

GUY KORTSARZ

PROFESSIONAL PREPARATION

Tel Aviv University	Mathematics and Computer Science	B.Sc, 1988
The Weizmann Institute	Computer Science	M.Sc, 1990
The Weizmann Institute	Computer Science	Ph.D, 1994

APPOINTMENTS

July 1, 2008: **Professor**, Dept. of Computer Science, Rutgers University, Camden

2007-2008: **Visiting**. IBM Watson center, NY. (Sabbatical)

2001-2008: **Associate Professor**, Dept. of Computer Science, Rutgers University, Camden.

1996-2001: **Senior Lecturer**, Dept. of Computer Science, The Open University, Israel.

GRANTS

NSF Grant #0728787.

Amount: \$104000.

Duration: 15/02/2008 - 31/01/2009.

NFS Grant #0829959.

Amount: \$122000.

Duration: 2/1/2009 - 31/1/2012

NSF Grant #1218620

Awarded with Rajiv Gandhi.

Amount: \$485000.

Duration: 9/1/2012 - 6/30/2017.

Additional funds for the same grant: \$8400.

Awarded on 05/13/2013.

Additional funds for the same grant: \$4800.

Approved on 07/30/2013

Additional fund for the same grant: \$12050

Awarded on 04/30/2014

NSF Grant #1540547.

Awarded on 08/06/15

Amount: \$50000.

Duration: September 1, 2015 - August 31, 2020.

NSF Grant #1910565.
Awarded with Rajiv Gandhi.
Amount: \$330607.
Duration: October 1, 2019 - September 31, 2022.

Accumulative grant funding around \$1100000.

INTERNS SUPPORTED BY NSF GRANT

- May 2010 Spyridon Antonakopoulos from **Columbia university**
- May 2013, Hossein Esfandiar from the **University of Maryland**
- May 2014, Manish Purohit and Kanthi Sarpatwar from **The university of Maryland**
- May 2015. Amey Bhangale from **Rutgers University New Brunswick.**
- May 2016. Amey Bhangale from **Rutgers University New Brunswick.**

INVITED PRESENTATIONS: A SAMPLE FROM 2000 FORWARD

- 1) G. Kortsarz. Approximating the Domatic Number, invited talk, Weekly seminar, Computer Science, Tel Aviv University, 2000.
- 2) G. Kortsarz, Approximating the Domatic Number problem, invited talk at the the computer Science weekly seminar, University of Pennsylvania, 2001.
- 3) G. Kortsarz, The achromatic number problem, invited talk, at Dagstuhl seminars, Germany. 2003.
- 4) G. Kortsarz, Rare approximation ratios, invited talk, at DIMACS, Theoretical Computer Science Seminar, 2006
- 5) G. Kortsarz, Approximating non-uniform multicommodity buy at bulk, invited talk at the Workshop on approximation algorithms, Montreal, Canada, 2006. Organized by Goemans and Cheriyan.
- 6) G. Kortsarz, Comparing min-cost and min-power connectivity problems. Invited talk at Conference on Operations Research, Euro 2006, Iceland, 2006
- 7) G. Kortsarz, Comparing min-cost and min-power connectivity problems, invited talk at INFORMS, Pittsburgh, 2006
- 8) G. Kortsarz. Rare approximation ratios. 2007, invited talk. at Bell Labs Computer Science weekly seminar.
- 9) G. Kortsarz, Approximating Buy at Bulk problems, invited talk, at the IBM Watson Watson Weekly computer Science Seminar, 2007.

