

# Noam Nisan

## Publication List

### Books

1. “Mathematical Logic Through Python”, Y. Gonczarowski and N. Nisan. To be published by Cambridge University Press (expected), 2022.
2. “Algorithmic Game Theory”, N. Nisan, T. Roughgarden, E. Tardos, and V. Vazirani, editors. Published by Cambridge University Press, 2007.
3. “Elements of Computing Systems”, N. Nisan and S. Schoken. Published by MIT press, 2005. (Chinese translation 2006, Polish translation 2007, Japanese translation 2015, second edition 2021, Russian translation expected 2022, Korean translation expected 2023.)
4. “Communication Complexity”, E. Kushilevitz and N. Nisan. Published by Cambridge University Press, 1997.
5. “Using Hard Problems to Create Pseudorandom Generators”, N. Nisan. Ph.D. thesis published by MIT press, 1991.

### Papers

1. “A Contractualist Approach to Threshold Deontology: The case of ex-post regulatory changes”, Ittay Nissan-Rozen, Udi Nisan and Noam Nisan. Manuscript.
2. “How and Why to Manipulate Your Own Agent”, Y. Kolumbus and N. Nisan. Manuscript.
3. “Auctions Between Regret Minimizing Agents”, Y. Kolumbus and N. Nisan. WWW 2022.
4. “Beyond Pigouvian Taxes: A Worst Case Analysis”, M. Babaioff, R. Mundel, and N. Nisan. WINE 2021.
5. “Bipartite Perfect Matching as a Real Polynomial”, G. Beniamini and N. Nisan. STOC 2021.

6. “The Demand Query Model for Bipartite Matching”, N. Nisan, SODA 2021.
7. “On the Effectiveness of Tracking and Testing in SEIR Models”, Y. Kolumbus and N. Nisan. Scientific Reports, Vol. 11: 1–14, 2021.
8. “Competitive Equilibria with Indivisible Goods and Generic Budgets”, M. Babaioff, N. Nisan, and I. Talgam-Cohen. Math. Oper. Res. 46(1): 382-403, 2021. (Preliminary versions in Match Up 2017 and FAT 2019.)
9. “Designing Committees for Mitigating Biases”, M. Feldman, Y. Mansour, N. Nisan, S. Oren, and M. Tennenholtz. AAAI 2020.
10. “The Communication Complexity of Local Search”, Yakov Babichenko, Shahar Dobzinski and Noam Nisan. STOC, 2019.
11. “Communication Complexity of Cake Cutting”, S. Branzei and N. Nisan. EC 2019.
12. “Matching for the Israeli Mechinot Gap Year: Handling Rich Diversity Requirements” by Y. Gonczarowski, L. Kovalio, N. Nisan and A. Romm. EC 2019. (Preliminary version in Workshop on Mechanism Design for Social Good 2018.) *Best paper award MATCH-UP 2019 and INFORMS AMD Michael H. Rothkopf Junior Researcher Paper Prize, 2020.*
13. “Economic Efficiency Requires Interaction”, S. Dobzinski, N. Nisan, and S. Oren. Games and Economic Behavior 118: 589-608, 2019. (Preliminary version in STOC 2014.)
14. “A stable marriage requires communication”, Yannai A. Gonczarowski, Noam Nisan, Rafail Ostrovsky, Will Rosenbaum. Games and Economic Behavior 118: 626-647, 2019. (Preliminary version in SODA 2015.)
15. “Selling multiple correlated goods: Revenue maximization and menu-size complexity”, S. Hart and N. Nisan, J. Economic Theory 183: 991-1029, 2019.
16. “Universal Growth in Production Economies”, S Brnzei, R Mehta, and N Nisan. NIPS 2018.

