

Magnús Már Halldórsson

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Research Interests

Algorithms, Wireless communication, Networks and Distributed Computing, Combinatorics, Bioinformatics.

Education

- Rutgers University** New Brunswick, NJ
Ph.D. in Computer Science, September 1986 to June 1991
Thesis title: *Frugal Methods for the Independent Set and Graph Coloring Problems*
Thesis advisor: Prof. Ravi Boppana
- University of Oregon** Eugene, OR
B.S. in Computer Science, and in Mathematics, September 1982 to June 1985

Experience

Academic

- School of Computer Science, Reykjavik University** Reykjavik
Professor, August 2007 –
- Department of Computer Science, University of Iceland** Reykjavik
Professor, Dec 2001 – July 2007
- Science Institute** Reykjavik
Research Professor, June 1998 – December 2000
- Science Institute** Reykjavik
Research Associate Professor, July 1995 – May 1998
- Japan Advanced Institute of Science and Technology** Ishikawa, Japan
Visiting Associate Professor, April 1992 – March 1995
- Tokyo Institute of Technology** Tokyo, Japan
Visiting Assistant Professor, August 1991 – March 1992

Industry

- Iceland Genomics Corp. (UVS)** Reykjavik
Director of Informatics, Jan 2001 – Feb 2004
- Kristjan O Skagfjord** Reykjavik
Software Consultant, June 1985 – August 1986, and summers of 1984, 1987

Visiting and Affiliate Appointments

- Research Institute for Mathematical Sciences** Kyoto, Japan
Visiting Professor, Dec. 2008 – March 2009
- Graduate School of Informatics, Kyoto University** Kyoto, Japan
Visiting Professor, April – June 2007
- Department of Information Science, Tokyo Institute of Technology** Tokyo, Japan
Visiting Professor, December 2004 – March 2005

Graduate School of Informatics, Kyoto University
Visiting Professor, July – December 1999

Department of Computer Science, University of Iceland
Adjunct, Sept 1997 – Dec 2001

Institutt for Informatikk, University of Bergen
Adjunct Professor II, Feb 1997 – July 2000

Max Planck Institut fuer Informatik
Visiting Scientist, May – June 1995

IBM Japan, Tokyo Research Laboratory, Computer Science Institute.
Visiting Scientist, April 1995

AT&T Research
Visiting Researcher, February 1992, one week.

Reykjavik

Bergen, Norway

Saarbruecken, Germany

Kanagawa, Japan

Murray Hill, NJ

Courses taught

Reykjavik University

Effective Programming and Problem Solving Spring '10

Algorithms and Data structures Fall '07-'09

Analysis of Algorithms Spring '08

Distributed Algorithms Fall '09, graduate level

University of Iceland

Analysis of Algorithms Spring '96, '98 - '04, '06-'07

Computer Organization Fall '02 - '06

Computer Science I Fall '05 - '06

Security and Cryptography Spring '97, '98, '00.

Compilers Fall '02

Advanced Algorithms Fall '03, graduate level

Randomized Algorithms Spring '06, reading course, graduate level

Logic and Programming Fall '96

Tokyo Institute of Technology

Spring '05 Graduate course on *Approximation algorithms*.

Kyoto University

Fall '99 Graduate seminar course on *Approximation algorithms*.

JAIST

Advanced course on algorithm theory Fall '94

Discrete mathematics Spring '92 - '94 (co-taught)

Rutgers University

Discrete Structures II Spring '91

Discrete Structures I Summer '88

Introduction to Computers Teaching assistant, Fall '86, Spring '87

Software Engineering Teaching assistant, Fall '87, Spring '88

Reykjavik

Reykjavik

Tokyo, Japan

Kyoto, Japan

Ishikawa, Japan

New Brunswick, NJ

Courses developed

Effective Programming and Problem Solving Reykjavik Univ., Spring '10

Problem Solving Reykjavik Univ., Fall '09 (with a group of four)

Security and Cryptography University of Iceland, Spring '97

All of the graduate courses listed

Students Advised

- 2009 Elena Losievskaja, Ph.D., Reykjavik University.
- 2009 Unnar Th. Bachmann, M.S., Reykjavik University.
- 2009 Enrico Rossomando, M.S., University of Salerno.
- 2006 Ragnar Karlsson, M.S., University of Iceland.
- 2005 Haukur Thorgeirsson, M.S., University of Iceland.
- 2005 Ymir Vigfusson, B.S. honors project, University of Iceland.

