science, University of Copenhagen, October 1997.
- (102) Gerth Stølting Brodal, *Finger Search Trees with Constant Insertion Time*. *Im Stadtwald, D-66123 Saarbrücken, Germany*, technical report MPI-I-97-1-020, 17 pages. Max-Planck-Institut für Informatik, Im Stadtwald, D-66123 Saarbrücken, Germany, September 1997.
- (40) Gerth Stølting Brodal, [Jesper Larsson Träff](#) and [Christos D. Zaroliagis](#), *A Parallel Priority Queue with Constant Time Operations*. *Im Stadtwald, D-66123 Saarbrücken, Germany*, technical report MPI-I-97-1-011, 19 pages. Max-Planck-Institut für Informatik, Im Stadtwald, D-66123 Saarbrücken, Germany, May 1997.
- 108 Gerth Stølting Brodal and [Sven Skyum](#), *The Complexity of Computing the  $k$ -ary Composition of a Binary Associative Operator*. Technical report BRICS-RS-96-42, 15 pages. BRICS, Department of Computer Science, Aarhus University, November 1996.
- (41) Gerth Stølting Brodal, [Shiva Chaudhuri](#) and [Jaikumar Radhakrishnan](#), *The Randomized Complexity of Maintaining the Minimum*. Technical report BRICS-RS-96-40, 20 pages. BRICS, Department of Computer Science, Aarhus University, November 1996.
- (41) Gerth Stølting Brodal, [Shiva Chaudhuri](#) and [Jaikumar Radhakrishnan](#), *The Randomized Complexity of Maintaining the Minimum*. Technical report MPI-I-96-1-014. Max-Planck-Institut für Informatik, May 1996.
- 109 Gerth Stølting Brodal and [Thore Husfeldt](#), *A Communication Complexity Proof that Symmetric Functions have Logarithmic Depth*. Technical report BRICS-RS-96-1, 3 pages. BRICS, Department of Computer Science, Aarhus University, January 1996.
- (43) Gerth Stølting Brodal and [Chris Okasaki](#), *Optimal Purely Functional Priority Queues*. Technical report BRICS-RS-96-37, 27 pages. BRICS, Department of Computer Science, Aarhus University, October 1996.
- (106) Gerth Stølting Brodal, *Fast Meldable Priority Queues*. Technical report BRICS-RS-95-12, 12 pages. BRICS, Department of Computer Science, Aarhus University, February 1995.
- (42) Gerth Stølting Brodal, *Partially Persistent Data Structures of Bounded Degree with Constant Update Time*. Technical report BRICS-RS-94-35, 24 pages. BRICS, Department of Computer Science, Aarhus University, November 1994.

## Theses

- 110 Gerth Stølting Brodal, *Worst Case Efficient Data Structures*. PhD Thesis, technical report BRICS-DS-97-1, x+121 pages. Department of Computer Science, Aarhus University, Denmark, January 1997 (presentation [pdf](#)).

- 111 Gerth Stølting Brodal, *Complexity of Data Structures*. Progress Report, 29 pages. Department of Computer Science, Aarhus University, Denmark, November 1994 (presentation [pdf](#)).

## Submissions

- 112 Gerth Stølting Brodal, *Priority Queues with Decreasing Keys*. Submitted to *5th SIAM Symposium on Simplicity in Algorithms (SOSA)*, 2022.
- 113 Gerth Stølting Brodal, [George Lagogiannis](#) and [Robert E. Tarjan](#), *Strict Fibonacci Heaps*. Submitted to *Transactions on Algorithms*.

## Coauthors

Peyman Afshani, Pankaj K. Agarwal, Stephen Alstrup, Lars Arge, Djamel Belazzougui, Michael A. Bender, Edvin Berglin, Andrej Brodnik, Shiva Chaudhuri, Pooya Davoodi, Erik D. Demaine, Rolf Fagerberg, Jeremy T. Fineman, Irene Finocchi, Dongdong Ge, Loukas Georgiadis, Beat Gfeller, Fabrizio Grandoni, Mark Greve, Leszek Gąsieniec, Inge Li Gørtz, David Hammer, Kristoffer A. Hansen, Simai He, Morten Kragelund Holt, Haodong Hu, Thore Husfeldt, John Iacono, Giuseppe Italiano, Riko Jacob, Jens Johansen, Allan Grønlund Jørgensen, Kanela Kaligosi, Alexis Kaporis, Alexis C. Kaporis, Jyrki Katajainen, Irit Katriel, Casper Kejlberg-Rasmussen, Lars Michael Kristensen, Martin Kutz, George Lagogiannis, Stefan Langerman, Kasper Green Larsen, Morten Laustsen, Moshe Lewenstein, Rune Bang Lyngsø, Alejandro López-Ortiz, Thomas Mailund, Christos Makris, Konstantinos Mampentzidis, Ulrich Meyer, Gabriel Moruz, J. Ian Munro, Thomas Mølhave, Andrei Negoescu, Jesper Sindahl Nielsen, Chris Okasaki, Vineet Pandey, Apostolos Papadopoulos, Christian Nørgaard Storm Pedersen, Manuel Penschuck, Derek Phillips, M. Cristina Pinotti, Jaikumar Radhakrishnan, Rajeev Raman, S. Srinivasa Rao, Theis Rauhe, Andreas Sand, Peter Sanders, Spyros Sioutas, Sven Skyum, Venkatesh Srinivasan, Martin Stissing, Jens Stoye, Robert E. Tarjan, Laura Toma, Hung Tran, Jakob Truelsen, Jesper Larsson Träff, Athanasios Tsakalidis, Konstantinos Tsakalidis, Kostas Tsichlas, Constantinos Tsirogiannis, Elias Vicari, Kristoffer Vinther, Jeff Vitter, Michael Westergaard, Christos D. Zaroliagis, Norbert Zeh, Anna Östlin.

## Program Committees

- 2022 *24th Workshop on Algorithm Engineering and Experiments (ALENEX)*. Alexandria, Virginia, USA, 9–10 Jan 2022.
- 2021 *29th Annual European Symposium on Algorithms (Track B - Algorithm Engineering) (ESA)*. Lisbon, Portugal, 6–8 Sep 2021.
- 2019 *30th International Workshop on Combinatorial Algorithms (IWOCA)*. Pisa, Italy, 23–25 Jul 2019.  
*46th International Colloquium on Automata, Languages, and Programming (ICALP)*. Patras, Greece, 8–12 Jul 2019.  
*36th Annual Symposium on Theoretical Aspects of Computer Science (STACS)*. Berlin, Germany, 13–16 Mar 2019.
- 2017 *43rd International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM)*. Limerick, Ireland, 16–20 Jan 2017.  
*28th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*. Barcelona, Spain, 16–19 Jan 2017.
- 2016 *18th Workshop on Algorithm Engineering and Experiments (ALENEX)*. Arlington, Virginia, USA, 10 Jan 2016.
- 2015 *26th International Workshop on Combinatorial Algorithms (IWOCA)*. Verona, Italy, 5–7 Oct 2015.  
*31st European Workshop on Computational Geometry (EuroCG)*. Ljubljana, Slovenia, 16–18 Mar 2015.
- 2014 *25th Annual International Symposium on Algorithms and Computation (ISAAC)*. Jeonju, Korea, 15–17 Dec 2014.  
*25th International Workshop on Combinatorial Algorithms (IWOCA)*. Duluth, Minnesota, USA, 15–17 Oct 2014.  
*6th Workshop on Massive Data Algorithmics (MASSIVE)*. Wroclaw, Poland, 11–11 Sep 2014.

- 39th International Symposium on Mathematical Foundations of Computer Science (MFCS)*. Budapest, Hungary, 25–29 Aug 2014.
- 41st International Colloquium on Automata, Languages, and Programming (ICALP)*. IT University of Copenhagen, Copenhagen, Denmark, 8–11 Jul 2014.
- 25th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*. Portland, Oregon, USA, 5–7 Jan 2014.
- 2013 *5th Workshop on Massive Data Algorithmics (MASSIVE)*. Sophia Antipolis, France, 5–5 Sep 2013.
- 19th International Symposium on Fundamentals of Computation Theory (FCT)*. Liverpool, United Kingdom, 19–23 Aug 2013.
- 24rd International Workshop on Combinatorial Algorithms (IWOCA)*. Rouen, Normandy, France, 10–12 Jul 2013.
- 7th International Conference on Language and Automata Theory and Applications (LATA)*. Bilbao, Spain, 2–5 Apr 2013.
- 2012 *4th Workshop on Massive Data Algorithmics (MASSIVE)*. Ljubljana, Slovenia, 13–13 Sep 2012.
- 23rd International Workshop on Combinatorial Algorithms (IWOCA)*. Kalasalingam University, Tamil Nadu, India, 19–21 Jul 2012.
- 14th Workshop on Algorithm Engineering and Experiments (ALENEX)*. Kyoto, Japan, 16 Jan 2012.
- 2011 *22nd International Workshop on Combinatorial Algorithms (IWOCA)*. University of Victoria, Victoria, British Columbia, Canada, 20–22 Jun 2011.
- 3rd Workshop on Massive Data Algorithmics (MASSIVE)*. Paris, France, 16–16 Jun 2011.
- 2010 *18th Annual European Symposium on Algorithms (ESA)*. Liverpool, UK, 6–8 Sep 2010.
- 21st International Workshop on Combinatorial Algorithms (IWOCA)*. King’s College London, UK, 26–28 Jul 2010.
- 2nd Workshop on Massive Data Algorithmics (MASSIVE)*. Snowbird, Utah, 17–17 Jun 2010.
- 12th Scandinavian Workshop on Algorithm Theory (SWAT)*. Bergen, Norway, Jun 2010.
- 9th Latin American Symposium on Theoretical Informatics (LATIN)*. Oaxaca, Mexico, 19–23 Apr 2010.
- 2009 *11th International Workshop on Algorithms and Data Structures (WADS)*. Banff, Alberta, Canada, 21–23 Aug 2009.
- 21st ACM Symposium on Parallelism in Algorithms and Architectures (SPAA)*. Calgary, Canada, Aug 2009.
- 36th International Colloquium on Automata, Languages and Programming (ICALP)*. Rhodes, Greece, 5–12 Jul 2009.
- Co-chair of program committee. *1st Workshop on Massive Data Algorithmics (MASSIVE)*. Aarhus, Denmark, 11–11 Jun 2009.
- 8th International Symposium on Experimental Algorithms (SEA)*. Dortmund, Germany, 3–6 Jun 2009.
- 2008 *7th International Workshop on Experimental Algorithms (WEA)*. Provincetown, Cape Cod, Massachusetts, USA, 30 May – 2008.
- 2007 *IEEE 2007 International Symposium on Parallel and Distributed Processing with Applications (ISPA)*. Niagara Falls, Ontario, Canada, 21–24 Aug 2007.
- 10th International Workshop on Algorithms and Data Structures (WADS)*. Halifax, Canada, 15–17 Aug 2007.
- International Workshop on Algorithmic Topics in Constraint Programming (cancelled) (ATCP)*. Wroclaw, Poland, 8 Jul 2007.
- 24th Annual Symposium on Theoretical Aspects of Computer Science (STACS)*. Aachen, Germany, 22–24 Feb 2007.
- 18th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*. New Orleans, Louisiana, USA, 7–9 Jan 2007.
- Co-chair of program committee. *9th Workshop on Algorithm Engineering and Experiments*



- (*ALENEX*). New Orleans, Louisiana, USA, 6 Jan 2007.
- 2006 *13th Symposium on String Processing and Information Retrieval (SPIRE)* (*SPIRE*). Glasgow, Scotland, 11–13 Oct 2006.  
*9th Scandinavian Workshop on Algorithm Theory (SWAT)*. Riga, Latvia, 6–8 Jul 2006.
- 2005 *37th Annual ACM Symposium on Theory of Computing (STOC)*. Baltimore, Maryland, USA, 22–24 May 2005.  
*4th International Workshop on Efficient and Experimental Algorithms (WEA)*. Santorini Island, Greece, 10–13 May 2005.
- 2004 *24th Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS)*. Chennai, India, 16–18 Dec 2004.  
 Co-chair of program committee. *13th Annual European Symposium on Algorithms – Engineering and Application Track (ESA)*. Mallorca, Spain, Oct 2004.  
*31st International Colloquium on Automata, Languages and Programming (ICALP)*. Turku, Finland, 12–16 Jul 2004.  
*15th Annual Symposium on Combinatorial Pattern Matching (CPM)*. Istanbul, Turkey, 5–7 Jul 2004.  
*3rd International Conference on Fun With Algorithms (FUN)*. Isola d’Elba, Tuscany, Italy, 26–28 May 2004.  
*6th Latin American Symposium on Theoretical Informatics (LATIN)*. Buenos Aires, Argentina, 5–9 Apr 2004.  
*15th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*. New Orleans, Louisiana, USA, 11–13 Jan 2004.
- 2003 *8th International Workshop on Algorithms and Data Structures (WADS)*. Ottawa, Canada, 30 Jul–1 Aug 2003.  
 Co-chair of program committee. *Workshop on Algorithms for Massive Data Sets (cancelled) (MAS-SIVE)*. Eindhoven, The Netherlands, 29 Jun 2003.  
*11th Euromicro Conference on Parallel Distributed and Networking based Processing, Special session on Memory Hierarchies (PDP)*. Genoa, Italy, 5–7 Feb 2003.  
*5th Workshop on Algorithm Engineering and Experiments (ALENEX)*. Baltimore, MD, USA, 10–11 Jan 2003.
- 2001 *9th Annual European Symposium on Algorithms (ESA)*. Aarhus, Denmark, 28–31 Aug 2001.
- 1999 *Workshop on Algorithmic Aspects of Advanced Programming Languages (WAAAPL)*. Paris, France, 30 Sep 1999.

