

Ilan Newman

CURRICULUM VITAE AND LIST OF PUBLICATIONS

1 Personal Details

Name: Ilan Newman
Citizenship: Israeli, id. 54747811
Permanent home address: Harofe 29, Haifa 34367
Phone: home- 04- 8263671
work- 04 -8249729
email: ilan@cs.haifa.ac.il

2 Higher Education

1991 - 92' Post doc. at the Royal Institute of Technology (KTH)
Stockholm, Sweden. With Prof. Johan Håstad.
1987 - 91' Phd. Student at the dept. of Computer Science of the Hebrew
University, Jerusalem. Adviser Prof. Avi Wigderson.
Thesis: On the formula complexity of simple Boolean functions.
Degree approved on March 92, and awarded on 9.6.93.
1985 - 87' MSc. in Computer Science at the Technion (with distinction).
Adviser Dr. Ephraim Korach.
Thesis: 'On integral packing of T-Cuts, $|T| < 10.$ ',
Degree awarded on June 1988.
1975 - 79' B.Sc. electrical engineering, Technion. (with distinction).
Degree awarded on June 1980.

3 Academic Employment

Nov- 09 - & Professor at the CS dept. Haifa University.
Dec 02 - 2009 Associate Prof. at CS dept. Haifa University.
Oct. 2000 - Jan 02 On Sabbatical at NEC research Institute, NJ.
1996 - Sept. 2000 Senior lecturer at the Dept. Computer Sci. Haifa University.
1993 - 96' Lecturer at the Dept. of Math. and Computer Sci.
Haifa University.
1992 Post doc. at the Royal Institute of Technology, Stockholm,
Sweden. Invited by Prof. Johan Håstad.
1991 Visiting researcher at DIMACS research center and Princeton U.
1988-1990 Teaching Assistant at the Dept. of Mathematics
and Computer Science, Hebrew University, Jerusalem, Israel.
1985-1987 Teaching Assistant, Dept. of Computer Science, Technion.

4 Offices in University Academic Administration

- Feb. 2012 - date, On the university academic promotion committee.
- April 2010 - date, and March 2004 - Nov. 04 - Head of the departmental committee for graduate (M.Sc.) students.
- Dec. 2004 - Dec. 05 - Served on the faculty of social sciences promotion committee.
- Dec. 2004 - Sept. 06 - Head of the Computer Science department.
- I served on numerous professional committees for promotion procedure of faculty members.
- Since 2006, on the advisory committee of the Management Information Systems department.

5 Academic activities outside the university

5.1 Program Committees

- Workshop on Property Testing, with Eldar Fischer, June 17-18, Haifa , Israel.
- On the program committee of STOC 2013.
- On the program committee of ICALP 2013.
- On the program committee of TRAPAS 2012.
- On the program committee of Random 2012 (Boston).
- On the program committee of 6th International Computer Science Symp. in Russia (CSR), 2011.
- DIMACS workshop on Property Testing, together with Mario Szegedy and Miklos Simonovits, Mar. 30 - Apr. 2, 2009.
- On the program committee of the 18th annual conference 'COMPLEXITY 2003'.
- On the organizing committee of the workshop on Discrete Metric Spaces and their Algorithmic Applications, 3-7 March, 2002, Haifa, Israel.
- On the program committee of the Israeli Symposium on Theory and Computing Systems 1997 (ISTCS97).

5.2 Editorial board

I served on the editorial board of International Journal of Computer Mathematics Section A, Taylor & Francis, 2008-2009.

6 Invited talks

I gave invited talks at:

- Invited keynote speaker, 12th JGA (Journées Graphes et Algorithmes), Nov. 8-10, 2010, CIRM, Luminy, France.
- Dagstuhl International Conference and Research Center for Computer Science, Seminar on 'Algebraic methods in complexity', organized by Harry Buhrman (CWI- Amsterdam), Lance Fortnow (Chicago U.) and Thomas Thierauf (U. of Ulm, Germany). Years: 2002, 2004, 2007, 2009, 2011.
- Was invited and gave a talk on DIMACS workshop on "geometry of metric spaces" oct 2008, organized by S. Arora, M. Charikar, A. Naor and B. Johnson.
- Was invited and gave a talk on DIMACS workshop on "large graphs" Oct. 2006, organized by Benny Sudakov and László Lovász.
- Participated in Dagstuhl International Conference and Research Center for Computer Science, Seminar on 'Geometric Networks and Metric Space Embeddings', organized by Joachim Gudmundsson, Rolf Klein, Giri Narasimhan, Michiel Smid and Alexander Wolff, June 2006, Oct 2009.
- Participated in Dagstuhl International Conference and Research Center for Computer Science, Seminar on 'Complexity of Boolean Functions', organized by Matthias Krause, Pavel Pudlak and Dieter V. Melkebeek. Years: 2004, 2006, changed name to "discrete Complexity" 2011.
- Participated in Dagstuhl International Conference and Research Center for Computer Science, Seminar on 'Sublinear algorithm' Organized by Ronitt Rubinfeld, Artur Czumaj, Christian Sohler, July 2005, Aug 2008.
- Participated in Bertinoro Seminar on 'Sublinear algorithm' Organized by Artur Czumaj, Pyotr Indyk, Robi Krauthgamer and Ronitt Rubinfeld, 2011.
- DIMACS workshop on 'Finite Metric Spaces and Their Applications', at Princeton university, Aug. 2003.
- invited to be a plenary speaker in the Graph Theory, Combinatorics and Algorithms meeting (June 17-20, 2002), organized by Prof. Martin C. Golumbic of the Caesarea Edmond Benjamin de Rothschild Foundation, Institute for Interdisciplinary Applications of Computer Science, University of Haifa.
- An invited talk titled 'Finite Metric spaces, l_1 embeddings and applications', on the 'Graph Mini-fest day' organized by Prof. Martin C. Golumbic, at Bar-Ilan U. on April 5, 2000. The mini-conference was a day workshop with five pre-invited talks (of which the above was one).
- An invited talk and panel discussion presenting work in computer aided education in a conference day on "Information Technology in Undergraduate Science and Technology Education" at the Technion, 4.3.99.
- I gave a talk on a preliminary version of a work with Mario Szegedy (item 13 in section E.) at the Israeli theory seminar at Tell-Aviv Dec. 29. 1995. The seminar is open, there were four invited talks.

- I gave a talk in the “Rand workshop” (the international interest group on Randomness), Paris, Oct 1994. The workshop was organized by Prof. M. Santha from CNRS Paris. Title: ”POS optical technology as the communication media for distributed and parallel computing”.
- A talk on “Read Once Boolean functions” in the LMS (London Mathematical Society) work shop on Boolean Function, organized by Prof. Mike S. Patterson, Durham July, 1990.
The workshop was a closed workshop by personal invitation for scientists in theoretical computer science.

7 Scholarships, Awards, Grants

7.1 Scholarships, Awards

1992 - Post doc. grant at KTH, the Royal Institute of Technology, Sweden.

1990 - Leibnitz Ph.D scholarship - Hebrew University.

1990 - Wolf prize for Ph.D students - Hebrew University.

1986 - Awarded Gutwirt fund for Ms.C students - The Technion.

1976,7,8,9 - Dean’s list of excellence - The Technion.

7.2 Grants

In the following grants I am a ‘prime investigator’ (along with the other co-authors).

2011-2015 ISF grant for 4 years, \$61,000 for first year, with Dr. Yuri Rabinovich. On: ‘Finite Metric Spaces - New Challenges’.

2001,02 BSF for two years, \$30,000 for each year, with Dr. Yuri Rabinovich, Dept. of CS, Haifa U. and Prof. Alistair Sinclair, Dept. of CS, Berkeley U. on ‘Discrete Metric Spaces: Structure and Applications’.

2002 ‘Joint Technion-Haifa university’ grant, \$5000 for a year, with Dr. Eldar Fischer, CS. dept. the Technion. On ‘Combinatorial Property Testing’.

2004-2006 ISF grant for three years, \$40,500 per year, with Dr. Eldar Fischer, CS. dept. the Technion. On ‘Combinatorial Property Testing’.

2007-2010 ISF grant for 4 years, \$60,000 per year, with Dr. Eldar Fischer, CS. dept. the Technion. On ‘Property Testing - new frontiers’

1996 - A grant from the Ministry of Science and the Arts, \$ 23,000, with Dr. Assaf Schuster, Technion. Subject ‘Hot-Potato and wormhole routing algorithms’.

