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László Babai

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[35] László Babai. Monte Carlo algorithms in graph isomorphism testing. Tech. Rep. 79–10, Université de Montréal, 1979. URL `http://people.cs.uchicago.edu/~laci/lasvegas79.pdf`. 42 pages.

[53] László Babai. On the order of uniprimitive permutation groups. *Ann. of Math.*, 113(3): 553–568, 1981. URL `http://www.jstor.org/stable/2006997`.

[59] László Babai. On the order of doubly transitive permutation groups. *Inventiones Math.*, 65(3):473–484, 1982. doi:10.1007/BF01396631.

[114] László Babai. Vertex-transitive graphs and vertex-transitive maps. *J. Graph Theory*, 15 (6):587–627, 1991. doi:10.1002/jgt.3190150605.

[72] László Babai. Trading group theory for randomness. In *Proc. 17th STOC*, pages 421–429. ACM Press, 1985. doi:10.1145/22145.22192.

[89] László Babai and Shlomo Moran. Arthur-Merlin games: A randomized proof system and a hierarchy of complexity classes. *J. Comput. System Sci.*, 36(2):254–276, 1988. doi:10.1016/0022-0000(88)90028-1.

[99] László Babai, Lance Fortnow, and Carsten Lund. Nondeterministic exponential time has two-prover interactive protocols. In *Proc. 31st FOCS*, pages 16–25. IEEE Comp. Soc. Press, 1990. doi:10.1109/FSCS.1990.89520. See item 1991.108.

[108] László Babai, Lance Fortnow, and Carsten Lund. Nondeterministic exponential time has two-prover interactive protocols. *Comput. Complexity*, 1(1):3–40, 1991. doi:10.1007/BF01200056. Full version of 1990.99.

[65] László Babai, Peter J. Cameron, and Péter P. Pálfy. On the orders of primitive groups with restricted nonabelian composition factors. *J. Algebra*, 79(1):161–168, 1982. doi:10.1016/0021-8693(82)90323-4.

[93] László Babai, Noam Nisan, and Mario Szegedy. Multiparty protocols and Logspace-hard pseudorandom sequences. In *Proc. 21st STOC*, pages 1–11. ACM Press, 1989. doi:10.1145/73007.73008. See 1992.126.

[126] László Babai, Noam Nisan, and Mario Szegedy. Multiparty protocols, pseudorandom generators for Logspace, and time-space trade-offs. *J. Comput. System Sci.*, 45(2):204–232, 1992. doi:10.1016/0022-0000(92)90047-M. Special issue. Full version of item 1989.93.

[71] László Babai. On Lovász' lattice reduction and the nearest lattice point problem. In *Proc. 2nd Symp. Theoretical Aspects of Comp. Sci. (STACS'85)*, volume 182 of *Springer Lecture Notes in Comp. Sci.*, pages 13–20. Springer, 1985. doi:10.1007/BFb0023990. See 1986.77.

[77] László Babai. On Lovász' lattice reduction and the nearest lattice point problem. *Combinatorica*, 6(1):1–13, 1986. doi:10.1007/BF02579403. Full version of 1985.71.

[107] László Babai. Local expansion of vertex-transitive graphs and random generation in finite groups. In *Proc. 23rd STOC*, pages 164–174. ACM Press, 1991. doi:10.1145/103418.103440.

[136] Sanjeev Arora, László Babai, Jacques Stern, and Z. (Elizabeth) Sweedyk. The hardness of approximate optima in lattices, codes, and systems of linear equations. In *Proc. 34th FOCS*, pages 724–733, Palo Alto CA, 1993. IEEE Comp. Soc. Press. doi:10.1109/SFCS.1993.366815. Conference version of item 1997:160.

[160] Sanjeev Arora, László Babai, Jacques Stern, and Z. (Elizabeth) Sweedyk. The hardness of approximate optima in lattices, codes, and systems of linear equations. *J. Comput. System Sci.*, 54(2):317–331, 1997. doi:10.1006/jcss.1997.1472. Full version of 1993.136.

[64] László Babai, Dmitri Yu. Grigor'ev, and David M. Mount. Isomorphism of graphs with bounded eigenvalue multiplicity. In *Proc. 14th STOC*, pages 310–324. ACM Press, 1982. doi:10.1145/800070.802206.

