

# Curriculum Vitae

Lene Monrad Favrholt

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## Personal Data

Born in Copenhagen, September 30, 1971  
Danish citizen, married to Peter Aagaard Favrholt, no children

## Degrees

- July 2002: Ph.D. in Computer Science, University of Southern Denmark  
Thesis: On-Line Problems with Restricted Input  
Advisor: Joan Boyar
- Sep 1998: M.S. in Computer Systems Engineering, Odense University  
Thesis: Edge Coloring of Graphs  
Advisor: Bjarne Toft
- Sep 1995: B.S. in Computer Systems Engineering, Odense University  
Thesis: Mapping Strategy for Mobile Robot  
Advisor: Niels Jul Jacobsen

## Positions

- Jan 2007 – present: Associate professor, University of Southern Denmark, Odense
- Aug 2006 – July 2009: Professor II (20% position), University of Bergen, Norway
- Sep 2003 – Dec 2006: Assistant professor, University of Southern Denmark, Odense
- Jan 2003 – Aug 2003: Post doc, University of Copenhagen
- Aug 2002 – Dec 2002: Post doc, University of Southern Denmark, Odense
- May 2002 – July 2002: Research assistant, University of Southern Denmark, Odense
- Oct 1998 – Apr 1999: Research assistant, University of Southern Denmark, Odense

## Academic Service

Member of program committees:

ESA 2006: 14th Annual European Symposium on Algorithms, Track B

MAPSP 2007: Eighth Workshop on Models and Algorithms for Planning and Scheduling Problems

Member of organizing committees:

OLA 2004: Workshop on On-Line Algorithms

SWAT 2004: Scandinavian Workshop on Algorithm Theory

Referee for:

Acta Inf., ALNEX, APJOR, Asia Pacific J. of OR, CIAC, DAM, ESA, ESCAPE, FCT, ICALP,  
ICDT, IJFCS, IPL, ISAAC, J. of Complexity, J. of Scheduling, ORL, RECOMB, SICOMP, SODA,  
STACS, SWAT, TCS, WAOA, WEA

Official Internal Appointment at University of Southern Denmark:

Member of the Academic Council for the Faculty of Science, 2009–2012.

## Research Visits

Oct 13 – 17, 2007: Leah Epstein, University of Haifa, and Asaf Levin, Hebrew University  
Feb 1 – July 31, 2004: Jens Lagergren, Kungliga Tekniska Högskolan, Stockholm, Sweden  
Sep 9 – 15, 2003: Janos Csirik and Csanad Imreh, University of Szeged, Hungary  
Nov 24 – Dec 1, 2001: Rob van Stee and Susanne Albers, Universität Freiburg, Germany  
May 21 – June 2, 2001: Leah Epstein, School of Computer Sciences, The Interdisciplinary  
Center, Herzliya, Israel, and Yossi Azar, Tel Aviv University, Israel  
Oct 2000 – March 2001: Susanne Albers, Universität Dortmund, Germany

## Teaching Experience

2009: Assistant Professor Pedagogical supervisor  
April 2006 – present: National external examiner in Computer Science  
December 2005: Assistant Professor Pedagogical Certificate

I have taught the following courses. For those marked with an \* I gave only a few of the lectures.

Algorithms and Data Structures, Advanced Algorithms Techniques\*, Biological Sequence Analysis, Introduction to Computer Science\*, Algorithmic Subjects, Evolutionary Trees, Analysis of Large-Scale Datasets in Genomics and Proteomics\*, Recent Research Results in Combinatoric Optimization and Algorithmics\*, Discrete Mathematics

I have supervised three bachelor projects and four master theses.