- 1996 - A grant from the Ministry of Science and Arts, \$70,000, with Prof. Noam Nisan, Hebrew U. and Dr. Muli Safra, Tel Aviv U. Subject 'Research and teaching in universities in the Internet era'.
- 1995 - A grant from the Ministry of Science and the Arts, \$ 23,000, with Dr. Assaf Schuster, Technion. Subject 'Hot-Potato and wormhole routing algorithms'.
- 1994 - A grant from the Ministry of Science and the Arts, \$ 23,000, with Dr. Assaf Schuster, Technion. Subject 'Hot-Potato and wormhole routing algorithms'.
- 1992 - Joint Technion-Haifa University grant, \$ 5000, with Dr. Assaf Schuster, Technion, subject 'Models for routing in optical networks'.

8 Teaching experience

8.1 Courses taught in recent years

I taught the following courses at Haifa University: Algorithms, Data Structures, Computability, Introduction to set theory and combinatorics, Discrete Math, Complexity of Boolean functions, Randomized algorithms, advanced course in computational complexity and Seminars in theoretical CS.

8.2 Supervision of Graduate Students and post docs

- Guy Wolfowitz, Ph.D. ended 2010, thesis: 'randomized processes and application'.
- Oren Ben-Zwi, Ph.D. ended 2010, thesis: 'algorithmic game theory'.
- Igor Kleiner, M.Sc. ended 2008, thesis: 'Using property testing for image processing'.
- Roy Levin, MSc. ended 2007, thesis: 'Profiling using flow techniques'.
- Oded Lachish, Ph.D. ended 2007, thesis: 'Property Testing'.
- Dr. Shirley Halevi - post doc. 2006.
- Oren Ben-zvi, MSc. - ended Aug 06, thesis: 'Property Testing of geometrical MST'.
- Guy Wolfowitz, MSc. - ended Aug 06, thesis: 'Non-trivial algorithms for satisfiability'.
- Adnan Agbaria, MSc. ended 1997. Supervision together with Dr. Yosi Ben-Asher. Thesis: 'The P-PRAM model and Parallel algorithms'.

Publication List - Ilan Newman

1. Irith Ben-Arroyo Hartman, Ilan Newman and Ran Ziv, On Grid Intersection Graphs, *J. of Discrete Mathematics* 87(1991) 41-52. Also presented in the join French-Israeli conference on combinatorics, Jerusalem, 1988.
2. Shlomo Moran, Ilan Newman and Yaron Wolfstahl, Approximation Algorithms for Covering Graph by Vertex-Disjoint Paths of Maximum Total Weight. *Networks*, Vol 20(1990) 55-64.
3. Ilan Newman, On Read-Once Boolean functions, in 'Boolean function complexity: selected papers from LMS Symp. Durham, July 1990' Edited by M.S. Paterson, Cambridge U. Press. pp. 25-34.
4. Ilan Newman, Private vs. Common Random bits in communication complexity, *Information Processing Letters* 39(1991) 67-71.
5. Mauricio Karchmer, Nati Linial, Ilan Newman, Michael Saks and Avi Wigderson, Combinatorial Characterization of Read Once Formulae. in *J. Discrete Math.* 114 (1993) pp. 275–282. Also presented in the join French-Israeli conference on combinatorics, Jerusalem, 1988.
6. Rafi Heiman, Ilan Newman and Avi Wigderson, On Read Once Threshold Formulae and their Randomized Decision Tree Complexity. *J. of Theoretical Computer Science (TCS)*, 107 No. 1, 1993, pp. 63-76. Also in *Proc. of 6-th IEEE Symp. on Structures in Complexity Theory 1990*, 78-87.
7. Mauricio Karchmer, Ilan Newman, Michael Saks and Avi Wigderson, Non-deterministic Communication Complexity with Few Witnesses, *J. of Computer and System Sciences (JCSS)*, Vol. 49, no. 2, 1994, pp. 247-257. Also appeared under the title 'Covers of Small Degree - Restricted Non-deterministic Communication Complexity' in *7-th IEEE Symp. on Structures in Complexity Theory 1992*,
8. László Lovász, Moni Naor, Ilan Newman and Avi Wigderson, Search problem in the Decision Tree model, *SIAM journal on discrete math*, Vol 8, No. 1 (1995), pp. 119-132. Also in *32th IEEE Annual Symp. on Foundation of Comp. Sci. (FOCS91)* 576-585.
9. Yosi Ben-Asher and Ilan Newman, Decision trees with Boolean threshold queries, *J. of Computer and System Sciences (JCSS)*: 51(3): 495-502 (1995), also in *1995 10th IEEE Symp. on Structure in Complexity Theory*, pp. 74-81.
10. Ilan Newman and Assaf Schuster, Hot-Potato Worm Routing via Store-and-Forward Packet Routing, *Journal of Parallel and Distributed Computing*, Vol. 30, pp. 76–84, 1995, also in *Israeli Symp. on Theoretical Computer Sciences 1993 (ISTCS 93)*.
11. Ilan Newman and Assaf Schuster, Hot-Potato algorithms for permutation routing, *IEEE Trans. on Parallel and Distributed Systems (journal)*, Vol 6, No. 11, pp. 1168-1176 (1995).
12. Ilan Newman and Avi Wigderson, Lower Bounds on Formula Size of Boolean Functions using Hypergraph-Entropy, *SIAM J. of Discrete Math*, Vol. 8 no. 4 (1996), pp. 536-542, Also appeared at *6-th IEEE Symp on Structures in Complexity Theory 1990*, 91-99. (with P. Ragde) under the title 'Perfect Hashing and Graph-Entropy as applied to circuit and formulae complexity'.