17. “Optimal Deterministic Mechanisms for an Additive Buyer”, M. Babaioff, N. Nisan, and A. Rubinstein. EC 2018.
18. “The Query Complexity of Correlated Equilibria”, S. Hart and N. Nisan. Games and Economic Behavior, 108:401-410, 2018. (Preliminary version appeared in SAGT 2013.)
19. “Public Projects, Boolean Functions, and the Borders of Border’s Theorem”, P. Gopalan, N. Nisan, and T. Roughgarden. ACM Trans. Economics and Comput. 6(3-4): 18:1-18:21, 2018. (Preliminary version appeared in EC 2015.)
20. “The Query Complexity of Cake Cutting”, S. Branzei and N. Nisan. arXiv preprint 2017.
21. “Selling Complementary Goods”, M. Babaioff, L. Blumroen, and N. Nisan, ICALP 2017.
22. “A Quantal Regret Method for Structural Econometrics in Repeated Games”, N. Nisan and G. Noti. EC 2017.
23. “The Menu-Size Complexity of Revenue Approximation”, M. Babaioff, Y. A. Gonczarowski, and N. Nisan. STOC 2017.
24. “Efficient Empirical Revenue Maximization in Single-Parameter Auction Environments”, Y. A. Gonczarowski and N. Nisan. STOC 2017.
25. “ERA: A Framework for Economic Resource Allocation for the Cloud”, M. Babaioff, Y. Mansour, N. Nisan, G. Noti, C. Curino, N. Ganapathy, I. Menache, O. Reingold, M. Tennenholtz and E. Timnat. WWW 2017 (Industrial track).
26. “An Experimental Evaluation of Regret-Based Econometrics”, N. Nisan and G. Noti. WWW 2017. (Also preliminary version in EC Workshop on Algorithmic Game Theory and Data Science 2016.)
27. “Approximate Revenue Maximization with Multiple Items”, S. Hart and N. Nisan. Journal of Economic Theory 172C, pp. 313-347, 2017. (Preliminary version in ACM EC 2012.)
28. “Correlated and Coarse equilibria of Single-item auctions”, M. Feldman, B. Lucier, and N. Nisan. WINE 2016.

29. “Networks of Complements”, M. Babaioff, L. Blumrosen, and N. Nisan. ICALP 2016.
30. “Smooth Boolean functions are easy: efficient algorithms for low-sensitivity functions”, P. Gopalan, N. Nisan, R. A. Servedio, K. Talwar, and A. Wigderson. ITCS 2016.
31. “The AND-OR Game”, Avinatan Hassidim, Haim Kaplan, Y. Mansour, and N. Nisan, ACM Transactions on Economics and Computation 5(1), 2016. (Preliminary version in WINE 2012.)
32. “Welfare Maximization with Limited Interaction”, N. Alon, N. Nisan, R. Raz and O. Weinstein. FOCS 2015.
33. “Online Ascending Auctions for Gradually Expiring Goods”, R. Lavi and N. Nisan. Journal of Economic Theory 156, 45-76, 2015. (Preliminary version appeared in SODA 2005.)
34. “Multi-unit auctions: beyond Roberts”, S Dobzinski, N Nisan. Journal of Economic Theory 156, 14-44, 2015. (Preliminary version in ACM EC 2011.)
35. “Sampling and Representation Complexity of Revenue Maximization”, S. Dughmi, L. Han, and N. Nisan. WINE 2014.
36. “On the Efficiency of the Walrasian Mechanism”, M. Babaioff, B. Lucier, N. Nisan, and R. Paes Leme. ACM EC, 2014.
37. “Economic Efficiency Requires Interaction”, S. Dobzinski, N. Nisan, and S. Oren. STOC, 2014.
38. “Algorithmic Mechanism Design (through the lens of multi-unit auctions)”, N. Nisan. Handbook of Game Theory IV, 2014.
39. “An Experimental Evaluation of Bidders’ Behavior in Ad Auctions”, G. Noti, N. Nisan, and I. Yaniv. WWW 2014.
40. “Price Competition in Online Combinatorial Markets”, M. Babaioff, N. Nisan, and R. Paes Leme. WWW 2014.
41. “The Menu-Size Complexity of Auctions”, S. Hart and N. Nisan, ACM EC 2013.