## Invited Speaker

- Oct 2021 In Memoriam - Lars Arge. *Lars Arge Memorial Symposium*. Aarhus University, Aarhus, Denmark, 6 Oct 2021 (presentation [pdf](#), [pptx](#)).
- Jan 2021 In Memoriam - Lars Arge. *23rd Workshop on Algorithm Engineering and Experiments (ALENEX)*. Virtual conference. Originally scheduled in Alexandria, Virginia, USA, 11 Jan 2021 (presentation [pdf](#), [pptx](#), [mp4](#)).
- Aug 2008 Lectures on lower bounds and string algorithms. *MADALGO Summer School on Cache Oblivious Algorithms*. MADALGO, Aarhus University, Denmark, 17–21 Aug 2008.
- Jun 2008 Word RAM algorithms. *International PhD School in Algorithms for Advanced Processor Architectures (AFAPA)*. IT University of Copenhagen, Denmark, 9–12 Jun 2008 (presentation [pdf](#), [pptx](#)).
- Jul 2004 *Cache-Oblivious Algorithms and Data Structures*. *9th Scandinavian Workshop on Algorithm Theory (SWAT)*. Louisiana Museum of Modern Art, Humlebæk, Denmark, 8–10 Jul 2004 (presentation [pdf](#)).
- Dec 1999 Regularities in Sequences. *Workshop on Advances in Data Structures, preworkshop of the 19th Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS)*. Chennai, India, 11–12 Dec 1999 (presentation [pdf](#)).

## Scientific visits

Jun 2013	Riko Jacob. ETH Zürich, Zürich, Switzerland.
Nov 2012	Riko Jacob. ETH Zürich, Zürich, Switzerland.
Nov 2011	Andy Brodtknik. University of Primorska and University of Ljubljana, Koper and Ljubljana, Slovenia.
Nov 2009	Riko Jacob. Technische Universität München, Munich, Germany.
May 2002	Michiel Smid. School of Computer Science, Carleton University, Ottawa, Ontario, Canada.
Oct 2001	Athanasios K. Tsakalidis. Computer Technology Institute, Patras, Greece.
Jan 1999	Lars Arge. Department of Computer Science, Duke University, Durham, North Carolina, USA.
Jan 1999	Jyrki Katajainen. Department of Computer Science, University of Copenhagen, Copenhagen, Denmark.
May 1998	Ian Munro. Department of Computer Science, University of Waterloo, Waterloo, Ontario, Canada.
May 1998	Lars Arge. Department of Computer Science, Duke University, Durham, North Carolina, USA.
Nov 1997	M. Cristina Pinotti. Istituto di Elaborazione della Informazione, CNR, Pisa, Italy.
Jan 1996	Haim Kaplan. Princeton University/DIMACS, Princeton, NJ, USA.
Sep 1995 – May 1996	Kurt Mehlhorn. Max-Planck-Institut für Informatik, Saarbrücken, Germany.
Aug 1995	Peter Bro Miltersen. Toronto University, Toronto, Ontario, Canada.

## Conference and Workshop Participation

Oct 2021	In Memoriam - Lars Arge. <i>Lars Arge Memorial Symposium</i> . Aarhus University, Aarhus, Denmark, 6 Oct 2021 (presentation <a href="#">pdf</a> , <a href="#">pptx</a> ).
Jun 2021	<i>20th International Symposium on Experimental Algorithms (SEA)</i> . Virtual conference. Originally scheduled in Université Côte d’Azur, Valrose, France, 7–9 Jun 2021.
Jan 2021	In Memoriam - Lars Arge. <i>23rd Workshop on Algorithm Engineering and Experiments (ALENEX)</i> . Virtual conference. Originally scheduled in Alexandria, Virginia, USA, 11 Jan 2021 (presentation <a href="#">pdf</a> , <a href="#">pptx</a> , <a href="#">mp4</a> ).
Jan 2021	<i>32nd Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)</i> . Virtual conference. Originally scheduled in Alexandria, Virginia, USA, 10–13 Jan 2021.
Jan 2020	<i>31st Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)</i> . Salt Lake City, Utah, USA, 5–8 Jan 2020.
Dec 2019	<i>2nd Hawaii Workshop on Parallel Algorithms and Data Structures (ALGOPARC)</i> . Honolulu, Hawaii, USA, 9–13 Dec 2019.
Jan – Feb 2019	<i>Dagstuhl Seminar on “Data Structures for the Cloud and External Memory Data” (co-organizer)</i> . Dagstuhl, Germany, 27 Jan – 1 Feb 2019.
Jan 2019	<i>30th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)</i> . San Diego, California, USA, 6–9 Jan 2019.
Aug 2018	<i>26th Annual European Symposium on Algorithms (ALGO 2018) (ESA)</i> . Helsinki, Finland, 19–24 Aug 2018.
Jan 2018	<i>29th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)</i> . New Orleans, Louisiana, USA, 7–10 Jan 2018.
Nov 2017	<i>Searching in Trees. Workshop on The Art of Data Structures in honor of Prof. Athanasios Tsakalidis (picture of participants)</i> . University of Patras, Patras, Greece, 7 Nov 2017 (presentation <a href="#">pdf</a> , <a href="#">pptx</a> ).
Sep 2017	<i>25th Annual European Symposium on Algorithms (ALGO 2017) (ESA)</i> . Vienna, Austria,

- 3–8 Sep 2017.
- Jan 2017 *28th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*. Barcelona, Spain, 16–19 Jan 2017.
- Aug 2016 *8th Workshop on Massive Data Algorithmics (MASSIVE)*. Aarhus, Denmark, 23 Aug 2016 (presentation [pdf](#), [pptx](#)).
- Feb 2016 *33rd Annual Symposium on Theoretical Aspects of Computer Science (STACS)*. Orléans, France, 17–20 Feb 2016 (presentation [pdf](#), [pptx](#)).
- Jan 2016 *27th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*. Washington, DC, USA, 10–12 Jan 2016.
- Sep–Oct 2014 *Algorithms for Big Data*. Goethe University, Frankfurt am Main, Germany, 29 Sep–1 Oct 2014.
- Sep 2014 *6th Workshop on Massive Data Algorithmics (MASSIVE)*. Wrocław, Poland, 11 Sep 2014.
- Sep 2014 *22nd Annual European Symposium on Algorithms (ESA)*. Wrocław, Poland, 8–12 Sep 2014.
- Jul 2014 *14th Scandinavian Workshop on Algorithm Theory (SWAT)*. Copenhagen, Denmark, 2–4 Jul 2014 (presentation [pdf](#), [pptx](#)).
- Jan 2014 *25th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*. Portland, Oregon, USA, 4–6 Jan 2014.
- Sep 2013 *Dagstuhl Seminar on “Algorithm Engineering”*. Dagstuhl, Germany, 22–27 Sep 2013.
- Sep 2013 *5th Workshop on Massive Data Algorithmics (MASSIVE)*. Inria, Sophia Antipolis, France, 5 Sep 2013.
- Sep 2013 *21st Annual European Symposium on Algorithms (ESA)*. Inria, Sophia Antipolis, France, 2–4 Sep 2013 (presentation [pdf](#), [pptx](#)).
- Aug 2013 *(A Survey on) Priority Queues. Conference on Space Efficient Data Structures, Streams and Algorithms – In Honor of J. Ian Munro on the Occasion of His 66th Birthday (IanFest)*. University of Waterloo, Waterloo, Ontario, Canada, 15–16 Aug 2013 (presentation [pdf](#), [pptx](#)).
- Aug 2013 *13th International Workshop on Algorithms and Data Structures (WADS)*. University of Western Ontario, London, Ontario, Canada, 12–14 Aug 2013.
- Jan 2013 *24th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*. New Orleans, Louisiana, USA, 6–8 Jan 2013 (presentation [pdf](#), [pptx](#)).
- Sep 2012 *4th Workshop on Massive Data Algorithmics (MASSIVE)*. Ljubljana, Slovenia, 13 Sep 2012 (presentation [pdf](#), [pptx](#)).
- Sep 2012 *20th Annual European Symposium on Algorithms (ESA)*. Ljubljana, Slovenia, 10–12 Sep 2012.
- May 2012 *44th Annual ACM Symposium on Theory of Computing (STOC)*. New York, New York, USA, 19–22 May 2012 (presentation [pdf](#), [pptx](#)).
- Jan 2012 *23rd Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*. Kyoto, Japan, 17–19 Jan 2012 (presentation [pdf](#), [pptx](#)).
- Jan 2012 *14th Workshop on Algorithm Engineering and Experiments (ALENEX)*. Kyoto, Japan, 16 Jan 2012.
- Aug 2011 *12th International Workshop on Algorithms and Data Structures (WADS)*. Polytechnic Institute of New York University, Brooklyn, NY, USA, 15–17 Aug 2011.
- Jun 2011 *3rd Workshop on Massive Data Algorithmics (MASSIVE)*. Paris, France, 16 Jun 2011.
- Jan 2011 *22nd Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*. San Francisco, CA, USA, 23–25 Jan 2011.
- Jan 2011 *13th Workshop on Algorithm Engineering and Experiments (ALENEX)*. San Francisco, CA, USA, 22 Jan 2011.
- Sep 2010 *18th Annual European Symposium on Algorithms (ESA)*. Liverpool, United Kingdom, 6–8 Sep 2010 (presentation [pdf](#), [pptx](#)).
- Jun 2010 *2nd Workshop on Massive Data Algorithmics (MASSIVE)*. Snowbird, Utah, USA, 17 Jun 2010 (presentation [pdf](#), [pptx](#)).

- Jan 2010 *21st Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*. Austin, TX, USA, 17–19 Jan 2010.
- Jan 2010 *11th Workshop on Algorithm Engineering and Experiments (ALENEX)*. Austin, TX, USA, 16–16 Jan 2010.
- Sep 2009 *17th Annual European Symposium on Algorithms (ESA)*. Copenhagen, Denmark, 7–9 Sep 2009.
- Jun 2009 *Workshop on Massive Data Algorithmics (MASSIVE)*. Aarhus, Denmark, 11 Jun 2009.
- Jun 2009 *25th Annual ACM Symposium on Computational Geometry (SoCG)*. Aarhus, Denmark, 8–10 Jun 2009.
- Mar 2009 *Cache-Oblivious Algorithms A Unified Approach to Hierarchical Memory Algorithms. Current Trends in Algorithms, Complexity Theory, and Cryptography (CTACC)*. Tsinghua University, Beijing, China, 22–22 Mar 2009 (presentation [pdf](#), [pptx](#)).
- Aug 2008 Lectures on lower bounds and string algorithms. *MADALGO Summer School on Cache Oblivious Algorithms*. MADALGO, Aarhus University, Denmark, 17–21 Aug 2008.
- Jun 2008 Word RAM algorithms. *International PhD School in Algorithms for Advanced Processor Architectures (AFAPA)*. IT University of Copenhagen, Denmark, 9–12 Jun 2008 (presentation [pdf](#), [pptx](#)).
- Jan 2008 *19th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*. San Francisco, CA, USA, 20–22 Jan 2008.
- Jan 2008 *10th Workshop on Algorithm Engineering and Experiments (ALENEX)*. San Francisco, CA, USA, 19–19 Jan 2008.
- Sep–Oct 2007 *3rd Bertinoro Workshop on Algorithms and Data Structures (ADS)*. Bertinoro, Forlì, Italy, 30 Sep–5 Oct 2007 (presentation [pdf](#), [ppt](#)).
- Aug 2007 *32nd International Symposium on Mathematical Foundations of Computer Science (MFCS)*. Cesky Krumlov, Czech Republic, 26–31 Aug 2007 (presentation [pdf](#), [ppt](#)).
- Jan 2007 *18th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*. New Orleans, LA, USA, 7–7 Jan 2007.
- Jan 2007 *9th Workshop on Algorithm Engineering and Experiments (ALENEX)*. New Orleans, LA, USA, 6 Jan 2007.
- Sep 2006 *14th Annual European Symposium on Algorithms (ESA)*. Zürich, Switzerland, 11–13 Sep 2006 (presentation [pdf](#), [ppt](#)).
- Jul 2006 *10th Scandinavian Workshop on Algorithm Theory (SWAT)*. Riga, Latvia, 6–8 Jul 2006.
- Jun 2006 *Workshop on Space-Conscious Algorithms (Bertinoro06)*. Bertinoro, Forlì, Italy, 10–15 Jun 2006 (presentation [pdf](#)).
- Jan 2006 *17th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*. Miami, Florida, USA, 22–24 Jan 2006 (presentation [pdf](#)).
- Jan 2006 *8th Workshop on Algorithm Engineering and Experiments (ALENEX)*. Miami, Florida, USA, 21 Jan 2006.
- Oct 2005 *13th Annual European Symposium on Algorithms (ALGO 2005) (ESA)*. Palma de Mallorca, Mallorca, Spain, 3–6 Oct 2005.
- May–Jun 2005 *Algorithms and Data Structures (ADS)*. Bertinoro, Forlì, Italy, 29 May–4 Jun 2005 (presentation [pdf](#)).
- Jan 2005 *16th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*. Vancouver, British Columbia, Canada, 23–25 Jan 2005.
- Sep 2004 *12th Annual European Symposium on Algorithms (ALGO 2004) (ESA)*. Bergen, Norway, 14–17 Sep 2004.
- Jul 2004 *Dagstuhl Seminar on “Cache-Oblivious and Cache-Aware Algorithms”*. Dagstuhl, Germany, 18–23 Jul 2004.
- Jul 2004 *Cache-Oblivious Algorithms and Data Structures. 9th Scandinavian Workshop on Algorithm Theory (SWAT)*. Louisiana Museum of Modern Art, Humlebæk, Denmark, 8–10 Jul 2004 (presentation [pdf](#)).