## Talks

### Workshops/Conferences:

19th International Symposium on Algorithms and Computation, 2008  
10th Scandinavian Workshop on Algorithm Theory, 2006  
ACM-SIAM Symposium on Discrete Algorithms, 2005  
5th Conference on Algorithms and Complexity, 2003  
6th Workshop on Models and Algorithms for Planning and Scheduling Problems, 2003  
10th Workshop on Applied/Advanced Research in Combinatorial Optimization, 2003  
8th Annual International Computing and Combinatorics Conference, 2002  
Dagstuhl Seminar on Online Algorithms, 2002  
34th ACM Symposium on Theory of Computing, 2002  
8th Workshop on Applied/Advanced Research in Combinatorial Optimization, 2002  
20th Conf. on the Foundations of Software Technology and Theoretical Computer Science, 2000

### Seminars:

University of Bergen, June 2008, “Comparing First-Fit and Next-Fit for Online Edge Coloring”  
University of Copenhagen, March 2008, “RAGE-BLAST: Resource Adaptive Grid Execution of BLAST”  
University of Bergen, August 2006, “Scheduling Jobs on Grid Processors”  
University of Southern Denmark, May 2003, “Quality Measures for On-Line Algorithms”  
Carleton University, Ottawa, Canada, May 2002, “On-Line Dual Bin Packing in Variable-Sized Bins”  
Århus University, Denmark, February 2002, “Paging with Locality of Reference”

## Publications

### Peer reviewed international journal articles

- [1] J. Boyar and L. M. Favrholt. Scheduling Jobs on Grid Processors *Algorithmica* (To appear). (Preliminary version mentioned below.)
- [2] J. Boyar, L. M. Favrholt, and K. S. Larsen. The Relative Worst Order Ratio Applied to Paging. *Journal of Computer and System Sciences*, 73: 818-843, 2007. (Preliminary version mentioned below.)
- [3] J. Boyar and L. M. Favrholt. The Relative Worst Order Ratio for On-Line Algorithms. *Transactions on Algorithms*, 3(2), 2007. (Preliminary version mentioned below.)
- [4] J. Boyar, L. Epstein, L.M. Favrholt, J.S. Kohrt, K.S. Larsen, M.M. Pedersen, S. Wøhlk. The Maximum Resource Bin Packing Problem. *Theoretical Computer Science*, 362(1-3):127-139, 2006. (Preliminary version mentioned below.)
- [5] L. Epstein, L. M. Favrholt, J. S. Kohrt. Separating Online Scheduling Algorithms with the Relative Worst Order Ratio. *Journal of Combinatorial Optimization*, 12(4): 362-385, 2006.
- [6] S. Albers, L. M. Favrholt, and O. Giel. On Paging with Locality of Reference. *Journal of Computer and System Sciences* 70: 145-175, 2005. (Preliminary version mentioned below.)
- [7] L. Epstein and L. M. Favrholt. Optimal Non-Preemptive Semi-Online Scheduling to Minimize Makespan on Two Related Machines. *Journal of Algorithms* 57(1): 49-73, 2005. (Preliminary version mentioned below.)
- [8] J. Boyar, L. M. Favrholt, K. S. Larsen, and M. N. Nielsen. Extending the Accommodating Function. *Acta Informatica*, 40: 3-35, 2003. (Preliminary version mentioned below.)
- [9] E. Bach, J. Boyar, L. Epstein, L. M. Favrholt, T. Jiang, K. S. Larsen, G.-H. Lin, and R. van Stee. Tight Bounds on the Competitive Ratio on Accommodating Sequences for the Seat Reservation Problem. *Journal of Scheduling* 6(2): 131-147, 2003.
- [10] L. M. Favrholt and M. N. Nielsen. On-Line Edge-Coloring with a Fixed Number of Colors. *Algorithmica* 35(2): 176-191, 2003. (Preliminary version mentioned below.)
- [11] L. Epstein and L. M. Favrholt. On-Line Maximizing the Number of Items Packed in Variable-Sized Bins. *Acta Cybernetica* 16: 57-66, 2003. (Preliminary version mentioned below.)
- [12] Y. Azar, J. Boyar, L. Epstein, L. M. Favrholt, K. S. Larsen, and M. N. Nielsen. Fair versus Unrestricted Bin Packing. *Algorithmica* 34(2): 181-196, 2002.
- [13] L. Epstein and L. M. Favrholt. Optimal Preemptive Semi-Online Scheduling to Minimize Makespan on Two Related Machines. *Operations Research Letters* 30(4): 269-275, 2002.
- [14] J. Boyar, L. M. Favrholt, K. S. Larsen, and M. N. Nielsen. The Competitive ratio for On-Line Dual Bin Packing with Restricted Input Sequences. *Nordic Journal of Computing* 8(4): 463-472, 2001.