Ph.D. Committee Membership and Evaluation

- 2008 Pascal Rickenbacher, ETH Zurich (committee member).
- 2007 Gwenaël Joret, Université Libre de Bruxelles (committee member).
- 2004 Petteri Sevon, Helsinki University (evaluator).
- 2004 Daniel Kral', Charles University (opponent).
- 2001 Anna Östlin, Lund University (opponent).

Professional Activities

Managing editor Discrete Mathematics and Theoretical Computer Science, dmtcs.loria.fr, March 2004 – .

Member of evaluation board Research Fund, Icelandic Research Council, 2003–2006, Informatics Fund 2003, 2004, Technology Fund, 2002–2003.

Director Icelandic Center of Excellence in Theoretical Computer Science, April 2005 – .

Head Laboratory of Computer Science Research, Engineering Research Institute, University of Iceland, April 2004 – March 2007.

Member Scientific Committee, University of Iceland, January 2006 – February 2007.

Invited Plenary Talks

- 2010 10th Nordic Combinatorics Conference, Reykjavik, May 2010.
- 2006 Autumn School, New Horizons in Computing, Nagoya, Japan, November 2006.
- 2006 Conference on New Horizons in Computing, Tokyo, Japan, March 2006.
- 2004 29th International Symposium on Mathematical Foundations of Computer Science (MFCS), Prague, Czech Republic, August 2004.
- 1998 1st International Workshop on Approximation Algorithms (APPROX), workshop, Aalborg, Denmark, June 18-19, 1998.
- 1993 16th Symposium on Information Theory and Its Application (SITA), Kanazawa, Oct 1993.

Awards

- 2010 Reykjavik University Research Award (first awardee)
- 2001 Young Scientist Award of the Icelandic Research Council (RANNIS).
- 1998 Carl Erik-Fröberg Prize for a young author of a distinguished paper published in the Nordic Journal of Computing in 1994-96.
- 1992 *Best Paper Award* at the 3rd International Symposium of Algorithms and Computation (ISAAC) in Nagoya, Japan (sole winner).

Conference Organization

Program Committee Chair European Symposium on Algorithms (ESA), Track A, 2011; New Horizons in Computing (NHC) 2005 (co-chair); Scandinavian Workshop on Algorithm Theory (SWAT) 2000.

Conference Chair (joint) International Conference on Automata, Languages and Programming (ICALP) '08, SWAT '96.

Program Committee Member Int'l Workshop on Approximation Algorithms (APPROX) 2010, 2009, 2006, 1998; FUN in Algorithms 2010; Int'l Conference on Distributed Computing and Networking (ICDCN) 2009; AlgoSensors 2008; Int'l Symposium on Algorithms and Computation (ISAAC) 2007; Int'l Workshop on Graph-Theoretic Concepts in Computer Science (WG) 2007; European Symposium on Algorithms (ESA) 2006; SIAM-ACM Symposium on Discrete Algorithm (SODA) 2005; Algorithms for Wireless, Mobile, Ad Hoc and Sensor Networks (W-MAN) 2005; AlgorithmS for Wireless And mobile Networks (A_SWAN) 2004; SWAT 2004, 1996; Foundations on Software Technology and Theoretical Computer Science (FSTTCS) '03; Foundations of Computation Theory (FCT) '03; WADS '01; NordSec '00.

Organizing Committee Member MatchUp Workshop 2008, Nordic Workshop on Secure IT Systems (NordSec), 2007 European Conference on Operational Research (EURO XXI) 2006, Scandinavian Symposium on Chemometrics (SSC 9) 2005.