- Jan 2004 *15th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*. New Orleans, Louisiana, USA, 11–13 Jan 2004.
- Jan 2004 *6th Workshop on Algorithm Engineering and Experiments (ALENEX)*. New Orleans, Louisiana, USA, 10–10 Jan 2004 (presentation [pdf](#)).
- Jun 2003 *Algorithms and Data Structures (ADS)*. Bertinoro, Forlì, Italy, 23–27 Jun 2003 (presentation [pdf](#)).
- Jan 2003 *14th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*. Baltimore, Maryland, USA, 12–14 Jan 2003 (presentation [pdf](#)).
- Jan 2003 *5th Workshop on Algorithm Engineering and Experiments (ALENEX)*. Baltimore, Maryland, USA, 11–11 Jan 2003.
- Nov 2002 *13th Annual International Symposium on Algorithms and Computation (ISAAC)*. Vancouver, British Columbia, Canada, 21–23 Nov 2002 (presentation [pdf](#)).
- Nov 2002 *43rd Annual Symposium on Foundations of Computer Science (FOCS)*. Vancouver, British Columbia, Canada, 16–19 Nov 2002.
- Nov 2002 *Workshop on Algorithms and Models for the Web-Graph (WAW)*. Vancouver, British Columbia, Canada, 16 Nov 2002.
- May 2002 *34th Annual ACM Symposium on Theory of Computing (STOC)*. Montréal, Québec, Canada, 19–21 May 2002.
- Aug 2001 *ALGO 2001 (9th Annual European Symposium on Algorithms, 5th Workshop on Algorithm Engineering, and 1st Workshop on Algorithms in BioInformatics) (ALGO)*. Aarhus, Denmark, 27–31 Aug 2001.
- Jul 2001 *28th International Colloquium on Automata, Languages, and Programming (ICALP)*. Hersonissos, Crete, Greece, 8–12 Jul 2001.
- Jul 2001 *33rd Annual ACM Symposium on Theory of Computing (STOC)*. Hersonissos, Crete, Greece, 6–8 Jul 2001 (presentation [pdf](#)).
- Sep 2000 *Dagstuhl Seminar on “Experimental Algorithmics”*. Dagstuhl, Germany, 10–15 Sep 2000.
- Sep 2000 *Alcom-FT Meeting*. Saarbrücken, Germany, 9 Sep 2000.
- Jul 2000 *7th Scandinavian Workshop on Algorithm Theory (SWAT)*. Bergen, Norway, 5–7 Jul 2000.
- Dec 1999 *19th Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS)*. Chennai, India, 13–15 Dec 1999.
- Dec 1999 Regularities in Sequences. *Workshop on Advances in Data Structures, preworkshop of the 19th Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS)*. Chennai, India, 11–12 Dec 1999 (presentation [pdf](#)).
- Jan 1999 *10th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*. Baltimore, Maryland, USA, 17–19 Jan 1999.
- Jan 1999 *1st Workshop on Algorithm Engineering and Experimentation (ALENEX)*. Baltimore, Maryland, USA, 15–16 Jan 1999.
- Jul 1998 *6th Scandinavian Workshop on Algorithm Theory (SWAT)*. Stockholm, Sweden, 8–10 Jul 1998 (presentation [pdf](#), [pdf](#)).
- May 1998 *DIMACS Workshop on External Memory Algorithms and Visualization (DIMACS Workshop)*. Piscataway, New Jersey, USA, 20–22 May 1998.
- Jan 1998 *9th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*. San Francisco, California, USA, 25–27 Jan 1998 (presentation [pdf](#)).
- Jan 1998 *ALCOM-IT Review Meeting (ALCOM-IT)*. Saarbrücken, Germany, 15–17 Jan 1998.
- Sep 1997 *11th International Workshop on Distributed Algorithms (WDAG)*. Saarbrücken, Germany, 24–26 Sep 1997.
- Sep 1997 *International School On Distributed Computing and Systems - ALCOM-IT SODICS (SODICS)*. Saarbrücken, Germany, 21–23 Sep 1997.
- May 1997 *Algorithms for Future Technologies - ALTEC’97 (ALTEC)*. Saarbrücken, Germany, 21–24 May 1997.
- Feb–Mar 1997 *14th Annual Symposium on Theoretical Aspects of Computer Science (STACS)*. Lübeck,

- Germany, 27 Feb–1 Mar 1997 (presentation [pdf](#)).
- Jul 1996 *5th Scandinavian Workshop on Algorithm Theory (SWAT)*. Reykjavik, Iceland, 3–5 Jul 1996 (presentation [pdf](#), [pdf](#)).
- Jun 1996 *BRICS Strategy Workshop*. BRICS, Department of Computer Science, Aarhus University, 5–6 Jun 1996.
- Jan 1996 *7th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*. Atlanta, Georgia, USA, 28–30 Jan 1996 (presentation [pdf](#)).
- Aug 1995 *4th International Workshop on Algorithms and Data Structures (WADS)*. Kingston, Ontario, Canada, 16–18 Aug 1995 (presentation [pdf](#)).
- Mar 1995 *12th Annual Symposium on Theoretical Aspects of Computer Science (STACS)*. München, Germany, 2–4 Mar 1995.
- Sep 1994 *2nd Annual European Symposium on Algorithms (ESA)*. Utrecht, The Netherlands, 28–28 Sep 1994.
- Aug 1994 *Complexity Theory: Present and Future*. Aarhus, Denmark, 15–18 Aug 1994.
- Jul 1994 *4th Scandinavian Workshop on Algorithm Theory (SWAT)*. Aarhus, Denmark, 6–8 Jul 1994.
- Sep–Oct 1993 *1st Annual European Symposium on Algorithms (ESA)*. Bad Honnef, Germany, 30 Sep–2 Oct 1993.

## Talks

- Aug 2021 *An Optimal and Practical Cache-Oblivious Algorithm for Computer Multiresolution Rasters*. Lecture for new computer science students. Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Feb 2021 *Algoritmer*. U-days, Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Nov 2020 *Soft Sequence Heaps*. Department of Computer Science, Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Jun 2020 *25 Years of Teaching*. Teaching@Nat-Tech. Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Mar 2020 *Autogenerating Algorithms and Data Structures Exams*. Algorithms and Data Structures Retreat. Aarhus University, Sandbjerg, Denmark.
- Feb 2020 *Commodore 64 - PETSCII*. Verdens Kedeligste Foredrag (The World's Most Boring Lecture). Selected "the most boring"/Winner lecture among three lectures. Tågekammeret, Aarhus University, Aarhus, Denmark.
- Nov 2019 *Exams – behind the scenes*. DSAU (student association for computer science students). Department of Computer Science, Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Apr 2019 *Introduction to Programming with Scientific Applications*. Course on Computational Thinking for High School Teachers. Center for Computational Thinking and Design, Aarhus University, Odense, Denmark (presentation [pdf](#), [pptx](#)).
- Feb 2019 *Recursion*. Verdens Kedeligste Foredrag (The World's Most Boring Lecture). Selected "the most boring"/Winner lecture among three lectures. Tågekammeret, Aarhus University, Aarhus, Denmark.
- Nov 2018 *Præsentationen skaleres billeder*. Eulers Venner. Department of Mathematics, Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Nov 2018 *Julehjerter (X-mas hearts)*. DSAU (student association for computer science students). Department of Computer Science, Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- May 2018 *A Short Report on the Course: Introduction to Programming with Scientific Applications*. Computational Math / Science. Center for Computational Thinking and Design, Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Feb 2018 *An introduction to PowerPoint - A Dogma talk*. Verdens Kedeligste Foredrag (The World's Most Boring Lecture). Selected "the most boring"/Winner lecture among three lectures. Tågekammeret, Aarhus University, Aarhus, Denmark.
- Aug 2017 *An Optimal and Practical Cache-Oblivious Algorithm for Computer Multiresolution Rasters*.

- Lecture for new computer science students. Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Feb 2017 *Pong - The Multiplayer Game*. Verdens Kedeligste Foredrag (The World's Most Boring Lecture). Tågekammeret, Aarhus University, Aarhus, Denmark.
- Mar 2016 *External Memory Three-Sided Range Reporting and Top-k Queries with Sublogarithmic Updates*. Dagstuhl Seminar on "Data Structures and Advanced Models of Computation on Big Data". Dagstuhl, Germany (presentation [pdf](#), [pptx](#)).
- Feb 2016 *Professor inauguration talk: Data Structures and Models of Computation*. Department of Computer Science, Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Nov 2015 *External Memory Three-Sided Range Reporting and Top-k Queries with Sublogarithmic Updates*. Department of Mathematics and Computer Science, University of Southern Denmark, Odense, Odense, Denmark (presentation [pdf](#), [pptx](#)).
- Nov 2015 *External Memory Three-Sided Range Reporting and Top-k Queries with Sublogarithmic Updates*. MADALGO, Department of Computer Science, Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Aug 2015 *Blackboard Introduction to TAs @ CS*. Department of Computer Science, Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Aug 2015 *Håndtering af øvelseshold og gruppeafleveringer*. Blackboard Brugermøde @ ST. Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Mar 2015 *Prime Time*. Verdens Kedeligste Foredrag (The World's Most Boring Lecture). Tågekammeret, Aarhus University, Aarhus, Denmark (presentation [pdf](#)).
- Nov 2014 *The Algorithms and Data Structures Group at Aarhus University*. Department of Computer Science, Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Sep 2014 *Computing Triplet and Quartet Distances Between Trees*. Computer Science Institute, Charles University, Prague, Czech Republic (presentation [pdf](#), [pptx](#)).
- Sep 2014 *Simplicity in Computational Geometry – Sven Skyum's Algorithm for Computing the Smallest Enclosing Circle*. Sven Skyum - farewell celebration. Department of Computer Science, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Aug 2014 *Voronoi Diagrammer*. Lecture for new computer science students. Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Apr 2014 *Sorting Integers in the RAM Model*. Annual MADALGO Review Meeting. Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Apr 2014 *Algoritmer*. Master Class in Mathematics, Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Apr 2014 *Writing and Defending your Thesis*. PhD retreat, Department of Computer Science, Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Feb 2014 *Range Minimum Queries (Part II)*. Dagstuhl Seminar on "Data Structures and Advanced Models of Computation on Big Data". Dagstuhl, Germany (presentation [pdf](#), [pptx](#)).
- Jan 2014 *Computing Triplet and Quartet Distances Between Trees*. Department of Computer Science, University of Copenhagen, Copenhagen, Denmark (presentation [pdf](#), [pptx](#)).
- Oct 2013 *The Encoding Complexity of Two Dimensional Range Minimum Data Structures*. MADALGO, Department of Computer Science, Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Aug 2013 *Voronoi Diagrammer*. Lecture for new computer science students. Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- May 2013 *Algorithms and Data Structures*. Computer Science Day. Department of Computer Science, Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Apr 2013 *Algoritmer*. Master Class in Mathematics, Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Feb–Mar 2013 *Algoritmer*. U-days, Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Dec 2012 *Julehjerter*. Open Space Aarhus, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Nov 2012 *Triplet and Quartet Distances Between Trees of Arbitrary Degree*. ETH Zürich, Zürich, Switzerland (presentation [pdf](#), [pptx](#)).

- May 2012 *Algorithms and Data Structures – Strict Fibonacci Heaps*. Computer Science Day. Department of Computer Science, Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Feb 2012 *Crossing a Classical Data Structure Problem: Strict Fibonacci Heaps*. Annual MADALGO Review Meeting. Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Nov 2011 *Dynamic Planar Range Maxima Queries*. LIAFA, Université Paris Diderot, Paris, Paris, France (presentation [pdf](#), [pptx](#)).
- Oct 2011 *Integer Representations towards Efficient Counting in the Bit Probe Model*. University of Ljubljana, Ljubljana, Slovenia (presentation [pdf](#), [pptx](#)).
- Oct 2011 *Dynamic Planar Range Maxima Queries*. University of Primorska, Koper, Slovenia (presentation [pdf](#), [pptx](#)).
- Aug 2011 *Sådan virker Google*. Ungdommens Naturvidenskabelige Forening i Aarhus (UNF). Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Jun 2011 *Integer Representations towards Efficient Counting in the Bit Probe Model*. MADALGO, Department of Computer Science, Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Apr 2011 *Sådan virker Google*. Ungdommens Naturvidenskabelige Forening i København (UNF). IT University of Copenhagen, Copenhagen, Denmark (presentation [pdf](#), [pptx](#)).
- Mar 2011 *Binære Tællere*. Verdens Kedeligste Foredrag (The World’s Most Boring Lecture). Tågekammeret, Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Nov 2010 *Udfordringer ved håndtering af massive datamængder: Forskingen ved Grundforskningscenteret for Massive Data Algorithmics Data Algorithmics*. Møde i Universitets-Samvirket Aarhus. Aarhus University, Statsbiblioteket, Aarhus (presentation [pdf](#), [pptx](#)).
- Nov 2010 *Massive Data Algorithmics*. Forskningsdag for Datamatikerlærere. Erhvervsakademiet Lillebælt, Vejle, Denmark (presentation [pdf](#), [pptx](#)).
- Oct 2010 *External Memory Indexing Structures*. Dansk Selskab for Datalogi. Copenhagen Business School, Frederiksberg, Copenhagen, Denmark (presentation [pdf](#), [pptx](#)).
- Feb – Mar 2010 *Time-Space Trade-Offs for 2D Range Minimum Queries*. Dagstuhl Seminar on “Data Structures”. Dagstuhl, Germany (presentation [pdf](#), [pptx](#)).
- Oct 2009 *Algorithms: Matrices and Graphs*. MasterClass in Mathematics. ScienceTalerter, Mærsk Mc-Kinney Møller Videncenter, Sorø, Denmark (presentation [pdf](#), [pptx](#)).
- Sep 2009 *Internetsøgemaskiner*. Ungdommens Naturvidenskabelige Forening i Ålborg (UNF). Ålborg University, Ålborg, Denmark (presentation [pdf](#)).
- Sep 2009 *MADALGO*. MasterClass Teacher Meeting. ScienceCenter, Mærsk Mc-Kinney Møller Videncenter, Sorø, Denmark (presentation [pdf](#), [pptx](#)).
- Jun 2008 *Algorithms and Data Structures for Faulty Memory*. Computer Science Day. Department of Computer Science, Aarhus University, Aarhus, Denmark (presentation [pdf](#), [pptx](#)).
- Jan 2008 *Massive Data Algorithmics*. Danske Bank, Faglig Dag. Danske Bank, Aarhus, Denmark (presentation [pdf](#), [ppt](#)).
- May 2007 *Cache-Oblivious and External Memory Algorithms: Theory and Experiments*. Oberwolfach Seminar on “Algorithm Engineering”. Oberwolfach, Germany (presentation [pdf](#), [ppt](#)).
- Feb 2007 *Internetsøgemaskiner*. Ungdommens Naturvidenskabelige Forening i Ålborg (UNF). Ålborg University, Ålborg, Denmark (presentation [pdf](#)).
- Oct 2006 *Skewed Binary Search Trees*. Department of Computer Science, University of Copenhagen, Copenhagen, Denmark (presentation [pdf](#)).
- Feb – Mar 2006 *Skewed Binary Search Trees*. Dagstuhl Seminar on “Data Structures”. Dagstuhl, Germany (presentation [pdf](#)).
- Dec 2004 *Internetsøgemaskiner*. Ungdommens Naturvidenskabelige Forening i Aarhus (UNF). Aarhus University, Aarhus, Denmark (presentation [pdf](#)).
- Nov 2004 *Søgemaskiner*. Udviklerkonference. Danske Bank, Brabrand, Denmark (presentation [pdf](#)).
- May 2004 *Algorithms and Data Structures for Hierarchical Memory*. Opfølgingsmøde med Danmarks Grundforskningsfond. BRICS, Department of Computer Science, Aarhus University (presentation [pdf](#)).