[124] László Babai and Péter Frankl. *Linear Algebra Methods in Combinatorics, with Applications to Geometry and Computer Science*. Univ. of Chicago Dept. Computer Sci., 1992. URL `http://www.cs.uchicago.edu/research/publications/combinatorics`. Unpublished, preliminary version 2, 216 pages.

[157] László Babai, Albert J. Goodman, William M. Kantor, Eugene M. Luks, and Péter P. Pálfy. Short presentations for finite groups. *J. Algebra*, 194(1):79–112, 1997. doi:10.1006/jabr.1996.6980.

[120] László Babai and Mario Szegedy. Local expansion of symmetrical graphs. *Combin. Probab. Comput.*, 1(1):1–11, 1992. doi:10.1017/S0963548300000031.

[175] Lajos Rónyai, László Babai, and Murali K. Ganapathy. On the number of zero-patterns of a sequence of polynomials. *J. Amer. Math. Soc.*, 14(3):717–735, 2001. doi:10.1090/S0894-0347-01-00367-8. URL `http://people.cs.uchicago.edu/~laci/papers/zero.pdf`.

[4] László Babai. Groups of graphs on given surfaces. *Acta Math. Acad. Sci. Hung.*, 24(1-2): 215–221, 1973. doi:10.1007/BF01894629.

[67] László Babai and Eugene M. Luks. Canonical labeling of graphs. In *Proc. 15th STOC*, pages 171–183. ACM Press, 1983. doi:10.1145/800061.808746.

[169] László Babai and Robert Beals. A polynomial-time theory of black box groups I. In C.M. Campbell, E.F. Robertson, N. Ruskuc, and G. C. Smith, editors, *Groups St Andrews 1997 in Bath, I*, London Math. Soc. Lect. Notes, pages 30–64. Cambr. U. Press, 1999. URL `http://people.cs.uchicago.edu/~laci/papers/bath1.pdf`.

[180] László Babai, Robert Beals, and Ákos Seress. On the diameter of the symmetric group: Polynomial bounds. In *Proc. 15th Ann. ACM-SIAM Symp. on Discrete Algorithms (SODA'04)*, pages 1108–1112. ACM–SIAM, SIAM, 2004.

[70] László Babai and Endre Szemerédi. On the complexity of matrix group problems I. In *Proc. 25th FOCS*, pages 229–240. IEEE Comp. Soc. Press, 1984. doi:10.1109/SFCS.1984.715919.

[178] László Babai, William M. Kantor, Péter P. Pálfy, and Ákos Seress. Black-box recognition of finite simple groups of Lie type by statistics of element orders. *J. Group Theory*, 5 (4):383–401, 2002. doi:10.1515/jgth.2002.010. URL `http://people.cs.uchicago.edu/~laci/papers/bkps.pdf`.

[79] László Babai, Péter Frankl, and Janos Simon. Complexity classes in communication complexity theory. In *Proc. 27th FOCS*, pages 337–347. IEEE Comp. Soc. Press, 1986. doi:10.1109/SFCS.1986.15.

[176] László Babai, Péter Frankl, Samuel Kutin, and Daniel Štefankovič. Set systems with restricted intersections modulo prime powers. *J. Combin. Theory Ser. A*, 95(1):39–73, 2001. doi:10.1006/jcta.2000.3149. URL `http://people.cs.uchicago.edu/~laci/papers/bfks1.pdf`.

[191] László Babai, Nikolai Nikolov, and László Pyber. Product growth and mixing in finite groups. In *Proc. 19th Ann. ACM-SIAM Symp. on Discrete Algorithms (SODA'08)*, pages 248–257. ACM–SIAM, SIAM, 2008. URL `http://people.cs.uchicago.edu/~laci/papers/bnp-soda08.pdf`. Full paper in preparation.

[111] László Babai, Lance Fortnow, Noam Nisan, and Avi Wigderson. BPP has subexponential time simulations unless EXPTIME has publishable proofs. In *Proc. 6th IEEE Conf. on Structure in Complexity Theory (SCT'91)*, pages 213–219, Chicago, 1991. IEEE, IEEE Comp. Soc. Press. doi:10.1109/SCT.1991.160263. Conference version of 1993:138.