Steering Committee Member SWAT, March 2003 –

Workshop Founder Workshop on Realistic Algorithmic Models for Wireless Networks.

List of Publications

Refereed Journal Publications

1. Ravi B. Boppana and Magnús M. Halldórsson. Approximating maximum independent sets by excluding subgraphs. *BIT*, 32(2):180–196, June 1992.
2. Magnús M. Halldórsson. A still better performance guarantee for approximate graph coloring. *Information Processing Letters*, 45:19–23, 25 January 1993.
3. Magnús M. Halldórsson. Approximating the minimum maximal independence number. *Information Processing Letters*, 46:169–172, 25 June 1993.
4. Esther Arkin, Magnús M. Halldórsson, and Refael Hassin. Approximating the tree and tour covers of a graph. *Information Processing Letters*, 47:275–282, 18 October 1993.
5. Magnús M. Halldórsson and Mario Szegedy. Lower bounds for on-line graph coloring. *Theoretical Computer Science*, 130:163–174, August 1994.
6. Magnús M. Halldórsson and Jaikumar Radhakrishnan. Improved approximations of bounded-degree independent sets via subgraph removal. In a special issue of *Nordic J. Computing*, 1(4):475–492, Winter 1994. Received the *Carl-Erik Fröberg Award*.
7. Magnús M. Halldórsson and Jaikumar Radhakrishnan. Greed is good: approximating independent sets in sparse and bounded-degree graphs. *Algorithmica* 18:145–163, 1997.
8. Magnús M. Halldórsson. Parallel and online graph coloring. *Journal of Algorithms*, 23:265–280, 1997.
9. Magnús M. Halldórsson and Hoong-Chuin Lau. Low-degree Graph Partitioning via Local Search with Applications to Constraint Satisfaction, Max Cut, and 3-Coloring. *Journal of Graph Algorithms and Applications*, 1(3):1–13, Nov. 1997.
10. Amotz Bar-Noy, Mihir Bellare, Magnús M. Halldórsson, Hadas Shachnai, and Tami Tamir. On Chromatic Sums and Distributed Resource Allocation. *Information and Computation*, 140(2), February 1998.
11. Magnús M. Halldórsson, Shuichi Ueno, Hiroshi Nakao, and Yoji Kajitani. Approximating Steiner trees in graphs with restricted weights. *Networks* 31(4), 283–292, 1998.
12. Magnús M. Halldórsson, Kazuo Iwano, Naoki Katoh, and Takeshi Tokuyama. Finding Subsets Maximizing Minimum Structures. *SIAM Journal of Discrete Math* 12(3), 342–359, 1999.
13. Amotz Bar-Noy, Magnús M. Halldórsson, Guy Kortsarz. A Matched Approximation Bound for the Sum of a Greedy Coloring. *Information Processing Letters* 71, 135–140, 1999.
14. Tatsuya Akutsu and Magnús M. Halldórsson. On the approximation of largest common point sets and largest common subtrees. *Theoretical Computer Science* 233(1-2), 33–50, 17 Dec 1999.
15. Magnús M. Halldórsson, Jan Kratochvíl, and Jan Arne Telle. Independent sets with domination constraints. *Discrete Applied Mathematics* 99(1-3), 39–54, 17 Dec 1999.
URL: <http://www.elsevier.nl/locate/jnlmr/05267>
16. Magnús M. Halldórsson. Online coloring known graphs. *Electronic Journal of Combinatorics*, Feb 2000. URL: <http://www.combinatorics.org>
17. Magnús M. Halldórsson. Approximations of Weighted Independent Set and Hereditary Subset Problems. *Journal of Graph Algorithms and Applications*, 4(1), 1–16, 2000.
18. Amotz Bar-Noy, Magnús M. Halldórsson, Guy Kortsarz, Ravit Salman, and Hadas Shachnai. Sum Multi-Coloring of Graphs. *Journal of Algorithms* 37, 422–450, 2000.
19. Magnús M. Halldórsson, Jan Kratochvíl, and Jan Arne Telle. Mod-2 Independence and Domination in Graphs. *International Journal on Foundations of Computer Science* 11, 355–363, September 2000.
20. Geir Agnarsson, Raymond Greenlaw, Magnús M. Halldórsson. On Powers of Chordal Graphs and Their Colorings. *Congressus Numerantium*, 142–147, 2000.