- Apr 2003 *Cache Oblivious Searching and Sorting*. IT University of Copenhagen, Copenhagen, Denmark (presentation [pdf](#)).
- Jan 2003 *Søgemaskiner på Internettet (with Rolf Fagerberg)*. Datalogforeningen. Department of Computer Science, Aarhus University (presentation [pdf](#)).
- Oct 2002 *BRICS Research Activities - Algorithms*. BRICS Retreat. Sandbjerg, Denmark (presentation [pdf](#)).
- Feb–Mar 2002 *Optimal Finger Search Trees in the Pointer Machine*. Dagstuhl Seminar on “Data Structures”. Dagstuhl, Germany (presentation [pdf](#)).
- Oct 2001 *Cache Oblivious Search Trees via Trees of Small Height*. Computer Technology Institute, Patras, Greece (presentation [pdf](#)).
- Sep 2001 *Cache Oblivious Search Trees via Trees of Small Height*. ALCOM-FT Annual Review Meeting. Rome, Italy (presentation [pdf](#)).
- Jan 2001 *Udvikling og Implementering af Ombrydningsalgoritmer - Et projekt med CCI Europe*. Opfølgingsmøde med Danmarks Grundforskningsfond. BRICS, Department of Computer Science, Aarhus University (presentation [pdf](#)).
- Nov 2000 *Optimal Static Range-Reporting in One Dimension*. BRICS, Department of Computer Science, Aarhus University, Aarhus, Denmark (presentation [pdf](#)).
- Oct 2000 *BRICS Research Activities - Algorithms*. BRICS Retreat. Sandbjerg, Denmark (presentation [pdf](#)).
- Feb–Mar 2000 *Dynamic Convex Hull*. Dagstuhl Seminar on “Data Structures”. Dagstuhl, Germany (presentation [pdf](#)).
- Jan 1999 *Level-Balanced B-Trees*. Department of Computer Science, Duke University, Durham, North Carolina, USA (presentation [pdf](#)).
- Aug 1998 *Level-Rebuilt B-Trees*. Theory and Practice of Algorithms for Problems Involving Massive Data Sets. BRICS, Department of Computer Science, Aarhus University (presentation [pdf](#)).
- Mar 1998 *Worst-Case Efficient External-Memory Priority Queues*. Dagstuhl Seminar on “Data Structures”. Dagstuhl, Germany (presentation [pdf](#)).
- Nov 1997 *Finger Search Trees with Constant Insertion Time*. Istituto di Elaborazione della Informazione, CNR, Pisa, Pisa, Italy (presentation [pdf](#)).
- Aug 1997 *Finger Search Trees with Constant Insertion Time*. Oberwolfach Seminar on “Effiziente Algorithmen”. Oberwolfach, Germany (presentation [pdf](#)).
- Feb 1997 *Predecessor Queries in Dynamic Integer Sets*. Max-Planck-Institut für Informatik, Saarbrücken, Germany.
- Sep 1996 *Approximate dictionary queries*. BRICS, Department of Computer Science, Aarhus University, Aarhus, Denmark.
- Sep 1996 *Predecessor Queries in Dynamic Integer Sets*. BRICS, Department of Computer Science, Aarhus University, Aarhus, Denmark.
- Mar 1996 *Priority Queues on Parallel Machines*. BRICS, Department of Computer Science, Aarhus University, Aarhus, Denmark (presentation [pdf](#)).
- Feb–Mar 1996 *Priority Queues on Parallel Machines*. Dagstuhl Seminar on “Data Structures”. Dagstuhl, Germany (presentation [pdf](#)).
- Sep 1995 *Fast Meldable Priority Queues*. Max-Planck-Institut für Informatik, Saarbrücken, Germany (presentation [pdf](#)).
- Aug 1995 *Priority Queues with Good Worst Case Performance*. Toronto University, Toronto, Ontario, Canada (presentation [pdf](#)).
- May 1994 *Finger Search Trees*. BRICS Strategy Workshop. BRICS, Department of Computer Science, Aarhus University, Hjørnø, Denmark (presentation [pdf](#)).

## Teaching

- Spring 2021 Lecturer, *Introduction to Programming with Scientific Applications (177 students)*. Department of Computer Science, Aarhus University.

- Nov 2020 Lecturer, *Python Crash Course (3 lectures)*. Steno Diabetes Center Aarhus, Aarhus University Hospital.
- Fall 2020 Lecturer, *Algorithms and Data Structures*. Department of Computer Science, Aarhus University.
- Spring 2020 Lecturer, *Introduction to Programming with Scientific Applications (153 students)*. Department of Computer Science, Aarhus University.
- Spring 2020 Lecturer, *Pre-talent track - 1 lecture on Backwards Analysis*. Department of Computer Science, Aarhus University.
- Fall 2019 Lecturer, *Computational Geometry: Theory and Applications (5 lectures)*. Department of Computer Science, Aarhus University.
- Fall 2019 Lecturer, *Algorithms and Data Structures (185 students)*. Department of Computer Science, Aarhus University.
- Spring 2019 Lecturer, *Pre-talent track - 1 lecture on Backwards Analysis (6 students)*. Department of Computer Science, Aarhus University.
- Spring 2019 Lecturer, *Introduction to Programming with Scientific Applications (151 students)*. Department of Computer Science, Aarhus University.
- Fall 2018 Lecturer, *Foundations of Algorithms and Data Structures (200 students)*. Department of Computer Science, Aarhus University.
- Spring 2018 Lecturer, *Pre-talent track - 1 lecture on Backwards Analysis (6 students)*. Department of Computer Science, Aarhus University.
- Spring 2018 Lecturer, *Introduction to Programming with Scientific Applications (93 students)*. Department of Computer Science, Aarhus University.
- Oct 2017 Lecturer, *Lecture on algorithms for high-school students (Studiepraktik)*. Department of Computer Science, Aarhus University.
- Oct 2017 Lecturer, *Lecture and exercise class on algorithms at the IT Camp 2017 (woman in CS initiative)*. Department of Computer Science, Aarhus University.
- Spring 2017 Lecturer, *Algorithms and Data Structures 2 (Quarter 4, 120 students)*. Department of Computer Science, Aarhus University.
- Spring 2017 Lecturer, *Algorithm Engineering (Quarter 3, 29 students)*. Department of Computer Science, Aarhus University.
- Spring 2017 Lecturer, *Algorithms and Data Structures 1 (Quarter 3, 164 students)*. Department of Computer Science, Aarhus University.
- Fall 2016 Lecturer, *Computer Science in Perspective (topic Classic Algorithms, and Internet Algorithms, 2 weeks)*. Department of Computer Science, Aarhus University.
- Spring 2016 Lecturer, *Algorithms and Data Structures 2 (Quarter 4, 145 students)*. Department of Computer Science, Aarhus University.
- Spring 2016 Lecturer, *Algorithm Engineering (Quarter 3, 29 students)*. Department of Computer Science, Aarhus University.
- Spring 2016 Lecturer, *Algorithms and Data Structures 1 (Quarter 3, 171 students)*. Department of Computer Science, Aarhus University.
- Fall 2015 Lecturer, *Computer Science in Perspective (topic Classic Algorithms, and Internet Algorithms, 2 weeks)*. Department of Computer Science, Aarhus University.
- Fall 2015 Lecturer, *Advanced Algorithms: Data Structures (Quarters 1+2, 18 students)*. Department of Computer Science, Aarhus University.
- Spring 2015 Lecturer, *Algorithms and Data Structures 2 (Quarter 4, 122 students)*. Department of Computer Science, Aarhus University.
- Spring 2015 Lecturer, *Algorithm Engineering (Quarter 3, 38 students)*. Department of Computer Science, Aarhus University.
- Spring 2015 Lecturer, *Algorithms and Data Structures 1 (Quarter 3, 170 students)*. Department of Computer Science, Aarhus University.
- Oct 2014 Lecturer, *Exercise class on algorithms for high-school students (Gymnasiepraktik)*. Depart-

- ment of Computer Science, Aarhus University.
- Fall 2014 Lecturer, *Computer Science in Perspective (topic Classic Algorithms, and Internet Algorithms, 2 weeks)*. Department of Computer Science, Aarhus University.
- Spring 2014 Lecturer, *Algorithms and Data Structures 2 (Quarter 4, 136 students)*. Department of Computer Science, Aarhus University.
- Spring 2014 Lecturer, *Algorithm Engineering (Quarter 3, 21 students)*. Department of Computer Science, Aarhus University.
- Spring 2014 Lecturer, *Algorithms and Data Structures 1 (Quarter 3, 190 students)*. Department of Computer Science, Aarhus University.
- Oct 2013 Lecturer, *Exercise class on algorithms for high-school students (Gymnasiepraktik)*. Department of Computer Science, Aarhus University.
- Oct 2013 Lecturer, *Exercise class on algorithms at the IT Camp 2013 (woman in CS initiative)*. Department of Computer Science, Aarhus University.
- Fall 2013 Lecturer, *Advanced Algorithms: Data Structures (Quarters 1+2, 47 students)*. Department of Computer Science, Aarhus University.
- Fall 2013 Lecturer, *Computer Science in Perspective (topic Algorithms and Complexity, and Internet Algorithms, 2 weeks)*. Department of Computer Science, Aarhus University.
- Spring 2013 Lecturer, *Algorithms and Data Structures 2 (Quarter 4, 123 students)*. Department of Computer Science, Aarhus University.
- Spring 2013 Lecturer, *Algorithm Engineering (Quarter 3, 18 students)*. Department of Computer Science, Aarhus University.
- Spring 2013 Lecturer, *Algorithms and Data Structures 1 (Quarter 3, 186 students)*. Department of Computer Science, Aarhus University.
- Oct 2012 Lecturer, *Exercise class on algorithms for high-school students (Gymnasiepraktik)*. Department of Computer Science, Aarhus University.
- Oct 2012 Lecturer, *Exercise class on algorithms at the IT Camp 2012 (woman in CS initiative)*. Department of Computer Science, Aarhus University.
- May 2012 Lecturer, *Lecture on Google and exercises on algorithms for high-school students (from Silkeborg Gymnasium and Rødkilde Gymnasium, Vejle)*. Department of Computer Science, Aarhus University.
- Fall 2012 Lecturer, *Computer Science in Perspective (topic Algorithms and Complexity, and Internet Algorithms, 2 weeks)*. Department of Computer Science, Aarhus University.
- Spring 2012 Lecturer, *Algorithms and Data Structures 2 (Quarter 4, 129 students)*. Department of Computer Science, Aarhus University.
- Spring 2012 Lecturer, *Algorithms and Data Structures 1 (Quarter 3, 171 students)*. Department of Computer Science, Aarhus University.
- Oct 2011 Lecturer, *Exercise class on algorithms for high-school students (Gymnasiepraktik)*. Department of Computer Science, Aarhus University.
- Fall 2011 Lecturer, *Computer Science in Perspective (topic Algorithms and Complexity, 1 week)*. Department of Computer Science, Aarhus University.
- Fall 2011 Lecturer, *Advanced Algorithms: Data Structures (Quarters 1+2, 29 students)*. Department of Computer Science, Aarhus University.
- Spring 2011 Lecturer, *Algorithms and Data Structures 2 (Quarter 4, 99 students)*. Department of Computer Science, Aarhus University.
- Spring 2011 Lecturer, *Algorithms and Data Structures 1 (Quarter 3, 146 students)*. Department of Computer Science, Aarhus University.
- Oct 2010 Lecturer, *Exercise class on algorithms for high-school students (Gymnasiepraktik)*. Department of Computer Science, Aarhus University.
- Fall 2010 Lecturer, *Computational Geometry (Quarters 1+2, 22 students)*. Department of Computer Science, Aarhus University.
- Fall 2010 Lecturer, *Computer Science in Perspective (topic Algorithms and Complexity, 1 week)*. De-