[138] László Babai, Lance Fortnow, Noam Nisan, and Avi Wigderson. BPP has subexponential time simulations unless EXPTIME has publishable proofs. *Comput. Complexity*, 3(4): 307–318, 1993. doi:10.1007/BF01275486. Full version of item 1991.111.

[40] László Babai. On the complexity of canonical labelling of strongly regular graphs. *SIAM J. Comput.*, 9(1):212–216, 1980. doi:10.1137/0209018.

[203] László Babai and John Wilmes. Quasipolynomial-time canonical form for Steiner designs. In *Proc. 45th STOC*, pages 261–270. ACM Press, 2013. doi:10.1145/2488608.2488642.

[205] László Babai, Xi Chen, Xiaorui Sun, Shang-Hua Teng, and John Wilmes. Faster canonical forms for strongly regular graphs (extended abstract). In *Proc. 54th FOCS*, pages 157–166. IEEE Comp. Soc. Press, 2013. doi:10.1109/FOCS.2013.25. Available on author's website.

[206] László Babai. On the automorphism groups of strongly regular graphs I. In *Proc. 5th Innovations in Theoretical Comp. Sci. Conf. (ITCS'14)*, pages 359–368. ACM Press, 2014. doi:10.1145/2554797.2554830. Available on author's website.

[192] László Babai and Paolo Codenotti. Isomorphism of hypergraphs of low rank in moderately exponential time. In *Proc. 49th FOCS*, pages 667–676. IEEE Comp. Soc. Press, 2008. doi:10.1109/FOCS.2008.80. URL `http://people.cs.uchicago.edu/~laci/papers/hypergraphiso.pdf`. NSF Grant CCF-0830370.

[194] László Babai, Robert Beals, and Ákos Seress. Polynomial-time theory of matrix groups. In *Proc. 41st STOC*, pages 55–64. ACM Press, 2009. doi:10.1145/1536414.1536425. URL `http://people.cs.uchicago.edu/~laci/papers/09matrix.pdf`. NSF Grant CCF-0830370.

[81] Noga Alon, László Babai, and Alon Itai. A fast and simple randomized parallel algorithm for the maximal independent set problem. *J. Algorithms*, 7(4):567–583, 1986. doi:10.1016/0196-6774(86)90019-2.

[105] László Babai, Lance Fortnow, Leonid A. Levin, and Mario Szegedy. Checking computations in polylogarithmic time. In *Proc. 23rd STOC*, pages 21–32. ACM Press, 1991. doi:10.1145/103418.103428.

[193] László Babai, Péter P. Pálfy, and Jan Saxl. On the number of p-regular elements in finite simple groups. *LMS Journal of Computation and Mathematics*, 12:82–119, 2009. doi:10.1112/S1461157000000036. NSF Grants CCR-9732205 and CCF-0830370.

[90] László Babai. A short proof of the non-uniform Ray-Chaudhuri–Wilson inequality. *Combinatorica*, 8(1):133–135, 1988. doi:10.1007/BF02122561.

[113] Noga Alon, László Babai, and Hiroshi Suzuki. Multilinear polynomials and Frankl–Ray-Chaudhuri–Wilson type inequalities. *J. Combin. Theory Ser. A*, 58(2):165–180, 1991. doi:10.1016/0097-3165(91)90058-O.

[179] László Babai, Amir Shpilka, and Daniel Štefankovič. Locally testable cyclic codes. In *Proc. 44th FOCS*, pages 116–125. IEEE Comp. Soc. Press, 2003. doi:10.1109/SFCS.2003.1238186. Conference version of item 2005:185.

[185] László Babai, Amir Shpilka, and Daniel Štefankovič. Locally testable cyclic codes. *IEEE Trans. Inform. Theory*, 51(8):2849–2858, 2005. doi:10.1109/TIT.2005.851735. URL `http://people.cs.uchicago.edu/~laci/papers/b-shp-ste.pdf`. Journal version of 2003.179.

[209] László Babai and John Wilmes. Asymptotic Delsarte cliques in distance–regular graphs. Preliminary version. Available on author's website, October 2013.