21. Barun Chandra and Magnús M. Halldórsson. Approximation Algorithms for Dispersion Problems. *Journal of Algorithms*, **38**(2), 438–465, February 2001.
22. Barun Chandra and Magnús M. Halldórsson. Greedy local improvement and weighted set packing approximation. *Journal of Algorithms*, **39**(2), 223–240, May 2001.
23. Bengt Aspvall and Magnús M. Halldórsson and Fredrik Manne. Approximations for the General Block Distribution of a Matrix. *Theoretical Computer Science* **262**(1-2), 145–160, July 2001.
24. Magnús M. Halldórsson, Guy Kortsarz. Tools for Multicoloring with Applications to Planar Graphs and Partial k -Trees. *Journal of Algorithms*, **42**(2), 334–366, February 2002.
25. Magnús M. Halldórsson, Kazuo Iwama, Shuichi Miyazaki and Shiro Taketomi. Online Independent Sets. *Theoretical Computer Science*, **289**(2), 953–962, October 2002.
26. Uriel Feige, Magnús M. Halldórsson, Guy Kortsarz and Aravind Srinivasan. Approximating the domatic number. *SIAM Journal of Computing* **32**(1), 172–195, December 2002.
27. Magnús M. Halldórsson, Guy Kortsarz, Andrzej Proskurowski, Ravit Salman, Hadas Shachnai, and Jan Arne Telle. Multicoloring Trees. *Information and Computation* **180**, 113–129, Feb 2003.
28. Magnús M. Halldórsson, Robert W. Irving, Kazuo Iwama, David F. Manlove, Shuichi Miyazaki, Yasufumi Morita, and Sandy Scott. Approximability results for the stable marriage problem with ties. *Theoretical Computer Science* 306:431–447, 5 September 2003.
29. Geir Agnarsson, Magnús M. Halldórsson. Coloring Squares of Graphs. *SIAM J. Discrete Math.* **16**(4):651–662, 2003.
30. Koen M.J. De Bontridder, Bjarni V. Halldórsson, Magnús M. Halldórsson, Cor A.J. Hurkens, Jan K. Lenstra, R. Ravi, and Leen Stougie. Approximation algorithms for the minimum test set problem. *Mathematical Programming* **98**(1-3):477–491, Sept. 2003.
31. Geir Agnarsson, Peter Damaschke, Magnús M. Halldórsson. Powers of Geometric Intersection Graphs and Dispersion Algorithms. *Discrete Applied Mathematics* **132**(1-3):3–16, Oct. 2003.
32. Magnús M. Halldórsson, Guy Kortsarz and Hadas Shachnai. Minimizing Average Completion of Dedicated Tasks and Interval Graphs. *Algorithmica* **37**:187–209, 2003.
33. Magnús M. Halldórsson. Points, lines, random numbers and algorithms. *Journal of physical sciences and mathematics raust.is*, **1**(2), 2003. (In Icelandic).
34. Magnús Halldórsson, Kazuo Iwama, Shuichi Miyazaki and Hiroki Yanagisawa. Randomized approximation of the stable marriage problem. *Theoretical Computer Science* **325**(3):439–465, 2004.
35. Artur Czumaj, Magnús M. Halldórsson, Andrzej Lingas, and Johan Nilsson. Approximation algorithms for optimization problems in graphs with superlogarithmic treewidth. *Information Processing Letters*, 2005. **94**(2):49–53, 30 April 2005.
36. Rajiv Gandhi, Magnús M. Halldórsson, G. Kortsarz and H. Shachnai. Improved results for data migration and open-shop scheduling. *ACM Transactions on Algorithms* Vol 2, No. 1, 116–129, January 2006.
37. Reuven Bar-Yehuda, Seffi Naor, Magnús M. Halldórsson, Hadas Shachnai, and Irina Shapira. Scheduling Split Intervals. *SIAM Journal on Computing*, Vol. 36, No. 1, 1–15, 2006.
38. Magnús M. Halldórsson. Approximating the (h, k) -labelling problem. *Int. J. Mobile Network Design and Innovation*, Vol. 1, No. 2, 113–117, 2006. (Special Issue on W-FAP '05), 2006.
39. Thomas Bataillon, Thomas Mailund, Steinunn Thorlacius, Eiríkur Steingrímsson, Thorunn Rafnar, Magnús M. Halldórsson, Violeta Calian, Mikkel H. Schierup. The effective size of the Icelandic population inferred from unphased microsatellite markers and the prospects for LD mapping. *European Journal of Human Genetics*, Advance online publication 31 May 2006; doi: 10.1038/sj.ejhg.5201669
40. Geir Agnarsson and Magnús Halldórsson. Strongly simplicial vertices of powers of trees. *Discrete Mathematics* **307**:2647–2652, 2007.