42. “Bertrand Competition”, M. Babaioff, B. Lucier, and N. Nisan, ACM EC 2013.
43. “Incentive Compatible Two Player Cake Cutting”, A. Maya and N. Nisan, WINE 2012.
44. “Sketching Valuation Functions”, A. Badanidiyuru, S. Dobzinski, H. Fu, R. Kleinberg, N. Nisan and T. Roughgarden. SODA 2012.
45. “Fair Allocation Without Trade”, A. Gutman and N. Nisan. AAMAS 2012.
46. “Multi-unit Auctions with Budget Limits”, S. Dobzinski, R. Lavi, and N. Nisan. *Games and Economic Behavior* 74(2): 486-503, 2012. (Preliminary version in FOCS 2008.)
47. “Truthful randomized mechanisms for combinatorial auctions”, S. Dobzinski, N. Nisan, and M. Schapira, *J. Comput. Syst. Sci.* 78(1): 15-25, 2012. (Preliminary version in STOC 2006.)
48. “Combinatorial Agency”, M. Babaioff, M. Feldman, N. Nisan, and E. Winter. *J. Economic Theory* 147(3): 999-1034, 2012. (Preliminary version by the first three authors in ACM EC 2006.)
49. “Best Response Auctions”, N. Nisan, M. Schapira, G. Valiant, and A. Zohar. ACM EC 2011.
50. “Non-Price Equilibria in Markets of Discrete Goods”, A. Hassidim, H. Kaplan, Y. Mansour, and N. Nisan. ACM EC 2011.
51. “Best Response Mechanisms”, N. Nisan, M. Schapira, G. Valiant, and A. Zohar. ICS 2011.
52. “A Quantitative Version of the Gibbard-Satterthwaite Theorem for Three Alternatives”, E. Friedgut, G. Kalai, N. Keller, and N. Nisan. *SIAM J. Comput.* 40(3): 934-952, 2011. (Preliminary version titled “Elections Can be Manipulated Often” by E. Friedgut, G. Kalai, and N. Nisan in FOCS 2008.)
53. “Limitations of VCG-based mechanisms”, S. Dobzinski and N. Nisan. *Combinatorica* 31(4): 379-396, 2011. (Preliminary version in STOC 2007.)

54. “Approximation Algorithms for Combinatorial Auctions with Complement-Free Bidders”, S. Dobzinski, N. Nisan, and M. Schapira. *Mathematics of Operations Research* 35: 1 - 13, February 2010. (Preliminary version in STOC 2005.)
55. “Mechanisms for Multi-Unit Auctions”, S. Dobzinski and N. Nisan. *JAIR* Volume 37, pages 85-98, 2010. (Preliminary version in ACM EC 2007.)
56. “Informational Limitations of Ascending Combinatorial Auctions”, L. Blumrosen and N. Nisan. *Journal of Economic Theory (JET)*, 145(3):1203-1223, May 2010. (Preliminary version is part of “The Computational Power of Iterative Auctions” in ACM EC 2005.)
57. “Mixed Strategies in Combinatorial Agency”, M. Babaioff, M. Feldman, and N. Nisan. *J. Artif. Intell. Res. (JAIR)* 38: 339-369, 2010. (Preliminary version in WINE 2006.)
58. “Google’s Auction for TV Ads”, Noam Nisan, Jason Bayer, Deepak Chandra, Tal Franji, Robert Gardner, Yossi Matias, Neil Rhodes, Misha Seltzer, Danny Tom, Hal R. Varian, and Dan Zigmond. Invited paper in ICALP 2009. (Also invited talks in SAGT 2009, EURO 2009, SODA 2010, and COLT 2010.)
59. “Free-Riding and Free-Labor in Combinatorial Agency”, Moshe Babaioff, Michal Feldman, and Noam Nisan. SAGT 2009.
60. “A Modular Approach to Roberts’ Theorem”, Shahar Dobzinski, and Noam Nisan. SAGT 2009.
61. “A synthesis course in hardware architecture, compilers, and software engineering”, Shimon Schocken, Noam Nisan, and Michal Armoni. SIGCSE 2009.
62. “Mechanisms for a spatially distributed market”, Moshe Babaioff, Noam Nisan, and Elan Pavlov. *Games and Economic Behavior*, 66 (2), p.660-684, 2009. (Preliminary version appeared in ACM EC 2004.)
63. “Two simplified proofs for Roberts theorem”, Ron Lavi, Ahuva Mu’alem, and Noam Nisan. *Social Choice and Welfare* 32 (3), p. 407-423, 2009.