[83] László Babai, Eugene M. Luks, and Ákos Seress. Permutation groups in NC. In *Proc. 19th STOC*, pages 409–420. ACM Press, 1987. doi:10.1145/28395.28439.

[148] László Babai. In and out of Hungary: Paul Erdős, his friends, and times. In D. Miklós, V. T. Sós, and T. Szőnyi, editors, *Combinatorics: Paul Erdős Is Eighty*, volume 2 of *Bolyai Society Mathematical Studies*, pages 7–95. J. Bolyai Mathematical Society, Budapest, 1996.

[167] László Babai, Thomas Hayes, and Peter Kimmel. The cost of the missing bit: Communication complexity with help. In *Proc. 30th STOC*, pages 673–682. ACM Press, 1998. doi:10.1145/276698.276883. Conference version of item 2001:177.

[168] László Babai. Magyarországon és a világban: Erdős Pál, barátai, és kora. *Természet Világa*, 129(3):31–36, 1998. Hungarian translation of parts of item 1996.148.

[177] László Babai, Thomas Hayes, and Peter Kimmel. The cost of the missing bit: Communication complexity with help. *Combinatorica*, 21(4):455–488, 2001. doi:10.1007/s004930100009. URL `http://people.cs.uchicago.edu/~laci/papers/missingbit1.pdf`. Expanded version of item 1998.167.

[184] László Babai and Thomas Hayes. Near-independence of permutations and an almost sure polynomial bound on the diameter of the symmetric group. In *Proc. 16th Ann. ACM-SIAM Symp. on Discrete Algorithms (SODA'05)*, pages 1057–1066. ACM–SIAM, SIAM, 2005. URL `http://people.cs.uchicago.edu/~laci/papers/bhayes-diam-soda.pdf`.

[142] László Babai, Peter Kimmel, and Satyanarayana V. Lokam. Simultaneous messages vs. communication. In E. Mayr and C. Puech, editors, *Proc. 12th Symp. Theoretical Aspects of Comp. Sci. (STACS'95)*, volume 900 of *Lect. Notes in Comp. Sci.*, pages 361–372, Munich, 1995. Springer. doi:10.1007/3-540-59042-0_88.

[147] László Babai, Anna Gál, János Kollár, Lajos Rónyai, Tibor Szabó, and Avi Wigderson. Extremal bipartite graphs and superpolynomial lower bounds for monotone span programs. In *Proc. 28th STOC*, pages 603–611. ACM Press, 1996. doi:10.1145/237814.238010.

[162] László Babai (organizer), Carl Pomerance, and Péter Vértesi. The mathematics of Paul Erdős. *Notices Amer. Math. Soc.*, 45(1):19–31, January 1998. URL `http://www.ams.org/notices/199801/vertesi.pdf`.

[163] László Babai. Finite and transfinite combinatorics. *Notices Amer. Math. Soc.*, 45(1): 23–28, January 1998. URL `http://www.ams.org/notices/199801/vertesi.pdf`. Part of item 1998.162.

[164] László Babai and Joel H. Spencer. Paul Erdős (1913–1996). *Notices Amer. Math. Soc.*, 45(1):64–73, January 1998. URL `http://www.ams.org/notices/199801/comm-erdos.pdf`.

[170] László Babai, Anna Gál, and Avi Wigderson. Superpolynomial lower bounds for monotone span programs. *Combinatorica*, 19(3):301–319, 1999. doi:10.1007/s004930050058. URL `http://people.cs.uchicago.edu/~laci/papers/span1.pdf`. Expanded version of part of item 2001.147.

[183] László Babai, Anna Gál, Peter Kimmel, and Satyanarayana V. Lokam. Communication complexity of simultaneous messages. *SIAM J. Comput.*, 33(1):137–166, 2004. doi:10.1137/S0097539700375944. URL `http://people.cs.uchicago.edu/~laci/papers/bgkl-SM.pdf`. Greatly expanded version of 1995.142.

[36] László Babai. Long cycles in vertex transitive graphs. *J. Graph Theory*, 3(3):301–304, 1979. doi:10.1002/jgt.3190030314.