- partment of Computer Science, Aarhus University.
- Spring 2010 Lecturer, *Algorithms and Data Structures 2 (Quarter 4, 84 students)*. Department of Computer Science, Aarhus University.
- Spring 2010 Lecturer, *Algorithms and Data Structures 1 (Quarter 3, 134 students)*. Department of Computer Science, Aarhus University.
- Oct 2009 Lecturer, *Exercise class on algorithms for high-school students (Gymnasiepraktik)*. Department of Computer Science, Aarhus University.
- Fall 2009 Lecturer, *Advanced Algorithms: Data Structures (Quarters 1+2, 54 students)*. Department of Computer Science, Aarhus University.
- Fall 2009 Lecturer, *Computer Science in Perspective (topic Algorithms and Complexity, 1 week)*. Department of Computer Science, Aarhus University.
- Spring 2009 Lecturer, *Algorithms and Data Structures 2 (Quarter 4, 98 students)*. Department of Computer Science, Aarhus University.
- Spring 2009 Lecturer, *Algorithms and Data Structures 1 (Quarter 3, 140 students)*. Department of Computer Science, Aarhus University.
- Oct 2008 Lecturer, *Exercise class on algorithms for high-school students (Gymnasiepraktik)*. Department of Computer Science, Aarhus University.
- Fall 2008 Lecturer, *Computational Geometry (Quarters 1+2, 24 students)*. Department of Computer Science, Aarhus University.
- Fall 2008 Lecturer, *Computer Science in Perspective (topic Algorithms and Complexity, 1 week)*. Department of Computer Science, Aarhus University.
- Spring 2008 Lecturer, *Algorithms and Data Structures 2 (Quarter 4, 89 students)*. Department of Computer Science, Aarhus University.
- Spring 2008 Lecturer, *Algorithms and Data Structures 1 (Quarter 3, 97 students)*. Department of Computer Science, Aarhus University.
- Nov 2007 Lecturer, *Exercise class on algorithms for high-school students (Gymnasiepraktik)*. Department of Computer Science, Aarhus University.
- Fall 2007 Lecturer, *Computer Science in Perspective (topic Algorithms and Complexity, 1 week)*. Department of Computer Science, Aarhus University.
- Fall 2007 Lecturer, *Advanced Algorithms: Data Structures (Quarters 1+2, 39 students)*. Department of Computer Science, Aarhus University.
- Spring 2007 Lecturer, *Algorithms and Data Structures 2 (Quarter 4, 92 students)*. Department of Computer Science, Aarhus University.
- Spring 2007 Lecturer, *Algorithms and Data Structures 1 (Quarter 3, 105 students)*. Department of Computer Science, Aarhus University.
- Nov 2006 Lecturer, *Exercise class on algorithms for high-school students (Gymnasiepraktik)*. Department of Computer Science, Aarhus University.
- Fall 2006 Lecturer, *Computational Geometry (Quarters 1+2, 27 students)* (with Lars Arge). Department of Computer Science, Aarhus University.
- Fall 2006 Lecturer, *Computer Science in Perspective (topic Algorithms and Complexity, 1 week)*. Department of Computer Science, Aarhus University.
- Spring 2006 Lecturer, *Algorithms and Data Structures 2 (Quarter 4, 91 students)*. Department of Computer Science, Aarhus University.
- Spring 2006 Lecturer, *Algorithms and Data Structures 1 (Quarter 3, 111 students)*. Department of Computer Science, Aarhus University.
- Nov 2005 Lecturer, *Exercise class on algorithms for high-school students (Gymnasiepraktik)*. Department of Computer Science, Aarhus University.
- Feb 2005 Lecturer, *Exercise class on algorithms for high-school students (Gymnasiepraktik)*. Department of Computer Science, Aarhus University.
- Fall 2005 Lecturer, *Advanced Algorithms: Data Structures (Quarter 1+2, 22 students)* (with Lars Arge). Department of Computer Science, Aarhus University.



- Fall 2005 Lecturer, *Computer Science in Perspective (topic Algorithms and Complexity, 1 week)*. Department of Computer Science, Aarhus University.
- Spring 2005 Lecturer, *Algorithms and Data Structures 2 (Quarter 4, 92 students)*. Department of Computer Science, Aarhus University.
- Spring 2005 Lecturer, *Algorithms and Data Structures 1 (Quarter 3, 101 students)*. Department of Computer Science, Aarhus University.
- Fall 2004 Lecturer, *Computer Science in Perspective (topic Algorithms and Complexity, 1 week)*. Department of Computer Science, Aarhus University.
- Fall 2004 Lecturer, *Computational Geometry (Quarter 1+2, 29 students)* (with Lars Arge). Department of Computer Science, Aarhus University.
- Spring 2004 Lecturer, *Algorithms and Data Structures 2 (Quarter 4, 124 students)*. Department of Computer Science, Aarhus University.
- Spring 2004 Lecturer, *Algorithms and Data Structures 1 (Quarter 3, 136 students)*. Department of Computer Science, Aarhus University.
- Fall 2003 Lecturer, *External Memory Algorithms and Data Structures (26 students)* (with Rolf Fagerberg). Department of Computer Science, Aarhus University.
- Spring 2003 Lecturer, *Algorithms and Data Structures (176 students)* (with Erik Meineche Schmidt). Department of Computer Science, Aarhus University.
- Fall 2002 Lecturer, *Algorithms and Data Structures* (with Rolf Fagerberg). Department of Computer Science, Aarhus University.
- Fall 2002 Lecturer, *Algorithms for Web Indexing and Searching* (with Rolf Fagerberg). Department of Computer Science, Aarhus University.
- Spring 2002 Lecturer, *Algorithms and Data Structures (139 students)* (with Erik Meineche Schmidt). Department of Computer Science, Aarhus University.
- Fall 2001 Lecturer, *External Memory Algorithms and Data Structures* (with Rolf Fagerberg). Department of Computer Science, Aarhus University.
- Spring 2001 Three lectures on I/O-algorithms, *Advanced Algorithms (Stephen Alstrup and Theis Rauhe)*. IT University of Copenhagen.
- Spring 2001 Lecturer, *Algorithms study group*. BRICS International PhD School, Department of Computer Science, Aarhus University.
- Fall 2000 Lecturer, *External Memory Algorithms and Data Structures* (with Rolf Fagerberg). Department of Computer Science, Aarhus University.
- Fall 1999 Lecturer, *External Memory Algorithms and Data Structures (17 students)* (with Rolf Fagerberg). Department of Computer Science, Aarhus University.
- Fall 1999 Lecturer, *Algorithms (6 students)* (with Rolf Fagerberg). BRICS International PhD School, Department of Computer Science, Aarhus University.
- May 1998 Lecturer, *MPII Advanced Mini Course: Functional Data Structures*. Max-Planck-Institut für Informatik.
- Fall 1998 Lecturer, *Algorithms (6 students)*. BRICS International PhD School, Department of Computer Science, Aarhus University.
- Fall 1996 Lecturer, *Algorithms and Data Structures: A course for students at the Engineering College of Aarhus*. Department of Computer Science, Aarhus University.
- Spring 1995 Administrator and Teaching Assistant (Instruktør), *dADS: Algorithms and Data Structures*. Department of Computer Science, Aarhus University.
- Spring 1994 Teaching Assistant (Instruktør), *dAlg: Algorithmic*. Department of Computer Science, Aarhus University.
- Fall 1993 Teaching Assistant (Instruktør), 2 classes, *dOvs: Compiler Construction*. Department of Computer Science, Aarhus University.
- Spring 1993 Teaching Assistant (Instruktør), *dAlg: Algorithmic*. Department of Computer Science, Aarhus University.
- Fall 1992 Teaching Assistant (Instruktør), *dProg2: Object Oriented Programming*. Department of

Computer Science, Aarhus University.

## Advising

### PhD

- Aug 2021 – Jul 2025 PhD advisor for Jens Kristian Refsgaard Nielsen.
- Aug 2021 – Jul 2025 PhD advisor for Casper Moldrup Rysgaard.
- Jan – Jul 2021 PhD co-advisor for Svend Christian Svendsen (main advisor Lars Arge), *Algorithms for Massive Terrains and Graphs* (presentation).
- Aug 2020 – Jun 2021 PhD advisor for Jesper Steensgaard (first year of PhD).
- Aug 2014 – Oct 2019 PhD advisor for Konstantinos Mampentzidis, *Comparison and Construction of Phylogenetic Trees and Networks* (presentation).
- Apr 2014 – Nov 2017 PhD advisor for Edvin Berglin, *Geometric covers, graph orientations, counter games* (presentation).
- Apr 2014 – Sep 2017 PhD co-advisor for Ingo van Duijn.
- Feb 2011 – Sep 2015 PhD advisor for Jesper Sindahl Nielsen, *Implicit Data Structures, Sorting, and Text Indexing* (presentation).
- Feb 2009 – Nov 2013 PhD advisor for Casper Kejlberg-Rasmussen (Danske Commodities), *Dynamic Data Structures: The Interplay of Invariants and Algorithm Design* (presentation).
- Aug 2008 – Jan 2015 PhD advisor for Jakob Truelsen (SCALGO), *Space Efficient Data Structures and External Terrain Algorithms* (presentation).
- May 2008 – Jul 2011 PhD advisor for Pooya Davoodi (Polytechnic Institute of New York University), *Data Structures: Range Queries and Space Efficiency* (presentation).
- Feb 2008 – Jan 2013 PhD Part A advisor for Mark Greve (Octoshape), *Online Sorted Range Reporting and Approximating the Mode* (Progress report).
- Aug 2007 – Sep 2011 PhD advisor for Kostantinos Tsakalidis (The Chinese University of Hong Kong), *Dynamic Data Structures: Orthogonal Range Queries and Update Efficiency* (presentation).
- Feb 2006 – Feb 2010 PhD advisor for Allan Grønlund Jørgensen (Siemens Wind Power A/S), *Data Structures: Sequence Problems, Range Queries, and Fault Tolerance* (presentation).
- Sep 2005 – Nov 2009 PhD advisor for Martin Olsen (Aarhus University, Institute of Business and Technology), *Link building* (presentation).
- Aug 2004 – Oct 2007 PhD advisor for Johan Nilsson (Octoshape), *Combinatorial algorithms for graphs and partially ordered sets* (presentation).
- Aug 2003 – Sep 2007 PhD advisor for Gabriel Moruz (Johann Wolfgang Goether-Universität Frankfurt), *Hardware Aware Algorithms and Data Structures* (presentation).
- Feb 2001 – Feb 2002 PhD advisor for Riko Jacob (Technische Universität München), *Dynamic Planar Convex Hull* (presentation).

### MSc

- Feb – Jun 2020 MSc advisor for Peter Ellerup Frank og Lars Gunnar Stjernholm Lundqvist, *Soft Sequence Heaps — Theory and Experimentation*.
- Feb – Jun 2018 MSc advisor for Nick Bakkegaard og Peter Burggaard, *Shortest Path Problem in the Plane with Polygonal Obstacle Violations*.
- Sep 2017 – Apr 2018 MSc advisor for Martin Jacobsen, *Cache Oblivious Dynamic Dictionaries with Insert/Query Tradeoffs*.
- Feb – Jun 2016 MSc advisor for Peter Gabrielsen og Christoffer Holbæk Hansen (formal advisor; project advisor Kasper Green Larsen), *Three-sided Range Reporting in External Memory*.

Feb–Jun 2016	MSc advisor for Jonas Nicolai Hovmand and Morten Houmøller Nygård (formal advisor; project advisor Kasper Green Larsen), <i>Estimating Frequencies and Finding Heavy Hitters</i> .
Feb–Jun 2016	MSc advisor for Thor Bagge and Kent Grigo (formal advisor; project advisor Kasper Green Larsen), <i>Getting to Know the Captain's Mistress with Reinforcement Learning</i> .
Feb–Jun 2016	MSc advisor for Troels Thorsen (formal advisor; project advisor Kasper Green Larsen), <i>Categorical Range Searching</i> .
Feb–Jun 2016	MSc advisor for Kenn Daniel and Casper Færgemand, <i>Selection in a Heap</i> .
Sep 2015–Jan 2016	MSc advisor for Henrik Knakkegaard Christensen, <i>Algorithms for Finding Dominators in Directed Graphs</i> .
Sep 2015–Jan 2016	MSc advisor for Jakob Peter Landbo and Casper Green (formal advisor; project advisor Kasper Green Larsen), <i>Range Mode Queries in Arrays</i> .
Sep–Dec 2015	MSc advisor for Jens Christan Christensen Jensen, <i>Event Detection in Soccer using Spatio-Temporal Data</i> .
Feb–Aug 2015	MSc advisor for Lukas Walther (formal advisor; project advisor Peyman Afshani), <i>Intersection of Convex Objects in the Plane</i> .
Feb–Jul 2015	MSc advisor for Simon Nordved Madsen and Rasmus Hallenberg-Larsen (formal advisor; project advisor Peyman Afshani), <i>Computing Set Operations on Simple Polygons Using Binary Space Partition Trees</i> .
Feb–Jun 2015	MSc advisor for Mathies Boile Christensen and Thomas Sandholt (formal advisor; project advisor Peyman Afshani), <i>Geometric Measures of Depth</i> .
Feb–Jun 2015	MSc advisor for Mads Ravn (formal advisor; project advisor Kasper Green Larsen), <i>Orthogonal Range Searching in 2D with Ball Inheritance</i> .
Feb–Jun 2015	MSc advisor for Anders Strand-Holm Vinther and Magnus Strand-Holm Vinther (formal advisor; project advisor Peyman Afshani), <i>Pathfinding in Two-dimensional Worlds</i> .
Dec 2014–Jun 2015	MSc advisor for Jan Hessellund Knudsen and Roland Larsen Pedersen, <i>Engineering Rank and Select Queries on Wavelet Trees</i> .
Nov 2014–Apr 2015	MSc advisor for Kris Vestergaard Ebbesen, <i>On the Practicality of Data-Oblivious Sorting</i> .
Aug 2014–Feb 2015	MSc advisor for Bo Mortensen (project advisor Peyman Afshani), <i>Algorithms for Computing Convex Hulls Using Linear Programming</i> .
May 2014–Mar 2015	MSc advisor for Claus Jespersen, <i>Monte Carlo Evaluation of Financial Options Using a GPU</i> .
May 2013–Jun 2014	MSc advisor for Daniel Winther Petersen (Nykredit), <i>Orthogonal Range Skyline Counting Queries</i> .
May 2013–Jan 2014	MSc advisor for Jakob Mark Friis (Lind Capital) and Steffen Beier Olesen (Lind Capital), <i>An Experimental Comparison of Max Flow Algorithms</i> .
Apr 2013–Apr 2014	MSc advisor for Jana Kunert, <i>Hashing and Random Graphs</i> .
Nov 2012–Aug 2013	MSc advisor for Jørgen Fogh, <i>Engineering a Fast Fourier Transform</i> .
Oct 2012–Jun 2013	MSc advisor for Morten Holt and Jens Johansen (thesis awarded the best Danish MSc thesis in Computer Science in 2013, by the Danish Society for Computer Science), <i>Computing Triplet and Quartet Distances</i> .
Aug 2012–Oct 2013	MSc advisor for Jeppe Schou, <i>Range Minimum Data Structures</i> .
Apr 2012–Jan 2015	MSc advisor for Mikkel Engelbrecht Hougaard, <i>On the Complexity of Red-Black Trees for Higher Dimensions</i> .
Sep 2011–Mar 2012	MSc advisor for Andreas Koefoed-Hansen (Aarhus University), <i>Representations for Path Finding in Planar Environments</i> .
Feb–Sep 2010	MSc advisor for David Kjær (Milestone Systems), <i>Range Median Algorithms</i> .
Sep 2009–Sep 2010	MSc advisor (joint with Mohammad Ali Abam) for Jonas Suhr Christensen, <i>Ex-</i>