- 10) G. Kortsarz, Approximating the p Directed Steiner Forest problem, invited talk at INFORMS, Washington D.C, 2008.
- 11) G. Kortsarz, Survey on approximation connectivity algorithms via survey of techniques, invited talk at Parameterized complexity and approximation algorithms. Seminar At Schloss Dagstuhl, 2009.
- 12) G. Kortsarz On the Achromatic number problem, invited talk at Drexel, Weekly Math Seminar, 2010.
- 13) G. Kortsarz, Tools for multicoloring with applications for bounded tree width graphs and planar graphs, invited talk at Dagstuhl seminars. A seminar on Bidimensional Structures: Algorithms, Combinatorics and Logic. 2013.
- 14) G. Kortsarz, The interesting behavior of the source location problem, invited talk for Maryland CS weekly Seminar. 2014.
- 15) G. Kortsarz, Optimal time for exact and approximation algorithms, invited talk at "Satisfiability Lower Bounds and Tight Results for Parameterized and Exponential-Time Algorithms," Simons, institute of theory and computing, Berkeley University, November 2-6, 2015. Organized by Daniel Marx.
- 16) Guy Kortsarz, A survey on approximating spanners. Invited talk at the *DIMACS Workshop on Algorithms for Data Center Networks*, June 5 - 7, 2017. Organized by B. Schieber, H. Shachnai, and L. Zhang,
- 17) Guy Kortsarz. On David Peleg from the viewpoint of his first Ph. D. Student. Invited talk in a workshop at PODC 2017. Organized by Prof Boaz Patt-Shamir and Prof Yuval Emek.
- 18) Improved approximation for minimum covering problem using Iterative randomized rounding. Invited talk in: The 9th Workshop on Flexible Network Design May 22-25, 2018 Organized by Mohammad Taghi Hajiaghayi and Samir Khuller.
- 19) A Survey On the Directed Steiner Forest. Invited talk in John Hopkins weekly seminar. 2019
- 20) Group Steiner with degree bounds on trees and bounded tree width graphs. Invited talk in the International Symposium on Algorithms and Computation (ISAAC) 2020. **Remark:** Talk (and conference) was by Remote.

CHAPTERS IN BOOKS

- 1) G. Kortsarz and Z. Nutov, Approximating minimum-cost connectivity problems, In: Editor Teofilo F. Gonzales, Handbook on Approximation Algorithms and Metaheuristics, Published by Chapman and Hall, CRC, Taylor and Francis Group, Book Chapter, 58 (30 pages) 2007
- 2) G. Kortsarz, Fixed parameter approximation and hardness. Encyclopedia of Algorithms, Springer 2015, ISBN 978-3-642-27848-8
- 3) M. Halldorsson and G. Kortsarz. Chromatic sums, multicoloring and scheduling dependent jobs. A book chapter for the Handbook on Approximation Algorithms and Metaheuristics, Published by Chapman and Hall, CRC, Taylor and Francis Group. 2020.

SERVICE FOR THE COMPUTER SCIENCE COMMUNITY

- 1) Previously an editor in Information Processing Letters Journal
- 2) Committee member.
RANDOM-APPROX, Princeton, August 2007
RANDOM-APPROX, Barcelona, August 2010
ESA. France, September 2013.
ESA 2021.
- 3) Previously a member of *Mathematical Reviews*
(part of The American Math society)

PUBLICATIONS

- 1) I. Arad, G. Kortsarz, J Naor, B Schieber, H Shachnai. Approximations and Hardness of Packing Partially Ordered Items. Workshop On Graph Algorithm (WG) 2024. To appear.
- 2) M. Dinitz, Z.Nutov, A. Koranteng and G. Kortsarz.
Improved Approximation For Relative Survivable Network Design problems. WAOA, 2023, 194-201.
Submitted to a special issue of WAOA 2023.
- 3) M. Dinitz, A. Koranteng and G. Kortsarz.
Relative Survivable Network Design, APPROX-RANDOM 41:1-41:19. (2022).
- 4) X. Guo, G. Kortsarz, B. Laekhanukit, S. Li, D. Vaz, J. Xian: On Approximating Degree-Bounded Network Design Problems. *Algorithmica* 84(5): 1252-1278 (2022).
Preliminary version in APPROX-RANDOM, pages 39:1-39:21, 2020.
- 5) G. Kortsarz, Z. Nutov: The minimum degree Group Steiner problem. *Discret. Appl. Math.* 309: 229-239 (2022).
Preliminary version in IWOCA, pages 245-354, 2020.