[155] László Babai. Paul Erdős (1913–1996): His influence on the theory of computing. In *Proc. 29th STOC*, pages 383–401. ACM Press, 1997. doi:10.1145/258533.258624.

[141] László Babai. Transparent proofs and limits to approximation. In *Proc. First European Congress of Mathematics (1992)*, volume I, pages 31–91. Birkhäuser Basel, 1994. doi:10.1007/978-3-0348-9110-3_2.

[186] László Babai. On the diameter of Eulerian orientations of graphs. In *Proc. 17th Ann. ACM-SIAM Symp. on Discrete Algorithms (SODA'06)*, pages 822–831. ACM–SIAM, ACM Press, 2006. doi:10.1145/1109557.1109648. URL `http://people.cs.uchicago.edu/~laci/papers/eulerian-soda06.pdf`.

[195] László Babai and Barry Guiduli. Spectral extrema for graphs: the Zarankiewicz problem. *Electronic J. of Combinatorics*, 16(1):R123 (8pp), September 2009. URL `http://www.combinatorics.org/ojs/index.php/eljc/article/view/v16i1r123`.

[69] László Babai. *Permutation Groups, Coherent Configurations and Graph Isomorphism.* 1984. D.Sc. Thesis, Hungarian Academy of Sciences. In Hungarian.

[112] László Babai, Gene Cooperman, Larry Finkelstein, and Ákos Seress. Nearly linear time algorithms for permutation groups with a small base. In *Proc. 2nd Internat. Symp. on Symbolic and Algebraic Computation (ISAAC'91)*, pages 200–209, Bonn, 1991. ACM Press. doi:10.1145/120694.120724.

[121] László Babai and Tamás Lengyel. A convergence criterion for recurrent sequences with application to the partition lattice. *Analysis*, 12:109–119, 1992. URL `http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.30.4586`.

[84] László Babai and Ákos Seress. On the degree of transitivity of permutation groups: A short proof. *J. Combin. Theory Ser. A*, 45(2):310–315, 1987. doi:10.1016/0097-3165(87)90023-9.

[87] László Babai. Random oracles separate PSPACE from the polynomial-time hierarchy. *Inform. Process. Lett.*, 26(1):51–53, 1987. doi:10.1016/0022-0000(87)90010-9.

[88] László Babai and Ákos Seress. On the diameter of Cayley graphs of the symmetric group. *J. Combin. Theory Ser. A*, 49(1):175–179, 1988. doi:10.1016/0097-3165(88)90033-7.

[68] László Babai, William M. Kantor, and Eugene M. Luks. Computational complexity and the classification of finite simple groups. In *Proc. 24th FOCS*, pages 162–171. IEEE Comp. Soc. Press, 1983. doi:10.1109/SFCS.1983.10.

[41] László Babai and Péter Frankl. On set-intersections. *J. Combin. Theory Ser. A*, 28(1): 103–105, 1980. doi:10.1016/0097-3165(80)90063-1.

[145] László Babai. Automorphism groups, isomorphism, reconstruction. In R. L. Graham, M. Grötschel, and L. Lovász, editors, *Handbook of Combinatorics*, chapter 27, pages 1447–1540. North-Holland – Elsevier, 1995.

[125] László Babai and Ákos Seress. On the diameter of permutation groups. *Europ. J. Comb.*, 13(4):231–243, 1992. doi:10.1016/S0195-6698(05)80029-0.

[202] László Babai, Paolo Codenotti, and Youming Qiao. Polynomial-time isomorphism test for groups with no abelian normal subgroups (extended abstract). In *Proc. 39th Internat. Colloq. on Automata, Languages and Programming (ICALP'12)*, pages 51–62. Springer, 2012. doi:10.1007/978-3-642-31594-7_5.

[9] László Babai. Automorphism groups of graphs and edge-contraction. *Discrete Math.*, 8 (1):13–20, 1974. doi:10.1016/0012-365X(74)90104-6.

[27] László Babai. Infinite digraphs with given regular automorphism groups. *J. Combin. Theory Ser. B*, 25(1):26–46, 1978. doi:10.1016/S0095-8956(78)80008-2.

[34] László Babai and Luděk Kučera. Canonical labelling of graphs in linear average time. In *Proc. 20th FOCS*, pages 39–46. IEEE, IEEE Comp. Soc. Press, 1979. doi:10.1109/SFCS.1979.8.