13. Ilan Newman and Mario Szegedy, Public vs. Private coin flips in one round communication games, in the 28th Annual ACM Symposium on Theory of Computing, (STOC96) pp. 561-570, 1996, Philadelphia.
14. Ishay Ben Aroya, Ilan Newman and Assaf Schuster, Randomized Single-Target Hot-Potato Routing, J. of algorithms 23(1): 101-120 (1997), also in ISTCS 1995, pp. 20-29.
15. Yosi Ben-Asher and Ilan Newman, Geometric Approach for Optimal Routing on Mesh with Buses, J. of Computer and Systems Sciences (JCSS) 54:(3): 475-486 (1997), also in Proc. the 7th IEEE Symp. on Parallel and Distributed Processing, 1995 (SPDP 95).
16. Gene Itkis, Ilan Newman and Assaf Schuster. Broadcasting on a Budget in Multi-Service Communication Model, 1998 International Conference on High Performance Computing, India Dec 17 - Dec 20, 1998.
17. Yosi Ben-Asher, Eithan Farchi and Ilan Newman, Optimal Search in Trees, SIAM J. of Computing, Vol 28(6), 1999, 2090-2102 (first in the 8th Annual ACM-SIAM Symp. on Discrete Algorithms 1997, (SODA97), 739-746, New Orleans).
18. Pascal Berthomé, Thibault Duboux, Torben Hagerup, Ilan Newman and Assaf Schuster. Self-Simulation for the Passive Optical Star Model, J. of Algorithms 34(1): 128-147 (2000) (first appeared in Proc. 3rd European Symp. on Algorithms, published in Springer lecture notes in computer science, Vol. 979, 1995, pp. 369-380).
19. Noga Alon, Michael Krivelevich, Ilan Newman and Mario Szegedy. Regular Languages are Testable with a Constant Number of Queries, SIAM J. of Computing 30(6): pp. 1842-1862 (2000), (first in in FOCS99, 645-655).
20. Anupam Gupta, Ilan Newman, Yuri Rabinovich and Alistair Sinclair, Cuts, Trees and ℓ_1 -Embeddings of Graphs, in FOCS99, 399-408, final version in Combinatorica 24(2): 233-269 (2004).
21. Ilan Newman, Testing membership in languages that have small width Branching Programs, SIAM J. of Computing, Vol. 31, No. 5, pp. 1557-1570, 2002 (first in FOCS00 pp. 251-258).
22. Eldar Fischer and Ilan Newman, *Testing of matrix-poset properties*, Combinatorica 27(3): 293-327 (2007), (first appeared as part of a paper in STOC 2001, pp. 286-295).
23. Adnan Agbaria, Yosi Ben-Asher and Ilan Newman, Communication-Processor Tradeoffs in Limited Resources PRAM, Algorithmica 34 (2002) 3, 276-297 (first in SPAA99 pp. 74-82).
24. Eldar Fischer, Eric Lehman, Ilan Newman, Sofya Raskhodnikova, Ronitt Rubinfeld, Alex Samorodnitsky, Monotonicity testing over general poset domains, in STOC 2002 pp. 474-483.
25. Eldar Fischer, Ilan Newman and Jiri Sgall, Functions that have read-twice, constant width, branching programs are not necessarily testable, J. Random Structures & Algorithms, 24(2):175-193(2004). First in IEEE conference of Computational Complexity 2002, pp. 73-79.
26. Ilan Newman and Yuri Rabinovich, A lower bound on the distortion of embedding planar metrics into Euclidean space, J. Discrete & Computational Geometry, 29 (2003), no. 1, 77-81 first in the 18th ACM Annual Symposium on Computational Geometry (SoCG02), June 5-7, 2002, Barcelona, Spain, pp. 74-76.