64. “On the Computational Power of Demand Queries”, Liad Blumrosen and Noam Nisan: *SIAM J. Comput.* 39(4): 1372-1391, 2009. (Preliminary version is part of “The Computational Power of Iterative Auctions” in ACM EC 2005.)
65. “FairplayMP: a system for secure multi-party computation”, Assaf Ben-David, Noam Nisan, and Benny Pinkas. ACM Conference on Computer and Communications Security 2008.
66. “Asynchronous Best-Reply Dynamics”, Noam Nisan, Michael Schapira, and Aviv Zohar: . WINE 2008.
67. “Theory research at Google”, Gagan Aggarwal, Nir Ailon, Florin Constantin, Eyal Even-Dar, Jon Feldman, Gereon Frahling, Monika Rauch Henzinger, S. Muthukrishnan, Noam Nisan, Martin Pal, Mark Sandler, and Anastasios Sidiropoulos. *SIGACT News* 39(2): 10-28 (2008)
68. “Compact name-independent routing with minimum stretch”, Ittai Abraham, Cyril Gavoille, Dahlia Malkhi, Noam Nisan, and Mikkel Thorup. *ACM Transactions on Algorithms* 4(3), 2008. (Preliminary version appeared in SPAA 2004.)
69. “Truthful approximation mechanisms for restricted combinatorial auctions”, Ahuva Mu’alem and Noam Nisan. *Games and Economic Behavior*, 64 (2), p.612-631, 2008. (Preliminary version appeared in AAAI 2002.)
70. “Auctions with severely bounded communication”, L. Blumrosen, N. Nisan, and I. Segal. *JAIR* 28, 2007. (Preliminary versions appeared in FOCS 2002 and ESA 2003.)
71. “Computationally Feasible VCG mechanisms”, N. Nisan and A. Ronen. *JAIR* 28, 2007. Winner of IJCAI-JAIR 2011 Best 5-year Paper Prize. (Preliminary version appeared in ACM EC 2000.) *IJCAI-JAIR Best (5-year) Paper Prize, 2011.*
72. “Combinatorial Auctions”, L. Blumrosen and N. Nisan. Chapter in “Algorithmic Game Theory” N. Nisan, T. Roughgarden, E. Tardos, and V. Vazirani (eds.), Cambridge University Press, 2007.
73. “Introduction to Mechanism Design (for Computer Scientist)”, N. Nisan. Chapter in “Algorithmic Game Theory” N. Nisan, T. Rough-