41. Magnús Halldórsson, Kazuo Iwama, Shuichi Miyazaki and Hiroki Yanagisawa. Improved approximation of the stable marriage problem. *ACM Transactions on Algorithms* 3(3), Article 30, August 2007.
42. Guy Kortsarz, Magnús Halldórsson, Jaikumar Radhakrishnan and Sivaramakrishnan Sivasubramanian. Complete Partitions of Graphs. *Combinatorica*, 27(5), 2007.
43. Geir Agnarsson, Ágúst Egilsson, Magnús Halldórsson. Vertex coloring acyclic digraphs and their corresponding hypergraphs. *Discrete Applied Mathematics*, 156(10):1918-1928, 28 May 2008. In press, available online 22 Oct 2007.
44. Rajiv Gandhi, Magnús M. Halldórsson, G. Kortsarz and H. Shachnai. Improved bounds for scheduling conflicting jobs with minsum criteria. *ACM Transactions on Algorithms* 4(1), Article 11, March 2008.
45. Magnús M. Halldórsson, Takeshi Tokuyama. Minimizing Interference of a Wireless Ad-Hoc Network in a Plane. *Theoretical Computer Science*, 402(1):29-42, 28 July 2008.
<http://dx.doi.org/10.1016/j.tcs.2008.03.003>.
46. Akihisa Kako, Takao Ono, Tomio Hirata, and Magnús M. Halldórsson. Approximation Algorithms for the Weighted Independent Set Problem. *Disc. Appl. Math.* 157(4):617-626, February 2009.
47. Guy Even, Magnús M. Halldórsson, Lotem Kaplan, Dana Ron. Scheduling with Conflicts: Online and Offline Algorithms. *J. Scheduling*, 12(2):199-224, April 2009.
48. Magnús M. Halldórsson, Elena Losievskaja Independent sets in bounded-degree hypergraphs *Disc. Appl. Math.* 157(8):1773-1786, April 2009.
49. Leah Epstein, Magnús M. Halldórsson, Asaf Levin, Hadas Shachnai. Weighted Sum Coloring in Batch Scheduling of Conflicting Jobs. *Algorithmica* 55(4):643-665, Dec 2009.
50. Magnús M. Halldórsson. Online coloring of hypergraphs. *Information Processing Letters* 110:370-372, 2010.
51. Geir Agnarsson and Magnús M. Halldórsson. Vertex coloring the square of outerplanar graphs of low degree. To appear in *Discussiones Mathematicae Graph Theory*, 2010.
52. Magnús M. Halldórsson, Joseph Y. Halpern, Li (Erran) Li, Vahab S. Mirrokni. On Spectrum Sharing Games. To appear in *Distributed Computing*, 2010.