- perimental Study of Kinetic Geometric t-Spanner Algorithms.*
- Apr 2008 – Apr 2009 MSc advisor for Henrik Bitsch Kirk (Statsbiblioteket), *Searching with Dynamic Optimality: In Theory and Practice.*
- Feb – Dec 2008 MSc advisor for Claus Andersen (Translucent), *An optimal minimum spanning tree algorithm.*
- Jan 2008 – Feb 2009 MSc advisor for Krzysztof Piatkowski (Peopleway), *Implementering og udvikling af maksimum delsum algoritmer.*
- Sep 2007 – Mar 2008 MSc advisor for Jonas Maturana Larsen (Trifork) and Michael Nielsen (Plushost), *En undersøgelse af algoritmer til løsning af generalized movers problem i 3D.*
- Sep 2006 – Aug 2007 MSc advisor for Thomas Rasmussen, *Evaluering af en skæringsalgoritme for Bezier kurver i planen.*
- Sep 2006 – Mar 2007 MSc advisor for Bjørn Casper Torndahl and Bo Søndergaard Carstensen, *Cache Oblivious String Dictionaries.*
- Mar 2006 – Aug 2007 MSc advisor for Lasse østerlund Gram (Marcantec), *Robusthed af netværk - med focus på scale-free grafer.*
- Jul 2005 – Jan 2007 MSc advisor for Kristian Dorph-Petersen (Danske Bank), *Praktisk brug af dynamisk sampling i data streams.*
- Feb 2005 – Jun 2006 MSc advisor for Dennis Søgaard (Accenture), *Minimising the Number of Collision Tests in Probabilistic Road Maps using Approximations in a Binary Connection Strategy.*
- Jan 2005 – Jan 2006 MSc advisor for Jesper Buch Hansen (Danske Bank), *Computing the Visibility Graph of Points Within a Polygon.*
- Feb 2004 – May 2006 MSc advisor for Morten Laustsen (Mjølner Informatics), *Orthogonal Range Counting in The Cache Oblivious Model.*
- Aug 2002 – Jan 2004 MSc advisor for Louise Skouboe Bjerg (Systematic Software Engineering A/S) and Lone Asferg Laursen (Mjølner Informatics), *Approximative afstande i planare grafer.*
- Aug 2002 – Jun 2003 MSc advisor (joint with Rolf Fagerberg) for Kristoffer Vinther (Bang & Olufsen), *Engineering Cache-Oblivious Sorting Algorithms.*
- Feb 2000 – Jan 2001 MSc advisor for Kristian Høgsberg Kristensen (Intel), *Automated Layout of Classified Ads.*

## Project

- Sep – Dec 2017 Project advisor for Nick Bakkegaard (5 ECTS), *Survey on Range Minimum Query.*
- Feb – Sep 2000 Project advisor for Jakob Skyberg (5 ECTS), *Implementation of three Convex Hull algorithms in Java.*

## Services

### Department of Computer Science, Aarhus University

- Aug 2016 Organizing chair of **ALGO 2016** (319 participants) that covered the jointly conferences and workshops: ESA, WABI, IPEC, WAOA, ALGOCLOUD, ALGOSENSORS, ATMOS, MASSIVE.
- Feb 2015 – Sep 2018 Member of the study board of the Aarhus School of Science (ASOS), Aarhus University.
- Sep 2014 – Jan 2019 Chair of the departments education committee.
- Oct 2013 – Member of the departments PostDoc committee.
- May 2013 – Feb 2016 Member of the departments PhD committee.
- Nov – Dec 2009 Chair of assessment committee for associate professor position.
- Dec 2008 – Member of the departments office-committee.



- Jun 2006 Organizing chair of the [Summer School on Game Theory in Computer Science](#).
- Jul 2003 Member of the organizing committee of the [18th IEEE Conference on Computational Complexity](#).
- Jun – Jul 2002 Organizing chair of the [EEF Summer School on Massive Data Sets](#) (55 participants), BRICS, Aarhus University, Denmark.
- Feb 2002 – Nov 2009 Member of the departments web-committee.
- Aug 2001 Organizing chair of [ALGO 2001](#) (178 participants) that covered the jointly conferences and workshops: [9th Annual European Symposium on Algorithms](#), [5th Workshop on Algorithm Engineering](#), [1st Workshop on Algorithms in BioInformatics](#), and [2nd International Workshop on Approximation and Randomized Algorithms in Communication Networks](#).
- May 1999 – May 2000 Member of the departments web-committee.
- Jan 1999 – Dec 2005 Co-organizer of the [BRICS mini-courses](#).
- Aug 1998 – Co-organizer of the [algorithms and complexity theory seminars](#).

## To the profession

- May 2023 Co-organizer [Dagstuhl Seminar on “Scalable Data Structures”](#). Dagstuhl, Germany.
- Feb 2021 Co-organizer [Dagstuhl Seminar on “Scalable Data Structures”](#). Dagstuhl, Germany.
- Jan – Feb 2019 Co-organizer [Dagstuhl Seminar on “Data Structures for the Cloud and External Memory Data”](#). Dagstuhl, Germany.
- May 2014 – Dec 2018 Co-Editor-in-Chief Journal of Discrete Algorithms.
- Apr 2014 – Mar 2022 Member of the Danish Censor list for Engineering (Mathematics, Physics, and Social Sciences).
- Apr 2010 – Dec 2016 Member of the Computer Science Group (Group 38) of the Danish Bibliometric Research Indicator, chair January 2014-December 2016.
- Mar – Oct 2010 Member of the Scientific Panel for e-Science, the Danish National Roadmap for Research Infrastructures.
- Jan 2010 – Feb 2013 Member of the Scientific Advising Group for the ESS Data Management Centre.
- Jan 2007 – Jan 2016 Member of the Steering Committee, Meeting on Algorithm Engineering and Experiments (ALENEX).
- Apr 2006 – Mar 2022 Member of the Danish Censor list for Computer Science.
- Mar 2006 Responsible for the electronic submission server and the electronic server for the program committee of the 10th Scandinavian Workshop on Algorithm Theory, Riga, Latvia.
- Sep 2004 – Sep 2007 Member of the Steering Committee, European Symposium on Algorithms (ESA).
- Sep 2000 – Jan 2004 Responsible for the electronic server handling [ALCOM-FT](#) technical reports.
- Jul 1999 Co-responsible for the electronic submission server and the electronic server for the program committee of the 3rd Workshop on Algorithm Engineering, London, UK.
- Aug 1997 Editor of the Oberwolfach report “Tagungsbericht 29/1997 – Effiziente Algorithmen”.

## Max-Planck-Institut für Informatik

- Aug 1998 Member of the organizing committee of the 2nd Workshop on Algorithm Engineering.
- Jan – Jul 1998 Member of the travel committee.

**Examiner**

- Aug 2021 – Aug 2020 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Algorithms and Data Structures (IMADA DM507, 10 ECTS), Rolf Fagerberg (7 students, reexam) and Discrete Algorithms, Algorithms and Data Structures (IMADA SE4-DMAD, 10 ECTS), Rolf Fagerberg and Lene Monrad Favrholt (11 students, reexam).
- Jun 2021 Course examiner, Department of Computer Science, Aarhus University. Computational Geometry: Theory and Experimentation (2020 Fall, 10 ECTS) Peyman Afshani (1 student, reexam).
- Jun 2021 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. BSc projects, advisors Rolf Fagerberg, Joan Boyar, Lene Monrad Favrholt (5 students).
- Jun 2021 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Heuristics and Approximation Algorithms (IMADA DM865, 10 ECTS), Lene Monrad Favrholt and Marco Chiarandini (2 students).
- Apr – May 2021 Course examiner, Department of Computer Science, Aarhus University. Theory of Algorithms and Computational Complexity (2020 Fall, 10 ECTS) Krisoffer Arnsfelt Hansen (2 students, reexam).
- Mar 2021 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Algorithms and Probability (IMADA DM551, 10 ECTS), Joan Boyar (10 students).
- Jan 2021 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Algorithms and Probability (IMADA DM551/MM851, 10 ECTS), Joan Boyar (48 students).
- Jan 2021 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. BSc project, advisors Rolf Fagerberg (1 student).
- Jan 2021 Course examiner, Department of Computer Science, Aarhus University. Computational Geometry: Theory and Experimentation (2020 Fall, 10 ECTS) Peyman Afshani (15 students).
- Jan 2021 Course examiner, Department of Computer Science, Aarhus University. Theory of Algorithms and Computational Complexity (2020 Fall, 10 ECTS) Krisoffer Arnsfelt Hansen (12 students).
- Dec – 2020 Course examiner, Department of Computer Science, Aarhus University. Algorithms and Data Structures, Master Degree Programme in Informatics Teaching (2020 Fall, 5 ECTS) Erik Meineche Schmidt (23 students).
- Aug 2020 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Algorithms and Data Structures (IMADA DM507, 10 ECTS), Rolf Fagerberg (7 students).
- Aug 2020 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Complexity and Computability (IMADA DM553, 10 ECTS), Joan Boyar (7 students).
- Jun 2020 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Complexity and Computability (IMADA DM553, 10 ECTS), Joan Boyar (13 students).
- Jun 2020 Course examiner, Department of Computer Science, Aarhus University. Optimization (2020 Spring, 10 ECTS) Kristoffer Arnsfelt Hansen (23 students).
- Jun 2020 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. BSc projects, advisors Rolf Fagerberg, Joan Boyar, Lene Monrad Favrholt (8 students).
- Jun 2020 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Heuristics and Approximation Algorithms (IMADA DM865, 10 ECTS), Lene Monrad Favrholt and Marco Chiarandini (12

- students).
- Jan 2020 Course examiner, Department of Computer Science, Aarhus University. Theory of Algorithms and Computational Complexity (2019 Fall, 10 ECTS) Krisoffer Arnsfelt Hansen (18 students).
- Jan 2020 Course examiner, Department of Computer Science, Aarhus University. Computational Geometry: Theory and Experimentation (2019 Fall, 10 ECTS) Peyman Afshani (9 students).
- Dec 2019 Course examiner, Department of Computer Science, Aarhus University. Introduction to Programming (2019 Fall, 10 ECTS) Kurt Jensen (15 students).
- Aug 2019 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Algorithms and Data Structures (IMADA DM507, 10 ECTS), Rolf Fagerberg (18 students).
- Aug 2019 Course examiner, Department of Computer Science, Aarhus University. Optimization (2019 Spring, 10 ECTS) Kristoffer Arnsfelt Hansen (7 students).
- Jun 2019 MSc thesis examiner, Nicolai Aarestrup Jørgensen, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Advisor Rolf Fagerberg.
- Jun 2019 Course examiner, Department of Computer Science, Aarhus University. Optimization (2019 Spring, 10 ECTS) Kristoffer Arnsfelt Hansen (19 student).
- Jun 2019 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Algorithms and Data Structures (IMADA DM507, 10 ECTS), Rolf Fagerberg (154 students).
- Jun 2019 Bachelor project examiner, Department of Computer Science, Aalborg University. Ingo van Duijn (4 students).
- Jan 2019 Course examiner, Department of Computer Science, Aarhus University. Software Engineering and Software Architecture (2018 Fall, 10 ECTS) Henrik Bærbak Christensen (54 students).
- Dec 2018 – Jan 2019 Course examiner, Department of Computer Science, Aarhus University. Introduction to Programming (2018 Fall, 10 ECTS) Kurt Jensen (53 students).
- Aug 2018 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Heuristics and Approximation Algorithms (IMADA DM865, 10 ECTS), Lene Monrad Favrholt and Marco Chiarandini (1 student), Computer Game Programming (IMADA DM842, 10 ECTS), Rolf Fagerberg and Christian Kudahl (1 student), Algorithms and Data Structures (IMADA DM507, 10 ECTS), Rolf Fagerberg (19 students).
- Jun 2018 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Algorithms and Data Structures (IMADA DM507, 10 ECTS), Rolf Fagerberg (192 students).
- May 2018 Course examiner, Department of Computer Science, Aarhus University. Computational Geometry: Theory and Experimentation (2017 Fall, 10 ECTS) Peyman Afshani (4 students).
- May 2018 Course examiner, Department of Computer Science, Aarhus University. Introduction to Programming (2017 Fall, 10 ECTS) Kurt Jensen (5 students).
- May 2018 Course examiner, Department of Computer Science, Aarhus University. Theory of Algorithms and Computational Complexity (2017 Fall, 10 ECTS) Kristoffer Arnsfelt Hansen (1 student).
- Jan 2018 Course examiner, Department of Computer Science, Aarhus University. Theory of Algorithms and Computational Complexity (2017 Fall, 10 ECTS) Kristoffer Arnsfelt Hansen (14 students).
- Jan 2018 Course examiner, Department of Computer Science, Aarhus University. Computational Geometry: Theory and Experimentation (2017 Fall, 10 ECTS) Peyman Afshani (25 students).
- Jan 2018 Course examiner, Department of Computer Science, Aarhus University. Introduc-