- garden, E. Tardos, and V. Vazirani (eds.), Cambridge University Press, 2007.
74. “A Note on the Computational Hardness of Evolutionary Stable Strategies”, N. Nisan. ECCC technical report, 2006.
  75. “Combinatorial Auctions with Decreasing Marginal Utilities”, B. Lehmann, D. Lehmann, and N. Nisan. *Games and Economic Behavior*, 55:2, Pages 270-296, 2006 (Preliminary version appeared in ACM EC 2001.)
  76. “Weak Monotonicity characterizes deterministic dominant strategy implementation”, S. Bikhchandani, S. Chatterji, R. Lavi, A. Mu’alem, N. Nisan, and A. Sen. *Econometrica* 74:4, pages 1109 – 1132, 2006.
  77. “The Communication Complexity of Efficient Allocation Problems and Supporting Prices”, N. Nisan and I. Segal. *Journal of Economic Theory*, 129:1, Pages 192-224, 2006. *SigEcom test of time award 2019*.
  78. “Bidding Languages for Combinatorial Auctions, N. Nisan. Chapter in “Combinatorial Auctions” P. Cramton, Y. Shoham and R. Steinberg (eds.), 2006.
  79. “Exponential Communication Efficiency of Demand Queries”, N. Nisan and I. Segal. TARK 2005.
  80. “Fairplay - Secure Two-Party Computation System”, D. Malkhi, N. Nisan, B. Pinkas, and Y. Sella. *Usenix Security Symposium*, 2004. *Best student paper*.
  81. “Concurrent Auctions Across the Supply Chain”, M. Babaioff and N. Nisan, *JAIR* (21), pp. 595-629, 2004. (Preliminary version appeared in ACM EC 2001.)
  82. “Competitive Analysis of Online Auctions”, R. Lavi and N. Nisan. *TCS* 310 (1-3), pp. 159-180, 2004. (Preliminary version appeared in ACM EC 2000.)
  83. “Towards a Characterization of Truthful Combinatorial Auctions”, R. Lavi, A. Mualem, and N. Nisan. *FOCS* 2003.
  84. “Incentive Compatible Multi-unit Combinatorial Auctions”, Y. Bartal, R. Gonen, and N. Nisan. TARK 2003.



85. “The Communication Complexity of Approximate Set Packing and Covering”, N. Nisan. ICALP 2002.
86. Neighborhood Preserving Hashing and Approximate Queries, D.Dolev, Y.Harari, N.Linial, N.Nisan, M.Parnas. SIAM Journal on Discrete Mathematics, Volume 15, Number 1, pp. 73-85, 2002. (Preliminary version appeared in SODA 1994.)
87. “Online Markets for Distributed Object Services: the MAJIC system”, L. Levi, L. Blumrosen, and N. Nisan. USITS 2001.
88. “An Efficient Approximate Allocation Algorithm for Combinatorial Auctions”, E. Zurel and N. Nisan. ACM EC 2001.
89. “Algorithmic Mechanism Design”, N. Nisan and A. Ronen. Games and Economic Behaviour 35, pages 166 – 196, 2001. (Preliminary version appeared in STOC 1999.) *Godel Award 2012.*
90. Bidding and Allocation in Combinatorial Auctions”, N. Nisan. ACM EC 2000.
91. “The POPCORN Market - an Online Market for Computational Resources”, Ori Regev and Noam Nisan, invited to special issue of Decision Support Systems 28, pp. 177-189, 2000. (Preliminary Version appeared in ICE 1998.)
92. “Algorithms for Selfish Agents”, N. Nisan. Invited to STACS 1999.
93. “Products and Help Bits in Decision Trees”, N. Nisan, S. Rudich, and M. Saks. Siam J. Computation 28(3), pp. 1035–1050, 1999. (Preliminary version appeared in FOCS 1994.)
94. “Extracting Randomness – a survey and new constructions”, N. Nisan and A. Ta-Shma. Invited to special issue of JCSS 58, pp. 148–173, 1999.
95. “Fast connected components algorithms for the EREW PRAM”, D. Karger, N. Nisan and M. Parnas. SIAM Journal on Computing Volume 28, Number 3 pp. 1021-1034, 1999. (Preliminary version appeared in SPAA 1992.)
96. “On one-round randomized communication complexity”, I. Kremer, N. Nisan and D. Ron, Computational Complexity 8(1), pp. 21–49, 1999. (Preliminary version appeared in STOC 1995.)