27. Chandra Chekuri, Anupam Gupta, Ilan Newman, Yuri Rabinovich and Alistair Sinclair, Embedding k -Outerplanar Graphs into ℓ_1 , in the 14th Annual ACM-SIAM Symposium on Discrete Algorithms 2003, (SODA03), SIAM J. on Discrete Math. 20(1): 119-136 (2006).
28. Artur Czumaj, Funda Ergün, Lance Fortnow, Avner Magen, Ilan Newman, Ronitt Rubinfeld and Christian Sohler, Approximating the Weight of the Euclidean Minimum Spanning Tree in Sublinear Time, in the 14th Annual ACM-SIAM Symposium on Discrete Algorithms 2003, (SODA03), SIAM Journal of Computing, 35(1): 91-109 (2005).
29. Harry Buhrman, Lance Fortnow, Ilan Newman, Hein Röhrig, *Quantum property testing*, SIAM Journal on Computing (SICOMP), 37(5): 1387-1400 (2008). (first appeared in the 14th Annual ACM-SIAM Symposium on Discrete Algorithms 2003, (SODA03) and EQIS'01: Erato Quantum Information Science, September 6-8, 2001, Tokyo Japan).
30. Ilan Newman, Computing in fault tolerance broadcast networks, in IEEE Conference on Computational Complexity 2004: 113-122. Random Structures & Algorithms, vol 34(4): 478-501 (2008). A preliminary version appeared in IEEE Conference on Computational Complexity 2004 (CCC04'), pp. 113-122.
31. Harry Buhrman, Ilan Newman, Hein Röhrig, Ronald de Wolf, Robust Polynomials and Quantum Algorithms, Theory of Computing Systems, 40(4): 379-395 (2007) (special issue of STACS05)
32. Harry Buhrman, Lance Fortnow, Ilan Newman, Nikolai Vereshchagin, Increasing Kolmogorov Complexity, in STACS05, pp. 412-421.
33. Eldar Fischer, Ilan Newman, Testing versus Estimation of Graph Properties, SIAM Journal on Computing (SICOMP), 37(2): 482-501 (2007), first in STOC05.
34. Oded Lachish, Ilan Newman, *Testing Periodicity*, in Random-Approx 2005, Springer-Verlag Lecture Notes in Computer Science, LNCS 3624, pp 366-377, 2005, Algorithmica 60(2): 401-420 (2011).
35. Noga Alon, Ilan Newman, Alexander Shen, Gabor Tárdoš and Nikolai Vereshchagin, *Partitioning multi-dimensional sets in a small number of "uniform" parts*, European Journal of Combinatorics, 28(1): 134-144 (2007).
36. Sanjeev Arora, László Lovász, Ilan Newman, Yuval Rabani, Yuri Rabinovich, Santosh Vempala, Local versus Global Properties of Metric Spaces, SODA06, pp. 41-50, final version in SIAM J. Comput. 41(1): 250-271 (2012).
37. Noga Alon, Eldar Fischer, Ilan Newman and Asaf Shapira, *A Combinatorial Characterization of the Testable Graph Properties: It's All About Regularity*, in STOC06, pp. 251-260. Final version SIAM Journal on Computing (SICOMP), special issue for STOC06, 39 (1), pp. 143-167 (2009).
38. Oded Lachish, Ilan Newman and Asaf Shapira, *Space Complexity vs. Query Complexity*, Computational Complexity, 17(1): 70-93 (2008).
39. Oren Ben-Zwi, Oded Lachish and Ilan Newman, *Lower Bounds for Testing Euclidean Minimum Spanning Trees*, Information Processing Letters (IPL), 102 (2007), 219-225.