- tion to Programming (2017 Fall, 10 ECTS) Kurt Jensen (36 students).
- Jan 2018 Course examiner, Department of Computer Science, Aarhus University. Software Engineering and Software Architecture (2017 Fall, 10 ECTS) Henrik Bærbak Christensen (39 students).
- Aug 2017 Course examiner, Department of Computer Science, Aarhus University. Algorithmic Gems (2017 Q4, 5 ECTS) Kasper Green Larsen (2 students).
- Jun 2017 MSc thesis examiner, Kristine Vitting Klinkby Knudsen, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Advisor Jørgen Bang-Jensen.
- Jun 2017 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. DM553 Complexity and Computability (10 ECTS, 23 student) and DM508 Algorithms and Complexity (5 ECTS, 1 student), Jørgen Bang-Jensen.
- Jun 2017 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Approximation Algorithms (IMADA DM833, 5 ECTS), Lene Monrad Favrhøldt (1 student).
- Jun 2017 Course examiner, Department of Computer Science, Aarhus University. Distributed systems (2017 Q3+Q4, 5 ECTS) Claudio Orlandi (17 students).
- Jun 2017 Bachelor project examiner, Department of Computer Science, Aalborg University. Stefan Schmid and Klaus-Tycho Förster (7 students).
- Jun 2017 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Algorithms and Data Structures (IMADA DM507, 10 ECTS), Rolf Fagerberg (130 students).
- Mar 2017 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense, DM543/DM557/VK-DKM-E1v16/DM534/DM558 (9 students, reexam).
- Jan 2017 Course examiner, Department of Computer Science, Aarhus University. IO Algorithms (Q3+Q4 2016, 10 ECTS), Lars Arge (12 students).
- Jan 2017 Course examiner, Department of Computer Science, Aarhus University. Programming 2 (dProg 2, Q2 2016, 5 ECTS, 40 students), Gudmund Skovbjerg Frandsen.
- Oct 2016 Course examiner, Department of Computer Science, Aarhus University. Computability and Logic (14 students).
- Aug 2016 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense, BSc project/DM507/DM553/DM860/DM546 (14 students, reexam).
- Aug 2016 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense, DM508/DM553/DM817/DM556 (9 students, reexam).
- Jun 2016 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. DM553 Complexity and Computability (10 ECTS, 21 students).
- Jun 2016 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Algorithms and Data Structures (IMADA DM507, 10 ECTS), Rolf Fagerberg (118 students).
- Feb 2016 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense, DM557/I-ITS5-E1/VK-DKM-E1, DM819, DM551, DM207, DM847 (14 students, reexam).
- Jan 2016 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. I/O-Efficient Algorithms and Data Structures (IMADA DM207, 10 ECTS), Rolf Fagerberg (10 students).
- Jan 2016 Course examiner, Department of Computer Science, Aarhus University. Computational Geometry (Q1+Q2 2015, 10 ECTS), Peyman Afshani (6 students).
- Jan 2016 Course examiner, Department of Computer Science, Aarhus University. Program-



- ming 2 (dProg 2, Q2 2015, 5 ECTS), Gudmund Skovbjerg Frandsen (24 students).
- Jan 2016 Course examiner, Department of Computer Science, Aarhus University. Visualisering og projektkommunikation (2016 Q2, 5 ECTS) Majken Kirkegård Rasmussen (13 students).
- Nov 2015 MSc thesis examiner, Michael Nørskov, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Advisor Jørgen Bang-Jensen.
- Aug 2015 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Algorithms and Data Structures (IMADA DM507, 10 ECTS), Rolf Fagerberg (8 students).
- Aug 2015 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Algorithms and Complexity (IMADA DM508, 5 ECTS), Joan Boyar and Bjarne Toft (1 student).
- Jun 2015 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. DM538 Algorithms and Probability (5 ECTS, 1 student) Lene Monrad Favrholt, DM553 Complexity and Computability (10 ECTS, 1 student) and DM508 Algorithms and Complexity (5 ECTS, 6 students) Joan Boyar.
- Jun 2015 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Algorithms and Data Structures (IMADA DM507, 10 ECTS), Rolf Fagerberg (106 students).
- Mar 2015 Course examiner, Department of Computer Science, Aarhus University. Fysisk Design (2015 Q3, 5 ECTS), Peter Krogh (22 students).
- Mar 2015 Course examiner, Department of Computer Science, Aarhus University. Visualisering og projektkommunikation (ITvap, 2014 Q2, 5 ECTS), Peter Krogh (4 students, reexam).
- Jan 2015 Course examiner, Department of Computer Science, Aarhus University. Visualisering og projektkommunikation (ITvap, 2014 Q2, 5 ECTS), Aviaja Borup (13 students).
- Jan 2015 Course examiner, Department of Computer Science, Aarhus University. Programming 2 (dProg 2, Q2 2014, 5 ECTS), Gudmund Skovbjerg Frandsen (32 students).
- Oct 2014 Course examiner, Department of Computer Science, Aarhus University. Pervasive Computing (OS, Q1 2014, 5 ECTS), Niels Olof Bouvin (14 students).
- Sep 2014 Bachelor project examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense (Summer 2014). Rolf Fagerberg (1 student).
- Jun 2014 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Algorithms and Data Structures (IMADA DM507, 10 ECTS), Rolf Fagerberg (73 students).
- Jun 2014 Course examiner, Department of Computer Science, Aarhus University. Advanced Realtime Graphics Effects (Q4 2014, 5 ECTS), Toshiya Hachisuka (15 students).
- Jun 2014 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Algorithms and Complexity (IMADA DM508, 5 ECTS), Joan Boyar (33 students).
- Jun 2014 Course examiner, Department of Computer Science, Aarhus University. Discrete Computational Geometry (Q3+Q4 2014, 10 ECTS), Peyman Afshani (5 students).
- Jun 2014 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Approximation Algorithms (IMADA DM833, 5 ECTS), Lene Monrad Favrholt (10 students).
- May 2014 Course examiner, Department of Computer Science, Aarhus University. Dynamic Algorithms (Q4 2013, 5 ECTS), Gudmund Skovbjerg Frandsen (1 student).
- May 2014 Study group examiner, Department of Computer Science, Aarhus University. Advisor Toshiya Hachisuka (1 student).

Jan 2014	MSc thesis examiner, Thomas Nørbo Jensen, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Advisor Rolf Fagerberg.
Jan 2014	Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. String Algorithms (IMADA DM823, 5 ECTS), Rolf Fagerberg (4 students).
Jan 2014	Course examiner, Department of Computer Science, Aarhus University. IO Algorithms (Q3+Q4 2013, 10 ECTS), Lars Arge (12 students).
Jan 2014	MSc thesis examiner, Søren Erling Lynnerup, Department of Computer Science, University of Copenhagen. Advisor Pawel Winter.
Jan 2014	BSc project examiner, Niklas Thiemann and Claus Vium, Department of Computer Science, University of Copenhagen. Advisor Pawel Winter.
Jan 2014	Course examiner, Department of Computer Science, Aarhus University. Programming 2 (dProg 2, Q2 2013, 5 ECTS), Gudmund Skovbjerg Frandsen (55 students).
Dec 2013	Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Computer Game Programming IV: Projects (IMADA DM816, 5 ECTS), Rolf Fagerberg (2 students).
Sep 2013	MSc thesis examiner, Thomas Palludan Hargreaves, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Advisor Rolf Fagerberg.
Jun 2013	Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Algorithms and Data Structures (IMADA DM507, 10 ECTS), Rolf Fagerberg (47 students).
Jun 2013	Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Algorithms and Complexity (IMADA DM508, 5 ECTS), Joan Boyar (28 students).
Jun 2013	Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Computer Game Programming III: Physics (IMADA DM815, 5 ECTS), Rolf Fagerberg (6 students).
Jun 2013	Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Approximation Algorithms (IMADA DM833, 5 ECTS), Lene Monrad Favrhøldt (22 students).
Jun 2013	Course examiner, Department of Computer Science, Aarhus University. Dynamic Algorithms (Q4 2013, 5 ECTS), Gudmund Skovbjerg Frandsen (1 student).
Jan 2013	Course examiner, Department of Computer Science, Aarhus University. Computational Geometry (Q1+Q2 2012, 10 ECTS), Peyman Afshani (20 students).
Jan 2013	Course examiner, Department of Computer Science, Aarhus University. Programming 2 (dProg 2, Q2 2012, 5 ECTS), Gudmund Skovbjerg Frandsen (59 students).
Jan 2013	Course examiner, Department of Computer Science, Aarhus University. Operativ Systemer (dOpSys, Q2 2012, 5 ECTS), Erik Ernst (6 students).
Dec 2012	MSc thesis examiner, Stoyan Ivanov Kamburov, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Advisor Rolf Fagerberg.
Aug 2012	Course examiner, Department of Computer Science, Aarhus University. Programming 2 (dProg 2, Q2 2011, 5 ECTS), Gudmund Skovbjerg Frandsen (13 students).
Jun 2012	Bachelor projects examiner, DTU Informatik, Technical University of Denmark (Spring 2012). Phillip Bille and Inge Li Gørtz (5 students).
Jun 2012	Project examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Rolf Fagerberg (1 student).
Jun 2012	Course examiner, Department of Computer Science, Aarhus University. IO Algorithms (Q3+Q4 2012, 10 ECTS), Lars Arge (9 students).
Mar 2012	Course examiner, Department of Mathematics and Computer Science, University

- of Southern Denmark, Odense. Algorithms and Complexity (IMADA DM508, 5 ECTS), Joan Boyar (27 students).
- Jan 2012 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. I/O-Efficient Algorithms and Data Structures (IMADA DM207, 10 ECTS), Rolf Fagerberg (4 students).
- Jan 2012 Course examiner, Department of Computer Science, Aarhus University. Programming 2 (dProg 2, Q2 2011, 5 ECTS), Gudmund Skovbjerg Frandsen (42 students).
- Sep 2011 MSc thesis examiner, Jens Henrik Hertz and Martin Ancher Müller Neiiendam, DTU Informatik, Technical University of Denmark. Advisor Philip Bille and Inge Li Gørtz.
- Aug 2011 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Algoritmer og Datastrukturer (IMADA DM507, 37 ECTS), Lene Monrad Favrhøldt (4 students).
- Aug 2011 MSc thesis examiner, Hjalte Wedel Vildhøj and Søren Vind, DTU Informatik, Technical University of Denmark. Advisor Philip Bille and Inge Li Gørtz.
- Jun 2011 Course examiner, Department of Computer Science, Aarhus University. IO Algorithms (Q3+Q4 2011, 10 ECTS), Lars Arge (21 students).
- Jun 2011 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Algoritmer og Datastrukturer (IMADA DM507, 37 ECTS), Lene Monrad Favrhøldt (11 students).
- Apr 2011 MSc thesis examiner, Jakob Lund, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Advisor Rolf Fagerberg and Kim Skak Larsen.
- Mar 2011 Course examiner, Department of Computer Science, Aarhus University. Functional-Programming Techniques (dTFP, Q3 2011, 5 ECTS), Olivier Danvy (10 students).
- Mar 2011 Course examiner, Department of Computer Science, Aarhus University. Introduction to Functional Programming (dIFP Q1 2010, 5 ECTS), Olivier Danvy (1 student, reexam).
- Jan 2011 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Computer Game Programming III: Physics (IMADA DM815, 5 ECTS), Rolf Fagerberg (11 students).
- Jan 2011 Course examiner, Department of Computer Science, Aarhus University. Programming 2 (dProg 2, Q2 2010, 5 ECTS), Gudmund Skovbjerg Frandsen (35 students).
- Jan 2011 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Discrete Mathematics (IMADA MM524-DM527, 5 ECTS), Daniel Merkle (5 students).
- Oct 2010 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Discrete Mathematics (IMADA MM524-DM527, 5 ECTS), Daniel Merkle (70 students).
- Oct 2010 Course examiner, Department of Computer Science, Aarhus University. Introduction to Functional Programming (dIFP Q1 2010, 5 ECTS), Olivier Danvy (20 students).
- May 2010 MSc thesis examiner, Nikolaj Bytsø, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Advisor Rolf Fagerberg.
- Apr 2010 Course examiner, Department of Computer Science, Aarhus University. Reliable Software Architectures (5 ECTS), Henrik Bærbak Christensen (4 students).
- Jan 2010 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. I/O-Efficient Algorithms and Data Structures (IMADA DM207, 10 ECTS), Rolf Fagerberg (3 students).
- Jan 2010 Course examiner, Department of Computer Science, Aarhus University. Programming 2 (dProg 2, Q2 2009, 5 ECTS), Gudmund Skovbjerg Frandsen (28 students).
- Oct 2009 Course examiner, Department of Computer Science, Aarhus University. Introduc-

- tion to Programming (dIntProg, Q1 2009, 5 ECTS), Michael Caspersen.
- Aug 2009 MSc thesis examiner, Thomas Nordahl Pedersen, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Advisor Lene Monrad Favrholt.
- Aug 2009 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Algorithms and Data Structures (IMADA DM507, 10 ECTS), Lene Monrad Favrholt (5 students).
- Jan 2009 Course examiner, Department of Computer Science, Aarhus University. Programming 2 (dProg 2, Q2 2008, 5 ECTS), Gudmund Skovbjerg Frandsen (78 students).
- Oct 2008 Course examiner, Department of Computer Science, Aarhus University. Introduction to Programming (dIntProg, Q1 2008, 5 ECTS), Michael Caspersen.
- Jun 2008 Course examiner, Department of Computer Science, Aarhus University. IO Algorithms (Q3+Q4 2008, 10 ECTS), Lars Arge (17 students).
- Jun 2008 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. I/O-Efficient Algorithms and Data Structures (IMADA DM808, 10 ECTS), Rolf Fagerberg (4 students).
- Jun 2008 MSc thesis examiner, Torsten Bonde Christiansen, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Advisor Rolf Fagerberg.
- Jan 2008 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Algorithms for Web Indexing and Searching (IMADA DM79, 10 ECTS), Rolf Fagerberg (7 students).
- Jan 2008 Course examiner, Department of Computer Science, Aarhus University. Programming 2 (dProg 2, Q2 2007, 5 ECTS), Gudmund Skovbjerg Frandsen (37 students).
- Jun 2007 Course examiner, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Topics in Algorithmics (IMADA DM69, 10 ECTS), Lene Monrad Favrholt (4 students).
- Jun 2007 Course examiner, Department of Computer Science, Aarhus University. IO Algorithms (Q3+Q4 2007, 10 ECTS), Lars Arge (19 students).
- Oct 2006 Course examiner, Department of Computer Science, University of Copenhagen. The 6th STL Workshop, Jyrki Katajainen (6 students).
- Oct 2006 MSc thesis examiner, Martin Ehmsen, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Advisor Kim Skak Larsen.
- Jul 2006 MSc thesis examiner, Jacob Allerelli, Department of Mathematics and Computer Science, University of Southern Denmark, Odense. Advisor Rolf Fagerberg.
- Jun 2006 Course examiner, Department of Computer Science, Aarhus University. IO Algorithms (Q3+Q4 2006, 10 ECTS), Lars Arge (11 students).
- Jul 2005 Course examiner, Department of Computer Science, Aarhus University. Dynamic Algorithms (Q4 2005, 5 ECTS), Gudmund Skovbjerg Frandsen (21 students).
- Jun 2005 Course examiner, Department of Computer Science, Aarhus University. IO Algorithms (Q3+Q4 2005, 10 ECTS), Lars Arge (12 students).
- Jul 2004 Course examiner, Department of Computer Science, Aarhus University. Dynamic Algorithms (Q4 2004, 5 ECTS), Gudmund Skovbjerg Frandsen (17 students).