Edited Books

1. Magnús M. Halldórsson (Ed.) Algorithm Theory – SWAT 2000. Proceedings of 7th Scandinavian Workshop on Algorithm Theory, Bergen, Norway, July 2000.
2. L. Aceto, I. Damgård, L. A. Goldberg, M. M. Halldórsson, A. Ingólfssdóttir, I. Walukiewicz (Eds). *Automata, Languages and Programming*, 35th International Colloquium, ICALP 2008, Reykjavik, Iceland, July 7-11, 2008, Proceedings, Part I: Track A: Algorithms, Automata, Complexity, and Games. Springer 2008, ISBN 978-3-540-70574-1
3. L. Aceto, I. Damgård, L. A. Goldberg, M. M. Halldórsson, A. Ingólfssdóttir, I. Walukiewicz (Eds). *Automata, Languages and Programming*, 35th International Colloquium, ICALP 2008, Reykjavik, Iceland, July 7-11, 2008, Proceedings, Part II: Track B: Logic, Semantics, and Theory of Programming & Track C: Security and Cryptography Foundations. Springer 2008, ISBN 978-3-540-70582-6.

Refereed Conference Publications

1. Ravi B. Boppana and Magnús M. Halldórsson. Approximating maximum independent sets by excluding subgraphs. In *Proc. of 2nd Scand. Workshop on Algorithm Theory. Springer Lecture Notes in Computer Science (LNCS) #447*, pages 13-25, July 1990.
2. Magnús M. Halldórsson and Mario Szegedy. Lower bounds for on-line graph coloring. In *Proc. of 3rd SIAM/ACM Symposium on Discrete Algorithms*, Florida, pages 211-216, January 1992.

3. Magnús M. Halldórsson, Shuichi Ueno, Hiroshi Nakao, and Yoji Kajitani. Approximating Steiner trees in graphs with restricted weights. In *Proc. of 1st Asia-Pacific Conference on Circuits and Systems*, pages 69–73, Sidney, Australia, December 1992.
4. Magnús M. Halldórsson. Parallel and on-line graph coloring. In *Proc. of 3rd International Symposium on Algorithms and Computation*, pages 61–70, Nagoya, Japan, December 1992. Springer LNCS #650. Received the *Best Paper Award*.
5. Magnús M. Halldórsson, K. V. Subrahmanyam, and Jaikumar Radhakrishnan. Directed vs. undirected monotone contact networks for threshold functions. In *Proc. 34th Annual IEEE Symposium on Foundations of Computer Science*, pages 604–613, Palo Alto, November 1993.
6. Magnús M. Halldórsson, K. V. Subrahmanyam, and Jaikumar Radhakrishnan. On some communication complexity problems related to threshold functions. In *Proc. Thirteenth Conference on Foundations of Software Technology and Theoretical Computer Science*, Bombay, India, December 1993. Springer LNCS # 761.
7. Magnús M. Halldórsson, Jaikumar Radhakrishnan. Greed is good: approximating independent sets in sparse and bounded-degree graphs. In *Proc. of 26th Symposium on Theory of Computing*, pages 439–448, Montreal, Canada, May 1994.