- 6) G. Kortsarz, Z. Nutov, E. Shalom: Approximating activation edge-cover and facility location problems. *Theor. Comput. Sci.* 930: 218-228 (2022)
Preliminary version in MFCS, pages 20:1-20:14, 2019.
- 7) M. Halldrsson, G. Kortsarz, P. Mitra, T. Tonoyan: Network Design under General Wireless Interference. *Algorithmica* 83(11): 3469-3490 (2021)
Preliminary version in ICALP, pages 158:1-158:15, 2018.
- 8) M. Cygan, M. Halldórsson and G. Kortsarz,
A Tight Lower Bounds for Set Cover Approximation in Subexponential time.
In WAOA, pages 159-173, 2020.
No journal version.
- 9) P. Chalermsook, M. Cygan, G. Kortsarz, B. Laekhanukit, P. Manurangsi, D. Nanongkai, L. Trevisan: From Gap-Exponential Time Hypothesis to Fixed Parameter Tractable Inapproximability: Clique, Dominating Set, and More. *SIAM J. Comput.* 49(4): 772-810 (2020).
Preliminary version in FOCS pages 743-754, 2017.
- 10) E. Chlamtác, M. Dinitz, G. Kortsarz, B. Laekhanukit: Approximating Spanners and Directed Steiner Forest: Upper and Lower Bounds. *ACM Trans. Algorithms* 16(3): 33:1-33:31 (2020)
Preliminary version in SODA, pages 534-553, 2017.
- 11) M. Hajiaghayi, G. Kortsarz, R. MacDavid, Purohit, K. Sarpatwar: Approximation algorithms for connected maximum cut and related problems. *Theor. Comput. Sci.* 814: 74-85 (2020).
Preliminary version in ESA pages 693-704, 2015.
R. MacDavid is an under graduate student at Rutgers Camden at 2015.
- 12) R. Gandhi, M. Halldrsson, C. Konrad, G. Kortsarz, H. Oh: Radio aggregation scheduling. *Theor. Comput. Sci.* 840: 143-153 (2020).
Preliminary version in ALGOSENSORS, pages 169-182, 2015.
Hoon Oh is an undergraduate student at Rutgers Camden at 2015.
- 13) G. Calinescu, G. Kortsarz, Z. Nutov: Improved approximation algorithms for minimum power covering problems. *Theor. Comput. Sci.* 795: 285-300 (2019).
Preliminary version in WAOA, pages 134-148, 2018.
- 14) The Densest k -Subhypergraph Problem.
E. Chlamtác, M. Dinitz, C. Konard, G. Kortsarz, and G. Rabanca, *SIAM J. Discret. Math.* 32(2): 1458-1477 (2018).
Preliminary version in APPROX-RANDOM, pages 6:1-6:19. 2016.
- 15) Guy Kortsarz, Zeev Nutov: LP-relaxations for tree augmentation. *Discret. Appl. Math.* 239: 94-105 (2018)
Preliminary version in APPROX-RANDOM, pages 13:1-13:16, 2016.

- 16) R. Gandhi, M. Hajiaghayi, G. Kortsarz, M. Purohit, K. Sarpatwar: On maximum leaf trees and connections to connected maximum cut problems. *Inf. Process. Lett.* 129: 31-34 (2018)
No conference version.
- 17) Hossein Esfandiari, Guy Kortsarz: A bounded-risk mechanism for the kidney exchange game. *Discret. Appl. Math.* 243: 46-53 (2018)
Preliminary version in *LATIN*, pages 416-428, 2016.
- 18) A. Bhangale, R. Gandhi, M. Hajiaghayi, R. Khandekar, G. Kortsarz: Bi-Covering: Covering Edges with Two Small Subsets of Vertices. *SIAM J. Discret. Math.* 31(4): 2626-2646 (2017)
Preliminary version in *ICALP*, pages 6:1-6:12, 2016.
- 19) R. Chitnis, H. Esfandiari, M. Hajiaghayi, R. Khandekar, G. Kortsarz, S. Seddighin: A Tight Algorithm for Strongly Connected Steiner Subgraph on Two Terminals with Demands. *Algorithmica* 77(4): 1216-1239 (2017)
Preliminary version in *IPEC* pages 159-171, 2014.
- 20) G. Kortsarz, Z. Nutov: Approximating source location and star survivable network problems. *Theor. Comput. Sci.* 674: 32-42 (2017)
Preliminary version in *WG*, pages 203-218, 2015.
- 21) M. Dinitz, G. Kortsarz, Z. Nutov: Improved Approximation Algorithm for Steiner k -Forest with Nearly Uniform Weights. *ACM Trans. Algorithms* 13(3): 40:1-40:16 (2017).
Preliminary version in *APPROX-RANDOM*, pages 115-127, 2014.
- 22) M. Hajiaghayi, R. Khandekar, G. Kortsarz, Z. Nutov: On Fixed Cost k -Flow Problems. *Theory Comput. Syst.* 58(1): 4-18 (2016).
Preliminary version in *WAOA*. pages 49-60, 2013
- 23) Guy Kortsarz, Zeev Nutov: A Simplified 1.5-Approximation Algorithm for Augmenting Edge-Connectivity of a Graph from 1 to 2. *ACM Trans. Algorithms* 12(2): 23:1-23:20 (2016)
Preliminary version in *APPROX-RANDOM*, pages 90-101, 2001.
- 24) M. Dinitz, G. Kortsarz, R. Raz: Label Cover Instances with Large Girth and the Hardness of Approximating Basic k -Spanner. *ACM Trans. Algorithms* 12(2): 25:1-25:16 (2016)
Preliminary version in *ICALP*, pages 290-301. 2012
- 25) M. Hajiaghayi, R. Khandekar, M. Khani, G. Kortsarz: Approximation Algorithms for Movement Repairmen. *ACM Trans. Algorithms* 12(4): 54:1-54:38 (2016)
Preliminary version in *APPROX-RANDOM*, pages 218-232, 2013.
- 26) Hossein Efsandiari, Guy Kortsarz: Brief Announcement: New Mechanisms for Pairwise Kidney Exchange. *Symposium on Algorithmic Game Theory*, pages 303-304, 2015.
- 27) R. Gandhi, G. Kortsarz: On the set expansion problems and the small set expansion conjecture. *Discret. Appl. Math.* 194: 93-101 (2015)
Preliminary version in *WG*, pages 189-200, 2014.