[43] László Babai, Pál Erdős, and Stanley M. Selkow. Random graph isomorphism. *SIAM J. Comput.*, 9(3):628–635, 1980. doi:10.1137/0209047.

[127] László Babai and Gábor L. Hetyei. On the diameter of random Cayley graphs of the symmetric group. *Combin. Probab. Comput.*, 1(3):201–208, 1992. doi:10.1017/S0963548300000237.

[156] László Babai and Peter Kimmel. Randomized simultaneous messages: Solution of a problem of Yao in communication complexity. In *Proc. 12th IEEE Conf. on Computational Complexity (CCC'97)*, pages 239–246. IEEE Comp. Soc. Press, 1997. doi:10.1109/CCC.1997.612319.

[196] László Babai and Pedro Felzenszwalb. Computing rank-convolutions with a mask. *ACM Trans. Algorithms*, 6(1):20:1–20:13, 2009. doi:10.1145/1644015.1644035. URL `http://people.cs.uchicago.edu/~laci/papers/conv.pdf`.

[76] Miklós Ajtai, László Babai, Péter Hajnal, János Komlós, Pavel Pudlák, Vojtěch Rödl, Endre Szemerédi, and György Turán. Two lower bounds for branching programs. In *Proc. 18th STOC*, pages 30–38. ACM Press, 1986. doi:10.1145/12130.12134.

[80] László Babai. On the length of subgroup chains in the symmetric group. *Comm. Algebra*, 14(9):1729–1736, 1986. doi:10.1080/00927878608823393.

[86] László Babai, Péter Hajnal, Endre Szemerédi, and György Turán. A lower bound for read-once-only branching programs. *J. Comput. System Sci.*, 35(2):153–162, 1987. doi:10.1016/0022-0000(87)90010-9.

[98] László Babai. E-mail and the unexpected power of interaction. In *Proc. 5th IEEE Conf. on Structure in Complexity Theory (SCT'90)*, pages 30–44. IEEE Comp. Soc. Press, 1990. doi:10.1109/SCT.1990.113952. For Polish translation see item 1995.151.

[103] László Babai, Pavel Pudlák, Vojtěch Rödl, and Endre Szemerédi. Lower bounds to the complexity of symmetric Boolean functions. *Theoret. Comput. Sci.*, 74(3):313–324, 1990. doi:10.1016/0304-3975(90)90080-2.

[151] László Babai. Poczta komputerowa i niezwykła moc interakcji. *Wiadomości Matematyczne*, XXXI:55–80, 1995. Polish translation of item 1990.98. Appeared Sep. 1996.

[128] László Babai and Vera T. Sós. Tibor Gallai, 1912–1992. *Combinatorica*, 12(4):371–372, 1992. doi:10.1007/BF01305228.

[189] László Babai and Igor Gorodezky. Sandpile transience on the grid is polynomially bounded. In *Proc. 18th Ann. ACM-SIAM Symp. on Discrete Algorithms (SODA'07)*, pages 627–636. ACM–SIAM, SIAM, 2007. URL `http://people.cs.uchicago.edu/~laci/papers/bg-sandpile-soda07.pdf`.

[58] László Babai. Prímszámok és titkosírás (Prime numbers and cryptography). *Természet Világa*, 112(6):250–253, 1981. In Hungarian.

[137] Robert Beals and László Babai. Las Vegas algorithms for matrix groups. In *Proc. 34th FOCS*, pages 427–436, Palo Alto CA, 1993. IEEE Comp. Soc. Press. doi:10.1109/SFCS.1993.366844.

[42] László Babai and Mark E. Watkins. Connectivity of infinite graphs having a transitive torsion group action. *Archiv der Math.*, 34(1):90–96, 1980. doi:10.1007/BF01224935.

[60] László Babai and Chris D. Godsil. On the automorphism groups of almost all Cayley graphs. *Europ. J. Comb.*, 3(1):6–15, 1982. doi:10.1016/S0195-6698(82)80003-6.