8. Magnús M. Halldórsson, Jaikumar Radhakrishnan. Improved approximations of independent sets in bounded-degree graphs. In *Proc. of Fourth Scandinavian Workshop on Algorithm Theory*, pages 195–206, Aarhus, Denmark, July 1994. Springer LNCS #824.
9. Tatsuya Akutsu and Magnús M. Halldórsson. On the approximation of largest common point sets and largest common subtrees. In *Proc. of Fifth International Symposium on Algorithms and Complexity*, pages 405–413, Beijing, China, August 1994. Springer LNCS #834.
10. Magnús M. Halldórsson. Approximating Discrete Collections via Local Improvements. In *Proc. of Sixth SIAM/ACM Symposium on Discrete Algorithms*, pages 160–169, San Francisco, January 1995.
11. Magnús M. Halldórsson, Kazuo Iwano, Naoki Katoh, and Takeshi Tokuyama. Finding Subsets Maximizing Minimum Structures. In *Proc. of Sixth SIAM/ACM Symposium on Discrete Algorithms*, pages 150–159, San Francisco, January 1995.
12. Magnús M. Halldórsson and Kiyohito Yoshihara. Greedy Approximations of Independent Sets in Low Degree Graphs. In *Proc. of Sixth International Symposium on Algorithms and Computation (ISAAC)*, Cairns, Australia, December 1995. Springer LNCS #1004.
13. Magnús M. Halldórsson. Approximating k -Set Cover and Complementary Graph Coloring. In *Proc. of Fifth International Integer Programming and Combinatorial Optimization Conference (IPCO V)*, pages 118–131, Vancouver, Canada, June 1996. Springer LNCS # 1084.
14. Barun Chandra and Magnús M. Halldórsson. Facility Dispersion and Remote Subgraphs. In *Proc. of Fifth Scandinavian Workshop on Algorithm Theory*, pages 53–65, Reykjavik, Iceland, July 1996. Springer LNCS # 1097.
15. Magnús M. Halldórsson, and Keisuke Tanaka. Approximation and Special Cases of Common Subtrees and Editing Distance. In *Proc. of Seventh ISAAC*, Osaka, Japan, December 1996. Springer LNCS # 1178.
16. Bengt Aspvall, Magnús M. Halldórsson, and Fredrik Manne. Approximating the Generalized Block Distribution of a Matrix. In *Proceedings of the Sixth Scandinavian Workshop on Algorithm Theory (SWAT)*, Stockholm, Sweden, July 1998. Springer LNCS # 1432.
17. Magnús M. Halldórsson, Jan Kratochvíl, and Jan Arne Telle. Independent sets with domination constraints. In *Proceedings of the 25th International Conference on Automata, Languages, and Programming (ICALP)*, Aalborg, Denmark, July 1998. Springer LNCS # 1443.
18. Barun Chandra and Magnús M. Halldórsson. Greedy local improvement and weighted set packing approximation. In *Proc. Tenth SIAM/ACM Symposium on Discrete Algorithm (SODA)*, pages 169–175, Baltimore, January 1999.
19. Magnús M. Halldórsson. Online coloring known graphs. In *Proc. Tenth SIAM/ACM Symposium on Discrete Algorithm (SODA)*, pages 917–918, Baltimore, January 1999.