- 28) M. Hajiaghayi, R. Khandekar and G. Kortsarz. FPT-hardness for Clique and Set Cover with super exponential time in k . Unpublished manuscript. 2014.
The first super constant hardness, for any running time in k , for Set Cover and Clique, under the Gap-ETH.
- 29) R. Khandekar, G. Kortsarz, V. S. Mirrokni: On the Advantage of Overlapping Clusters for Minimizing Conductance. *Algorithmica* 69(4): 844-863 (2014)
Preliminary version in LATIN, pages 494-505, 2014.
- 30) M. Dinitz, G. Kortsarz: Matroid Secretary for Regular and Decomposable Matroids. *SIAM J. Comput.* 43(5): 1807-1830 (2014)
Preliminary version in SODA, pages 108-117, 2013.
- 31) M. Hajiaghayi, R. Khandekar, G. Kortsarz, V. Liaghat: On a Local Protocol for Concurrent File Transfers. *Theory Comput. Syst.* 55(3): 613-636 (2014)
Preliminary version in SPAA, pages 269-278 2001.
- 32) R Chitnis, M. Hajiaghayi and G Kortsarz. Fixed Parameter and approximation algorithms: a new look.
IPEC, pages 110-122, 2013.
No journal version.
- 33) R. Khandekar, G. Kortsarz, V. Mirrokni, M. Salavatipour: Two-stage Robust Network Design with Exponential Scenarios. *Algorithmica* 65(2): 391-408 (2013)
Preliminary version in ESA, pages 589-600, 2008.
- 34) M. Cygan, G. Kortsarz, Z. Nutov: Steiner Forest Orientation Problems. *SIAM J. Discret. Math.* 27(3): 1503-1513 (2013)
Preliminary version in ESA, pages 361-372, 2012.
- 35) R. Gandhi, M. Halldrsson, G. Kortsarz, H. Shachnai: Corrigendum: Improved results for data migration and open shop scheduling. *ACM Trans. Algorithms* 9(4): 34:1-34:7 (2013)
Preliminary version in ICALP, pages 658-669 2004.
- 36) M. Hajiaghayi, R. Khandekar, G. Kortsarz: Local Search Algorithms for the Red-Blue Median Problem. *Algorithmica* 63(4): 795-814 (2012)
Preliminary version in ESA, pages 314-325, 2010.
- 37) M. Feldman, G. Kortsarz, Z. Nutov: Improved approximation algorithms for Directed Steiner Forest. *J. Comput. Syst. Sci.* 78(1): 279-292 (2012)
Preliminary version in SODA, pages 922-931, 2009.
- 38) M. Hajiaghayi, R. Khandekar, G. Kortsarz, Z. Nutov: Prize-collecting steiner network problems. *ACM Trans. Algorithms* 9(1): 2:1-2:13 (2012)
Preliminary version in IPCO, pages 71-84, 2010.
- 39) M. Hajiaghayi, R. Khandekar, G. Kortsarz, J. Mestre: The checkpoint problem. *Theor. Comput. Sci.* 452: 88-99 (2012)
Preliminary version in APPROX-RANDOM, pages 219-231, 2010. 2001.