### Peer reviewed international conference articles

- [15] M. R. Ehmsen, L. M. Favrholt, J. S. Kohrt, and R. Mihai. Comparing First-Fit and Next-Fit for Online Edge Coloring. *19th International Symposium on Algorithms and Computation*, pages 89-99, 2008
- [16] J. Boyar and L. M. Favrholt. Scheduling Jobs on Grid Processors. In *SWAT 2006: 10th Scandinavian Workshop on Algorithm Theory*, LNCS 4059, pages 17-28.

- [17] J. Boyar, L. Epstein, L.M. Favrholdt, J.S. Kohrt, K.S. Larsen, M.M. Pedersen, S. Wøhlk. The Maximum Resource Bin Packing Problem. In *FCT 2005: 5th International Symposium on Fundamentals of Computation Theory*, pages 397-408.
- [18] J. Boyar, L. M. Favrholdt, and K. S. Larsen. The Relative Worst Order Ratio Applied to Paging. In *SODA 2005: 16th ACM-SIAM Symposium on Discrete Algorithms*, pages 718-727.
- [19] J. Boyar and L. M. Favrholdt. The Relative Worst Order Ratio for On-Line Algorithms. In *CIAC 2003: 5th Italian Conference on Algorithms and Complexity*. LNCS 2653: 58-69, Springer-Verlag, 2003.
- [20] S. Albers, L. M. Favrholdt, and O. Giel. On Paging with Locality of Reference. In *STOC 2002: 34th ACM Symposium on Theory of Computing*, pages 258–267.
- [21] L. Epstein and L. M. Favrholdt. Optimal Non-Preemptive Semi-Online Scheduling to Minimize Makespan on Two Related Machines. In *MFCS 2002: 27th International Symposium on Mathematical Foundations of Computer Science*, pages 245–256.
- [22] J. Boyar, L. M. Favrholdt, K. S. Larsen, and M. N. Nielsen. Extending the Accommodating Function. *COCOON 2002: 8th Annual International Conference on Computing and Combinatorics*, LNCS 2387, pages 87–96.
- [23] L. Epstein and L. M. Favrholdt. On-Line Maximizing the Number of Items Packed in Variable-Sized Bins. *COCOON 2002: 8th Annual International Conference on Computing and Combinatorics*, LNCS 2387, pages 467–476.
- [24] Y. Azar, J. Boyar, L. M. Favrholdt, K. S. Larsen, and M. N. Nielsen. Fair versus Unrestricted Bin Packing. In *SWAT 2000: Seventh Scandinavian Workshop on Algorithm Theory* volume 1851 of LNCS, pages 200–213, 2000.
- [25] L. M. Favrholdt and M. N. Nielsen. On-Line Edge-Coloring with a Fixed Number of Colors. *FST TCS 2000: 20th Conference on the Foundations of Software Technology and Theoretical Computer Science*, LNCS 1974, pages 106–116.

#### Technical reports

- [26] L. M. Favrholdt, M. Stiebitz, and B. Toft. Graph Edge Colouring: Vizing’s Theorem and Goldberg’s Conjecture. IMADA preprint PP-2006-20, University of Southern Denmark, October 2006. <http://bib.mathematics.dk/preprint.php?lang=en&id=IMADA-PP-2006-20>
- [27] L. M. Favrholdt and J. Boyar. RAGEBLAST: Resource Adaptive Grid Execution of BLAST. IMADA preprint PP-2008-2, University of Southern Denmark, February 2008. <http://bib.mathematics.dk/preprint.php?lang=en&id=IMADA-PP-2008-02>