20. Amotz Bar-Noy, Magnús M. Halldórsson, Guy Kortsarz, Ravit Salman, and Hadas Shachnai. Sum Multi-Coloring of Graphs. In *Proc. European Symp. on Algorithms (ESA)*, LNCS # 1643, July 1999.
21. Magnús M. Halldórsson, Guy Kortsarz, Andrzej Proskurowski, Ravit Salman, Hadas Shachnai, and Jan Arne Telle. Multi-coloring Trees. In *Computing and Combinatorics: Proc. COCOON '99*, Springer LNCS #1627, pages 271–280.
22. Magnús M. Halldórsson. Approximations of Weighted Independent Set and Hereditary Subset Problems. In *Computing and Combinatorics: Proc. COCOON '99*, Springer LNCS # 1627, pages 261–270.
23. Magnús M. Halldórsson, Jan Kratochvíl, and Jan Arne Telle. Mod-2 Independence and Domination in Graphs. In *Proc. 21st Graph-Theoretic Concepts in Computer Science (WG'99)*, LNCS # 1665, pages 101–109, 1999. Also, Technical Report, Department of Computer Science, University of Bergen, February 1999.
24. Magnús M. Halldórsson, Guy Kortsarz. Multicoloring Planar Graphs and Partial k -Trees. In *Proc. Second International Workshop on Approximation Algorithms for Combinatorial Optimization Problems (APPROX '99)*, LNCS # 1671.
25. Geir Agnarsson, Magnús M. Halldórsson. Coloring Squares of Planar Graphs. In *Proc. Eleventh SIAM Symposium on Discrete Algorithm (SODA)*, San Fransisco, January 2000.
26. Uriel Feige and Magnús M. Halldórsson and Guy Kortsarz. Approximating the domatic number. In *Proc. 32nd Annual Symposium on Theory of Computing (STOC)*, May 2000.
27. Magnús M. Halldórsson, Kazuo Iwama, Shuichi Miyazaki and Shiro Taketomi. Online Independent Sets. In *Proc. COCOON '00*, Sidney, Australia, LNCS # 1858, Springer, August 2000.
28. Takao Asano, Magnús M. Halldórsson, Kazuo Iwama, Takeshi Matsuda. Approximation Algorithms for the Maximum Power Consumption Problem on Combinatorial Circuits. In *Proc. ISAAC '00*, Taipei, Taiwan, LNCS # 1969, Springer, Dec. 2000.
29. Magnús M. Halldórsson, G. Kortsarz and H. Shachnai. Minimizing Average Completion of Dedicated Tasks and Interval Graphs. In *APPROX 2001*, LNCS #2129.
30. Bjarni V. Halldórsson, Magnús M. Halldórsson and R. Ravi. On the approximability of the minimum test collection problem. In *9th Annual European Symposium on Algorithms, 2001*, Aarhus, Denmark, August 28-31, 2001, Lecture Notes in Computer Science #2161, Springer Verlag.
31. Reuven Bar-Yehuda, Seffi Naor, Magnús M. Halldórsson, Hadas Shachnai, and Irina Shapira. Scheduling Split Interval Graphs. In *Proc. Thirteenth SIAM Symposium on Discrete Algorithm (SODA)*, San Fransisco, January 2002.
32. Magnús M. Halldórsson, Kazuo Iwama, Shuichi Miyazaki and Yasufumi Morita. Inapproximability Results on Stable Marriage Problems. *Proc. Latin American Theoretical INformatics (LATIN 2002)* pp. 554-568, 2002. (Cancun, Mexico) Springer LNCS # 2286.
33. Geir Agnarsson, Peter Damaschke, Magnús M. Halldórsson. Powers of Geometric Intersection Graphs and Dispersion Algorithms. In *Proceedings of the Eighth Scandinavian Workshop on Algorithm Theory (SWAT)*, Tampere, Finland, July 2002. Springer LNCS # 2368.
34. Magnús Halldórsson, Kazuo Iwama, Shuichi Miyazaki and Hiroki Yanagisawa. Randomized approximation of the stable marriage problem. In *Computing and Combinatorics: Proc. COCOON '03*, Springer LNCS # 2697, pages 261–270.
35. Magnús Halldórsson, Kazuo Iwama, Shuichi Miyazaki and Hiroki Yanagisawa. Improved approximation of the stable marriage problem. In *11th Annual European Symposium on Algorithms (ESA), 2003*, Budapest, Hungary, September, 2003, Lecture Notes in Computer Science # 2832, Springer Verlag.
36. Geir Agnarsson, Magnús Halldórsson. On colorings of squares of outerplanar graphs. In *Proceedings of the fifteenth annual ACM-SIAM symposium on Discrete algorithms (SODA)*, New Orleans, Louisiana, pages 244 - 253, Jan. 2004,

37. Geir Agnarsson, Ágúst Egilsson, Magnús Halldórsson. Proper down-coloring of simple acyclic digraphs. Proceedings of *Applications of Graph Transformations with Industrial Relevance – Second International Workshop, AGTIVE 2003*, Charlottesville, VA, USA, September 27 - October 1, 2003, LNCS #3062, May 2004.
38. Rajiv Gandhi, Magnús M. Halldórsson, G. Kortsarz and H. Shachnai. Improved results for data migration and open-shop scheduling. In *Proc. 31st International Conference on Automata, Languages, and Programming (ICALP)*, pages 658–669, July 2004.
39. Magnús M. Halldórsson, Joseph Y. Halpern, Li (Erran) Li, Vahab S. Mirrokni. On Spectrum Sharing Games. In *Proc. 23rd ACM Symposium on Principles of Distributed Computing (PODC)*, pages 107–114, 2004.
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