- 40) G. Kortsarz, V. Mirrokni, Z. Nutov, E. Tsanko: Approximating Minimum-Power Degree and Connectivity Problems. *Algorithmica* 60(4): 735-742 (2011)
Preliminary version in LATIN. pages 423-435, 2008.
- 41) G. Even, G. Kortsarz, Z. Nutov: A 1.5-approximation algorithm for augmenting edge-connectivity of a graph from 1 to 2. *Inf. Process. Lett.* 111(6): 296-300 (2011).
This paper is incorrect. A correct version was published in 2016.
- 42) M. Halldrsson, G. Kortsarz, M. Sviridenko: Sum edge coloring of multigraphs via configuration LP. *ACM Trans. Algorithms* 7(2): 22:1-22:21 (2011)
Preliminary version in IPCO, pages 359-373, 200.
- 43) Guy Kortsarz, Zeev Nutov: Approximating some network design problems with node costs. *Theor. Comput. Sci.* 412(35): 4482-4492 (2011)
Preliminary version in APPROX-RANDOM, pages 231-243 2009.
- 44) C. Chekuri, M. Hajiaghayi, G. Kortsarz, M. Salavatipour: Approximation Algorithms for Nonuniform Buy-at-Bulk Network Design. *SIAM J. Comput.* 39(5): 1772-1798 (2010)
Preliminary version in FOCS, pages 677-686, 2006.
- 45) G. Kortsarz, M. Langberg, Z. Nutov: Approximating Maximum Subgraphs without Short Cycles. *SIAM J. Discret. Math.* 24(1): 255-269 (2010)
Preliminary version in APPROX-RANDOM, pages 118-131, 2008
- 46) M. Hajiaghayi, G. Kortsarz, M. Salavatipour: Approximating Buy-at-Bulk and Shallow-Light k -Steiner Trees. *Algorithmica* 53(1): 89-103 (2009)
Preliminary version in APPROX-RANDOM, pages 152-163, 2006.
- 47) Guy Kortsarz, Zeev Nutov: Approximating minimum-power edge-covers and 2, 3-connectivity. *Discret. Appl. Math.* 157(8): 1840-1847 (2009)
No conference version
- 48) Guy Even, Jon Feldman, Guy Kortsarz, Zeev Nutov: A 1.8 approximation algorithm for augmenting edge-connectivity of a graph from 1 to 2. *ACM Trans. Algorithms* 5(2): 21:1-21:17 (2009)
No conference version.
- 49) Guy Kortsarz, Zeev Nutov: Tight approximation algorithm for connectivity augmentation problems. *J. Comput. Syst. Sci.* 74(5): 662-670 (2008).
Preliminary version in . ICALP, pages 443-452, 2006.
- 50) G. Kortsarz, Z. Nutov: A note on two source location problems. *J. Discrete Algorithms* 6(3): 520-525 (2008)
No conference version.
- 51) R. Gandhi, M. Halldrsson, G. Kortsarz, H. Shachnai: Improved bounds for scheduling conflicting jobs with minsum criteria. *ACM Trans. Algorithms* 4(1): 11:1-11:20 (2008).
Preliminary version in ICALP, pages 658-669, 2004.