40. Noga Alon, Eldar Fischer and Ilan Newman, *Efficient testing of bipartite graphs for forbidden induced subgraphs*, SICOMP, 37 (3) (2007-8), 959-976.
41. *Hard Metrics From Cayley Graphs Of Abelian Groups*, in STACS07, Springer Lecture Notes in Computer Science, Vol 4393(2007), pp. 157-162, Theory of Computing (ToC), 5(1) (2009), 125-134.
42. Shirley Halevy, Oded Lachish, Ilan Newman and Dekel Tsur, *Testing Properties of Constraint-Graphs*, Proc. IEEE Conference on Computational Complexity 2007: 264-277.
43. Jean Cardinal, Erik D. Demaine, Samuel Fiorini, Gwenaël Joret, Stefan Langerman, Ilan Newman and Oren Weimann, *The Stackelberg Minimum Spanning Tree Game*, in Proc. WADS 2007, 64-76. *Algorithmica*, 59 (2), pp 129-144, 2011.
44. Sourav Chakraborty, Eldar Fischer, Oded Lachish, Arie Matsliah and Ilan Newman, *Testing st-Connectivity*, Proceedings of Random07, 380-394.
45. Gadi Haber, Roy Levin and Ilan Newman, *Complementing missing and inaccurate profiling using minimum cost circulation algorithms*, in Proc. of "2008 International Conference on High performance embedded Architecture & Compilers" (HiPeac08), Goetenberg, Sweden, 291-304.
46. Eldar Fischer, Oded Lachish, Arie Matsliah, Ilan Newman, Orly Yahalom, *On the Query Complexity of Testing Orientations for being Eulerian*, APPROX-RANDOM 2008, 402-415. Final version in ACM Transactions on Algorithms 8(2): 15 (2012).
47. Avivit Levy, Gad Landau, Ilan Newman, *LCS Approximation via Embedding into Local Non-Repetitive Strings*, Proc. Combinatorial Pattern Matching (CPM) 2009, 92-105. Final version in Information and Computation 209(4): 705-716 (2011).
48. Oren Ben-Zwi, Danny Hermelin, Daniel Lokshtanov and Ilan Newman, *An Exact Almost Optimal Algorithm for Target Set Selection in Social Networks* Proc. 10th ACM Electronic Commerce Conference (EC09), 355-362, Stanford, California July 6-10, 2009. A final version under the title 'Tree-Width Governs the Complexity of Target Set Selection', in J. Discrete Optimization 8(1): 87-96 (2011).
49. Oded Goldreich, Michael Krivelevich, Ilan Newman and Eyal Rozenberg, *Hierarchy Theorems for Property Testing*, in RANDOM-APPROX09, LNCS 5867 (2009), 504-519. Computational Complexity 21(1): 129-192 (2012).
50. Oren Ben-Zwi, Ilan Newman and Guy Wolfowitz, *Hats, auctions and derandomization*, to appear in RS& A. Preliminary (very partial) results in the 2nd Symp. on Algorithmic Game Theory (SAGT) 2009, 233-237, Cyprus.
51. Jean Cardinal, Erik D. Demaine, Samuel Fiorini, Gwenaël Joret, Ilan Newman and Oren Weimann, *The Stackelberg Minimum Spanning Tree Game on Planar and Bounded-Treewidth Graphs*, the 5th Workshop on Internet & Network economics, 125-136, (WINE 2009), Rome, Italy, to appear in Journal of Combinatorial Optimization.
52. Igor Kleiner, Daniel Keren, and Ilan Newman, *Applying Property Testing to an Image Partitioning Problem*, in IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI), 33(2): 256-265 (2011).

53. Victor Chepoi, Feodor F. Dragan, Ilan Newman, Yuri Rabinovich and Yann Vaxès, *Approximation algorithms for embedding graph metrics*, APPROX-2010 95-109, Aug. 2010, Barcelona, Spain. Disc & Comp. Geometry, 47(1): 187-214 (2012).
54. Ilan Newman, *Property Testing of Massively Parametrized problems - A survey*, Property-Testing 2010, Lecture Notes in Computer Science 6390 Springer 2010, 142-157.
55. Ilan Newman and Christian Sohler, *Every Property of Hyperfinite Graphs is Testable*, Proc. 43rd ACM Symposium on Theory of Computing, (STOC 2011), San Jose, CA, 6-8 June 2011, 675-684. To appear in SICOMP.
56. Ilan Newman and Yuri Rabinovich, *On Multiplicative λ -Approximations and Some Geometric Applications*, Proc. of the Twenty-Third Annual ACM-SIAM Symposium on Discrete Algorithms, (SODA 2012) 51-67, Kyoto, Japan, January 17-19, 2012. To appear in SICOMP.
57. Oren Ben-Zwi, Ron Lavi, Ilan Newman, *Ascending auctions and Walrasian equilibrium*, arXiv:1301.1153, <http://arxiv.org/abs/1301.1153>
58. Oren Ben-Zwi, Ilan Newman, *Optimal Bi-Valued Auctions*, arXiv:1106.4677, <http://arxiv.org/abs/1106.4677>