## PhD Committee

- Apr 2018 PhD committee member, Hicham El Zein, University of Waterloo, Ontario, Canada.
- Sep 2014 PhD opponent, Jan Bulanek, Charles University, Prague, Czech Republic.
- Nov 2011 PhD committee member, Djamel Belazzougui, LIAFA, Université Paris Diderot–Paris 7, Paris.
- Oct 2011 PhD committee member, Andrea Campagna, IT University of Copenhagen.

Dec 2008	PhD committee member, Deepak Ajwani, Max Planck Institute for Computer Science, Saarbrücken, Germany.
Aug 2008	PhD committee member, Karim Douieb, Université Libre de Bruxelles, Belgium.
Sep 2006	PhD committee member, Anders Gidestam, Chalmers Technical University, Goteborg, Sweden.

## Grant Reviewer

Jul 2020	Swiss National Science Foundation.
Mar 2019	United States - Israel Binational Science Foundation.
May 2017	German Research Foundation (DFG), Excellence Strategy by the German Federal and State Governments to Promote Science and Research at German Universities, Research panel on Engineering Sciences.
Dec 2016	German Research Foundation (DFG), Priority Programme "Algorithms for Big Data" (SPP 1736/2).
Oct 2014	The Research Council of Norway, ICT Panel 1, FRINATEK Applications.
Dec 2013	German Research Foundation (DFG), Priority Programme "Algorithms for Big Data" (SPP 1736).
Oct 2013	The Research Council of Norway, ICT Panel 2, FRINATEK Applications.
Oct 2012	The Research Council of Norway, ICT Panel 1, FRINATEK Applications.

## Journal Reviewer

- ACM Journal of Experimental Algorithmics 2016, 2015, 2012, 2000, 1998
- ARS MATHEMATICA CONTEMPORANEA 2021, 2020
- Algorithmica 2020, 2017, 2015, 2014, 2013, 2012, 2011, 2010, 2008, 2005, 2004, 2002, 2001, 2000, 1999, 1998
- Applicable Algebra in Engineering, Communication and Computing 2003
- Applied Computing and Informatics 2015
- ETRI Journal 2004
- Fundamenta Informaticae 2014
- Higher-Order and Symbolic Computation 2003, 1999
- Information Processing Letters 2021, 2016, 2014, 2009, 2008, 2003, 2002, 2000
- Information and Computation 1998
- International Journal of Computational Geometry and Applications 2012, 2011
- Journal of Algorithms 1998
- Journal of Algorithms - Algorithms in Cognition, Informatics and Logic 2008
- Journal of Automata, Languages and Combinatorics 2003
- Journal of Combinatorial Optimization 2013
- Journal of Computational Biology 2016
- Journal of Computational Geometry 2020
- Journal of Discrete Algorithms 2011, 2000
- Journal of Functional Programming 1998
- Journal of Parallel and Distributed Computing 1998, 1997
- Journal of Systems and Software 2003
- Journal of the Association for Computing Machinery 1997
- Nordic Journal of Computing 2014, 1999
- PLOS ONE 2020



- SIAM Journal of Computing 2012, 2007, 2004
- Software: Practice and Experience 2006
- The Computer Journal 2005
- Theoretical Computer Science 2006, 2004, 2000
- Transactions on Algorithms 2017, 2013
- Transportation Science 2013

## Conference Reviewer

- 2022 24th Workshop on Algorithm Engineering and Experiments (ALENEX)  
5th SIAM Symposium on Simplicity in Algorithms (SOSA)  
33rd Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)
- 2021 32th Annual International Symposium on Algorithms and Computation (ISAAC)  
23rd International Symposium on Fundamentals of Computation Theory (FCT)  
53rd Annual ACM Symposium on Theory of Computing (STOC)  
29th Annual European Symposium on Algorithms (ESA)
- 2020 28th Annual European Symposium on Algorithms (ESA)  
17th Scandinavian Workshop on Algorithm Theory (SWAT)  
37th Annual Symposium on Theoretical Aspects of Computer Science (STACS)  
31st Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)  
52nd Annual ACM Symposium on Theory of Computing (STOC)
- 2019 30th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)  
46th International Colloquium on Automata, Languages, and Programming (ICALP)  
30th International Workshop on Combinatorial Algorithms (IWOCA)  
36th Annual Symposium on Theoretical Aspects of Computer Science (STACS)
- 2018 45th International Colloquium on Automata, Languages, and Programming (ICALP)  
29th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)
- 2017 28th Annual International Symposium on Algorithms and Computation (ISAAC)  
44th ACM SIGPLAN Symposium on Principles of Programming Languages (POPL)  
28th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)  
43rd International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM)
- 2016 57th Annual Symposium on Foundations of Computer Science (FOCS)  
35th ACM SIGMOD-SIGACT-SIGART Symposium on Principles of Database Systems (PODS)  
48th Annual ACM Symposium on Theory of Computing (STOC)  
33rd Annual Symposium on Theoretical Aspects of Computer Science (STACS)  
27th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)  
18th Workshop on Algorithm Engineering and Experiments (ALENEX)
- 2015 23rd Annual European Symposium on Algorithms (ESA)  
56th Annual Symposium on Foundations of Computer Science (FOCS)  
9th International Frontiers of Algorithmics Workshop (FAW)  
17th Workshop on Algorithm Engineering and Experiments (ALENEX)  
31st European Workshop on Computational Geometry (EuroCG)  
26th International Workshop on Combinatorial Algorithms (IWOCA)
- 2014 14th Scandinavian Workshop on Algorithm Theory (SWAT14)

- 41st International Colloquium on Automata, Languages, and Programming (ICALP)  
25th Annual International Symposium on Algorithms and Computation (ISAAC)  
25th International Workshop on Combinatorial Algorithms (IWOCA)  
39th International Symposium on Mathematical Foundations of Computer Science (MFCS)  
25th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)
- 2013 21st Annual European Symposium on Algorithms (ESA)  
54th Annual Symposium on Foundations of Computer Science (FOCS)  
13th International Workshop on Algorithms and Data Structures (WADS)  
40th International Colloquium on Automata, Languages, and Programming (ICALP)  
32nd ACM SIGMOD-SIGACT-SIGART Symposium on Principles of Database Systems (PODS)  
27th IEEE International Parallel & Distributed Processing Symposium (IPDPS)  
24th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)  
19th International Symposium on Fundamentals of Computation Theory (FCT)  
24rd International Workshop on Combinatorial Algorithms (IWOCA)  
7th International Conference on Language and Automata Theory and Applications (LATA)
- 2012 23th Annual International Symposium on Algorithms and Computation (ISAAC)  
20th Annual European Symposium on Algorithms (ESA)  
53rd Annual Symposium on Foundations of Computer Science (FOCS)  
39th International Colloquium on Automata, Languages, and Programming (ICALP)  
31st ACM SIGMOD-SIGACT-SIGART Symposium on Principles of Database Systems (PODS)  
10th Latin American Symposium on Theoretical Informatics (LATIN)  
23rd Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)  
14th Workshop on Algorithm Engineering and Experiments (ALENEX)  
23rd International Workshop on Combinatorial Algorithms (IWOCA)
- 2011 38th International Colloquium on Automata, Languages, and Programming (ICALP)  
30th ACM SIGMOD-SIGACT-SIGART Symposium on Principles of Database Systems (PODS)  
10th International Symposium on Experimental Algorithms (SEA)  
6th International Computer Science Symposium in Russia (CSR)  
43rd Annual ACM Symposium on Theory of Computing (STOC)  
22nd Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)  
22nd International Workshop on Combinatorial Algorithms (IWOCA)  
3rd Workshop on Massive Data Algorithmics (MASSIVE)
- 2010 21th Annual International Symposium on Algorithms and Computation (ISAAC)  
12th Workshop on Algorithm Engineering and Experiments (ALENEX)  
21st Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)  
9th Latin American Symposium on Theoretical Informatics (LATIN)  
12th Scandinavian Workshop on Algorithm Theory (SWAT)
- 2009 41st Annual ACM Symposium on Theory of Computing (STOC)  
50th Annual Symposium on Foundations of Computer Science (FOCS)  
17th Annual European Symposium on Algorithms (ESA)  
20th Annual International Symposium on Algorithms and Computation (ISAAC)  
11th Workshop on Algorithm Engineering and Experiments (ALENEX)  
20th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)  
36th International Colloquium on Automata, Languages, and Programming (ICALP)

- 1st Workshop on Massive Data Algorithmics (MASSIVE)  
8th International Symposium on Experimental Algorithms (SEA)  
21st ACM Symposium on Parallelism in Algorithms and Architectures (SPAA)  
11th International Workshop on Algorithms and Data Structures (WADS)
- 2008 15th Scandinavian Workshop on Algorithm Theory (SWAT16)  
11th Scandinavian Workshop on Algorithm Theory (SWAT08)  
19th Annual Symposium on Combinatorial Pattern Matching (CPM08)  
Computability in Europe 2008 - Logic and Theory of Algorithms (CiE)  
40th Annual ACM Symposium on Theory of Computing (STOC)  
IPDPS 2008 - IEEE International Parallel & Distributed Processing Symposium (IPDPS)  
7th International Workshop on Experimental Algorithms (WEA)
- 2007 15th Annual European Symposium on Algorithms (ESA)  
34th International Colloquium on Automata, Languages, and Programming (ICALP)  
6th International Workshop on Experimental Algorithms (WEA)  
27th Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS)  
18th Annual International Symposium on Algorithms and Computation (ISAAC)  
International Workshop on Algorithmic Topics in Constraint Programming (cancelled) (ATCP)  
18th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)  
24th Annual Symposium on Theoretical Aspects of Computer Science (STACS)  
10th International Workshop on Algorithms and Data Structures (WADS)
- 2006 47th Annual Symposium on Foundations of Computer Science (FOCS)  
14th Annual European Symposium on Algorithms (ESA)  
31st International Symposium on Mathematical Foundations of Computer Science (MFCS)  
33rd International Colloquium on Automata, Languages, and Programming (ICALP)  
17th Annual Symposium on Combinatorial Pattern Matching (CPM)  
25th ACM SIGMOD-SIGACT-SIGART Symposium on Principles of Database Systems (PODS)  
17th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)  
10th Scandinavian Workshop on Algorithm Theory (SWAT)
- 2005 32nd International Colloquium on Automata, Languages, and Programming (ICALP)  
9th International Workshop on Algorithms and Data Structures (WADS)  
20th IEEE Conference on Computational Complexity (COMPLEXITY05)  
7th Workshop on Algorithm Engineering and Experiments (ALENEX)  
13th Annual European Symposium on Algorithms (ESA05)  
16th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)  
37th Annual ACM Symposium on Theory of Computing (STOC)  
4th International Workshop on Efficient and Experimental Algorithms (WEA)
- 2004 21st Annual Symposium on Theoretical Aspects of Computer Science (STACS)  
15th Annual Symposium on Combinatorial Pattern Matching (CPM)  
12th Annual European Symposium on Algorithms (ESA)  
24th Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS)  
3rd International Conference on Fun With Algorithms (FUN)  
31st International Colloquium on Automata, Languages, and Programming (ICALP)  
6th Latin American Symposium on Theoretical Informatics (LATIN)

- 15th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)  
9th Scandinavian Workshop on Algorithm Theory (SWAT)
- 2003 11th Annual European Symposium on Algorithms (ESA)  
International Conference on Software Engineering and Formal Methods (SEFM)  
20th Annual Symposium on Theoretical Aspects of Computer Science (STACS)  
5th Workshop on Algorithm Engineering and Experiments (ALENEX)  
8th International Workshop on Algorithms and Data Structures (WADS)
- 2002 43rd Annual Symposium on Foundations of Computer Science (FOCS)  
10th Annual European Symposium on Algorithms (ESA)  
8th Scandinavian Workshop on Algorithm Theory (SWAT)  
13th Annual Symposium on Combinatorial Pattern Matching (CPM)  
34th Annual ACM Symposium on Theory of Computing (STOC)  
11th Euromicro Conference on Parallel Distributed and Networking based Processing, Special session on Memory Hierarchies (PDP)
- 2001 42nd Annual Symposium on Foundations of Computer Science (FOCS)  
28th International Colloquium on Automata, Languages and Programming (ICALP)  
9th Annual European Symposium on Algorithms (ESA)
- 2000 8th Annual European Symposium on Algorithms (ESA)  
7th Scandinavian Workshop on Algorithm Theory (SWAT)
- 1999 Workshop on Algorithmic Aspects of Advanced Programming Languages (WAAAPL)  
19th Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS)  
3rd Workshop on Algorithm Engineering (WAE)  
16th Annual Symposium on Theoretical Aspects of Computer Science (STACS)
- 1998 2nd Workshop on Algorithm Engineering (WAE)  
18th International Conference on Foundations of Software Technology & Theoretical Computer Science (FSTTCS)  
6th Annual European Symposium on Algorithms (ESA)  
25th International Colloquium on Automata, Languages, and Programming (ICALP)  
15th Annual Symposium on Theoretical Aspects of Computer Science (STACS)
- 1996 4th Annual European Symposium on Algorithms (ESA)  
5th Scandinavian Workshop on Algorithm Theory (SWAT)  
ACM SIGPLAN International Conference on Functional Programming (ICFP)  
Theory and Practice of Informatics – 23rd Seminar on Current Trends in Theory and Practice of Informatics (SOFSEM)
- 1995 ACM SIGPLAN Workshop on Partial Evaluation and Semantics-Based Program Manipulation (PEPM)  
Theory and Practice of Software Development. 6th International Joint Conference CAAP/FASE (TAPSOFT)
- 1994 4th Scandinavian Workshop on Algorithm Theory (SWAT)  
21st International Colloquium on Automata, Languages and Programming (ICALP)