- 52) L. Di Gaspero, J. Grtner, G. Kortsarz, N.t Musliu, A. Schaerf, W. Slany: The minimum shift design problem. *Ann. Oper. Res.* 155(1): 79-105 (2007).
Preliminary version in ESA, pages 593-604, 2003.
- 53) M. Halldrsson, G. Kortsarz, J. Radhakrishnan, S. Sivasubramanian: Complete partitions of graphs. *Combinatorica* 27(5): 519-550 (2007).
Preliminary version in SODA, pages 860-869, 2005.
- 54) Guy Kortsarz: A Lower Bound for Approximating Grundy Numbering. *Discret. Math. Theor. Comput. Sci.* 9(1) (2007)
No conference version
- 55) M. Hajiaghayi, G. Kortsarz, V. Mirrokni, Z. Nutov: Power optimization for connectivity problems. *Math. Program.* 110(1): 195-208 (2007)
Preliminary version in IPCO, pages 349-361, 2005.
- 56) E. Halperin, G. Kortsarz, R. Krauthgamer, A. Srinivasan, N. Wang: Integrality Ratio for Group Steiner Trees and Directed Steiner Trees. *SIAM J. Comput.* 36(5): 1494-1511 (2007)
Preliminary version in SODA, pages 275-284, 2003.
- 57) G. Kortsarz, S. Shende: An Improved Approximation of the Achromatic Number on Bipartite Graphs. *SIAM J. Discret. Math.* 21(2): 361-373 (2007)
Preliminary version in ESA, pages 385-396, 2003.
- 58) Michael Elkin, Guy Kortsarz: An improved algorithm for radio broadcast. *ACM Trans. Algorithms* 3(1): 8:1-8:21 (2007).
Preliminary version in SODA, pages 222-231, 2005.
- 59) C. Chekuri, M. Hajiaghayi, G. Kortsarz, M. Salavatipour: Approximation algorithms for node-weighted buy-at-bulk network design. SODA, pages 1265-1274, 2007.
No journal Version.
- 60) M. Elkin, G. Kortsarz: An Approximation Algorithm for the Directed Telephone Multicast Problem. *Algorithmica* 45(4): 569-583 (2006)
Preliminary version in ICALP, pages 212-223, 2003.
- 61) C. Chekuri, G. Even, G. Kortsarz: A greedy approximation algorithm for the group Steiner problem. *Discret. Appl. Math.* 154(1): 15-34 (2006)
Preliminary version in SODA 2002: 49-58
The journal version corrects the conference version.
- 62) K. Rohloff, S. Khuller, G. Kortsarz: Approximating the Minimal Sensor Selection for Supervisory Control. *Discret. Event Dyn. Syst.* 16(1): 143-170 (2006)
Preliminary version in WODES, pages 85-90, 2004

- 63) R. Gandhi, E. Halperin, S. Khuller, Guy Kortsarz, A. Srinivasan: An improved approximation algorithm for vertex cover with hard capacities. *J. Comput. Syst. Sci.* 72(1): 16-33 (2006).
Preliminary version in ICALP, pages 164-175, 2003.
- 64) Michael Elkin, Guy Kortsarz: Sublogarithmic approximation for telephone multicast. *J. Comput. Syst. Sci.* 72(4): 648-659 (2006)
Preliminary version in SODA, pages 76-85, 2003.
- 65) R. Gandhi, M. Halldrsson, G. Kortsarz, H. Shachnai: Improved results for data migration and open shop scheduling. *ACM Trans. Algorithms* 2(1): 116-129 (2006).
Preliminary version in ICALP, 658-669, 2004.
- 66) J. Chuzhoy, S. Guha, E. Halperin, S. Khanna, G. Kortsarz, R. Krauthgamer, J. Naor: Asymmetric k -center is $\log^* n$ -hard to approximate. *J. ACM* 52(4): 538-551 (2005)
Preliminary version in STOC 2004: 21-27.
- 67) Y. Kortsarts, G. Kortsarz, Z. Nutov: Greedy approximation algorithms for directed multicuts. *Networks* 45(4): 214-217 (2005)
Preliminary version in WAOA, 61-67, 2004.
- 68) G. Kortsarz, Z. Nutov: Approximating k -node Connected Subgraphs via Critical Graphs. *SIAM J. Comput.* 35(1): 247-257 (2005)
Preliminary version in STOC, pages 138-145, 2004.
- 69) M. Elkin, G. Kortsarz: A Combinatorial Logarithmic Approximation Algorithm for the Directed Telephone Broadcast Problem. *SIAM J. Comput.* 35(3): 672-689 (2005)
Preliminary version in STOC 2002: 438-447
- 70) M. Elkin, G. Kortsarz: Polylogarithmic Additive Inapproximability of the Radio Broadcast Problem. *SIAM J. Discret. Math.* 19(4): 881-899 (2005).
Preliminary version in APPROX-RANDOM, pages 105-116, 2004.
- 71) G. Even, G. Kortsarz, W. Slany: On network design problems: fixed cost flows and the covering Steiner problem. *ACM Trans. Algorithms* 1(1): 74-101 (2005).
Preliminary version in SWAT, pages 318-327, 2002.
- 72) M. Elkin, G. Kortsarz: Logarithmic inapproximability of the radio broadcast problem. *J. Algorithms* 52(1): 8-25 (2004)
No Conference version.
- 73) G. Kortsarz, R. Krauthgamer, J. Lee: Hardness of Approximation for Vertex-Connectivity Network Design Problems. *SIAM J. Comput.* 33(3): 704-720 (2004).
Preliminary version in APPROX-RANDOM, pages 185-199, 2002.
- 74) M. Halldrsson, G. Kortsarz: Multicoloring: Problems and Techniques. *MFCS*, pages 25-41, 2004.
Invited paper. No journal version.