97. “Globally Distributed Computation over the Internet – The POP-CORN Project”, Noam Nisan, Shmulik London, Ori Regev, and Noam Camiel, ICDCS 1998. (Preliminary version appeared in WWWC 1997.)
98. “Quantum Circuits with Mixed States”, Dorit Aharonov, Alexei Kitaev, and Noam Nisan. FOCS 1998.
99. “Approximations of general independent distributions”, G. Even, O. Goldreich, M. Luby, N. Nisan and B. Velickovic. Random Structures and Algorithms Vol. 13, No. 1, pp. 1–16, 1998. (Preliminary version appeared in STOC 1992.)
100. “Data structures and asymmetric communication complexity”, P. B. Miltersen, N. Nisan, M. Safra, and A. Wigderson, Journal of Computer and System Sciences, 57(1), pp. 37–49, 1998. (Preliminary version appeared in STOC 1995.)
101. “Pointer jumping requires concurrent read”, Z. Bar-Yossef and N. Nisan, STOC 1997.
102. “Lower Bounds on Arithmetic Circuits via Partial Derivatives”, N. Nisan and A. Wigderson, Computational Complexity 6(3), pp. 217–234, 1997. (Preliminary version appeared in FOCS 1995.)
103. “How and why to extract randomness”, N. Nisan. Invited to Structures 1996.
104. “Randomness is Linear in Space”, N. Nisan and D. Zuckerman. J. Comp. Sys. Sci 52(1), pp. 43-52, 1996. (Preliminary version appeared in STOC 1993 under the title “More deterministic simulation in Logspace”.)
105. “On the Complexity of bilinear forms”, N. Nisan and A. Wigderson, STOC 1995.
106. “Fractional Covers and Communication Complexity”, M.Karchmer, E. Kushilevitz, and N. Nisan. Siam J. Discrete Math 8, 1995. (Preliminary version appeared in Structures 1992.)
107. “Symmetric Logspace is closed under complement”, N. Nisan and A. Ta-Shma, Chicago Journal of Theoretical Computer Science 1 (1), 1995. (Preliminary version appeared in STOC 1995.)

108. “On Rank vs. Communication Complexity”, N. Nisan and A. Wigderson. *Combinatorica* 15 (4), pp. 557-565, 1995. (Preliminary version appeared in FOCS 1994.)
109. “Amortized communication complexity”, T. Feder, E. Kushilevitz, M. Naor, and N. Nisan. *Siam J. Computation* 24(4), pp 736–750, 1995.
110. “On Constructing 1-1 One-Way Functions” by Oded Goldreich, Leonid A. Levin, and Noam Nisan. ECCC technical report, 1995.
111. “On Yao’s XOR-Lemma” by Oded Goldreich, Noam Nisan, and Avi Wigderson. ECCC technical report, 1995.
112. “Tradeoffs between communication throughput and parallel time”, Y. Mansour, N. Nisan, and U. Vishkin. STOC 1994.
113. “Pseudorandomness for Network Algorithms”, R. Impagliazzo, N. Nisan, and A. Wigderson. STOC 1994.
114. “ $RL \subseteq SC$ ”, N. Nisan. *Journal of Computational Complexity* 4, 1994. (Preliminary version appeared in STOC 1992.)
115. “On the degree of boolean functions as real polynomials”, N. Nisan and M. Szegedy. *Journal of Computational Complexity* 4, 1994, pp. 301-313. (Preliminary version appeared in STOC 1992.)
116. “Hardness vs. Randomness”, N. Nisan and A. Wigderson. Invited paper in special issue of *J. of Comp. Sci. and Sys* 49 (2), pp. 149-167, 1994. (Preliminary version appeared in FOCS 1988 and as an invited talk to Structures 1989.)
117. “A parallel approximation algorithm for the positive linear programming problem”, M. Luby and N. Nisan. STOC 1993.
118. “The communication complexity of threshold gates”, N. Nisan. Invited talk to “Combinatorics, Paul Erdos is Eighty” conference, proceedings published by Bolyai Society of Mathematical Studies, 1993.
119. “Probabilistic analysis of network flow algorithms”, R. Karp, R. Motwani and N. Nisan. *Math. of Operations Research* 18, pp. 71-97, 1993.