- 75) Guy Kortsarz, Zeev Nutov: Approximating Node Connectivity Problems via Set Covers. *Algorithmica* 37(2): 75-92 (2003)
Preliminary version in APPROX-RANDOM, pages 194-205, 2000.
- 76) M. Halldrsson, G. Kortsarz, H. Shachnai: Sum Coloring Interval and k-Claw Free Graphs with Application to Scheduling Dependent Jobs. *Algorithmica* 37(3): 187-209 (2003)
Preliminary version in APPROX-RANDOM, pages 114-126, 2001.
- 77) M. Halldrsson, G. Kortsarz, A. Proskurowski, R. Salman, H. Shachnai, J. Telle: Multicoloring trees. *Inf. Comput.* 180(2): 113-129 (2003)
Preliminary version in COCOON, pages 271-280, 1999.
- 78) M. Halldrsson, G. Kortsarz: Tools for Multicoloring with Applications to Planar Graphs and Partial k-Trees. *J. Algorithms* 42(2): 334-366 (2002)
Preliminary version in APPROX-RANDOM, pages 73-84, 1999.
- 79) U. Feige, Magns M. Halldrsson, Guy Kortsarz, A. Srinivasan: Approximating the Domatic Number. *SIAM J. Comput.* 32(1): 172-195 (2002).
Preliminary version in STOC 2000: 134-143.
- 80) U. Feige, G. Kortsarz, D. Peleg: The Dense k-Subgraph Problem. *Algorithmica* 29(3): 410-421 (2001).
Preliminary version in FOCS 1993: 692-701
- 81) G. Kortsarz: On the Hardness of Approximating Spanners. *Algorithmica* 30(3): 432-450 (2001)
Preliminary version in APPROX, pages 135-146, 1998.
- 82) G. Kortsarz, R. Krauthgamer: On Approximating the Achromatic Number. *SIAM J. Discret. Math.* 14(3): 408-422 (2001)
Preliminary version in SODA, pages 309-318, 2001.
- 83) J. Bar-Ilan, G. Kortsarz, D. Peleg: Generalized submodular cover problems and applications. *Theor. Comput. Sci.* 250(1-2): 179-200 (2001)
Preliminary version in ISTCS, pages 110-118, 1996.
- 84) A. Bar-Noy, M. Halldrsson, G. Kortsarz, R. Salman, H. Shachnai: Sum Multicoloring of Graphs. *J. Algorithms* 37(2): 422-450 (2000)
Preliminary version in ESA, pages 390-401, 1999.
- 85) D. Handke, G. Kortsarz: Tree Spanners for Subgraphs and Related Tree Covering Problems. *WG 2000*: 206-217.
No journal version.
- 86) G. Kortsarz, D. Peleg: Approximating the Weight of Shallow Steiner Trees. *Discret. Appl. Math.* 93(2-3): 265-285 (1999).
Preliminary version in SODA 1997: 103-110.

- 87) A. Bar-Noy, M. Halldrsson, G. Kortsarz: A Matched Approximation Bound for the Sum of a Greedy Coloring. *Inf. Process. Lett.* 71(3-4): 135-140 (1999)
No conference version.
- 88) A. Bar-Noy, Guy Kortsarz: Minimum Color Sum of Bipartite Graphs. *J. Algorithms* 28(2): 339-365 (1998).
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