120. “Rounds in communication complexity revisited”, N. Nisan and A. Wigderson. *Siam J. of Comp.* 22 (1), pp. 211-219, 1993. (Preliminary version appeared in STOC 1991.)
121. “BPP has weak subexponential simulations unless EXPTIME has publishable proofs”, L. Babai, L. Fortnow, N. Nisan and A. Wigderson. *J. of Computational Complexity* 3, pp. 307-318, 1993. (Preliminary version appeared in Structures 1991.)
122. “The effect of Random restriction on formula size”, R. Impagliazzo and N. Nisan. *J. Random structures and Algorithms* 4 (2), pp. 121-133, 1993.
123. “On dice and coins: models of computation for uniform generation”, D. Feldman, R. Impagliazzo, M. Naor, N. Nisan, S. Rudich and A. Shamir. *Information and Computation* 104 (2), pp. 159-174, 1993. (Preliminary version appeared in ICALP 1989.)
124. “Constant depth circuits, Fourier transform, and learnability”, N. Linial, Y. Mansour and N. Nisan. *J. of the ACM* 40 (3), pp. 607–620, 1993. (Preliminary version appeared in FOCS 1989.) *FOCS Test of Time Award 2019.*
125. “Time-space tradeoffs for universal hashing”, Y. Mansour, N. Nisan and P. Tiwari. Invited paper in special issue of *Theor. Comp. Sci.* 107, pp.121-133, 1993. (Preliminary version appeared in STOC 1990.)
126. “On read-once vs. multiple access to randomness in Logspace”, N. Nisan. Invited paper in special issue of *Theor. Comp. Sci.* 107, 1993, pp. 135-144. (Preliminary version appeared in Structures 1990.)
127. “Undirected connectivity in  $O(\log^{1.5} n)$  space”, N. Nisan, E. Szemerédi and A. Wigderson. *FOCS* 1992.
128. “Pseudorandom generators for space-bounded computation”, N. Nisan. *Combinatorica* 12 (4), 1992, pp. 449-461. (Preliminary version appeared in STOC 1990.) *STOC Test of time award 2022.*
129. “Algebraic methods for interactive proof systems”, C. Lund, L. Fortnow, H. Karloff and N. Nisan. *J. of the ACM* 39 (4), 1992, pp. 859-868. (Preliminary version appeared in FOCS 1990.) *FOCS test of Time award 2020.*

130. "Multipart protocols, Pseudorandom generators for Logspace and time-space tradeoffs", L. Babai, N. Nisan and M. Szegedy. Invited paper in *J. of Comp. Sci. and Sys*, 45 (2), pp. 204-232, 1992. (Preliminary version appeared in STOC 1989.)
131. "Lower bounds for non-commutative computation", N. Nisan. STOC 1991.
132. "CREW PRAMs and decision trees", N. Nisan. *Siam J. on Computation* 20 (6), pp. 999-1007, 1991. (Preliminary version appeared in STOC 1989.)
133. "Pseudorandom bits for constant depth circuits", N. Nisan. *Combinatorica* 11 (1), pp. 63-70, 1991.
134. "Lower bounds on random-self-reducability", J. Feigenbaum, S. Kannan and N. Nisan. *Structures* 1990.
135. "Approximate inclusion-exclusion", N. Linial and N. Nisan. *Combinatorica* 10 (4), pp. 349-365, 1990. (Preliminary version appeared in STOC 1990.)
136. "On the cover time of random walks in graphs", J. Kahn, N. Linial, N. Nisan and M. Saks. *J. of Theoretical Probability* 2 (1), 1989.
137. "Parallel algorithms for 0-1 supply-demand problems", N. Nisan and D. Soroker. *Siam J. of Discrete Math.* 2 (1), pp. 108-125, 1989.