[182] László Babai and Daniel Štefankovič. Simultaneous Diophantine approximation with excluded primes. In *Proc. 15th Ann. ACM-SIAM Symp. on Discrete Algorithms (SODA'04)*, pages 1123–1129. ACM–SIAM, SIAM, 2004. URL `http://people.cs.uchicago.edu/~laci/papers/excl-primes-soda04.pdf`.

[132] László Babai, Robert Beals, and Daniel Rockmore. Deciding finiteness of matrix groups in deterministic polynomial time. In *Proc. 4th Internat. Symp. on Symbolic and Algebraic Computation (ISAAC'93)*, pages 117–126. ACM Press, 1993. doi:10.1145/164081.164104. See item 1992.117.

[158] László Babai, Albert J. Goodman, and László Pyber. Groups without faithful transitive permutation representations of small degree. *J. Algebra*, 195(1):1–29, 1997. doi:10.1006/jabr.1997.7042.

[97] László Babai, William M. Kantor, and Alex Lubotsky. Small diameter Cayley graphs for finite simple groups. *Europ. J. Comb.*, 10(6):507–522, 1989. doi:10.1016/S0195-6698(89)80067-8.

[201] László Babai and Youming Qiao. Polynomial-time isomorphism test for groups with abelian Sylow towers. In *Proc. 29th Symp. Theoretical Aspects of Comp. Sci. (STACS'12)*, pages 453–464. Schloss Dagstuhl Online Publ., 2012. doi:10.4230/LIPIcs.STACS.2012.453.

[199] László Babai, Paolo Codenotti, Joshua Grochow, and Youming Qiao. Code equivalence and group isomorphism. In *Proc. 22nd Ann. ACM-SIAM Symp. on Discrete Algorithms (SODA'11)*, pages 1395–1408. ACM–SIAM, SIAM, 2011. URL `http://people.cs.uchicago.edu/~laci/papers/soda11.pdf`. NSF Grant CCF-0830370.

[131] László Babai and Albert J. Goodman. Subdirectly reducible groups and edge-minimal graphs with given automorphism group. *J. London Math. Soc.*, 47(3):417–432, 1993. doi:10.1112/jlms/s2-47.3.417.

[152] László Babai. The growth rate of vertex-transitive planar graphs. In *Proc. 8th Ann. ACM-SIAM Symp. on Discrete Algorithms (SODA'97)*, pages 564–573, New Orleans LA, 1997. ACM–SIAM, SIAM.

[45] László Babai and Aleš Pultr. Endomorphism monoids and topological subgraphs of graphs. *J. Combin. Theory Ser. B*, 28(3):278–283, 1980. doi:10.1016/0095-8956(80)90073-8.

[104] László Babai, Miklós Simonovits, and Joel H. Spencer. Extremal subgraphs of random graphs. *J. Graph Theory*, 14(5):599–622, 1990. doi:10.1002/jgt.3190140511.

[106] László Babai, Gene Cooperman, Larry Finkelstein, Eugene M. Luks, and Ákos Seress. Fast Monte-Carlo algorithms for permutation groups. In *Proc. 23rd STOC*, pages 90–100. ACM Press, 1991. doi:10.1145/103418.103435. Conference version of item 1995:144.

[144] László Babai, Gene Cooperman, Larry Finkelstein, Eugene M. Luks, and Ákos Seress. Fast Monte Carlo algorithms for permutation groups. *J. Comput. System Sci.*, 50(2):296–308, 1995. doi:10.1006/jcss.1995.1024. Special issue; full version of item 1991.106.

[153] László Babai. Randomization in group algorithms: Conceptual questions. In L. Finkelstein and W. M. Kantor, editors, *"Groups and Computation II"*, volume 28 of *DIMACS Ser. in Discr. Math. and Theor. Comp. Sci.*, pages 1–16. Amer. Math. Soc., 1997. Workshop on groups and computation, June 7-10, 1995.

[190] Miklós Abért and László Babai. Finite groups of uniform logarithmic diameter. *Israel J. Math*, 158(1):193–203, 2007. doi:10.1007/s11856-007-0009-7. URL `http://people.cs.uchicago.edu/~laci/papers/ab-diam.pdf`.

[165] László Babai. Paul Erdős just left town. *Notices Amer. Math. Soc.*, 45(1):66–73, January 1998. URL `http://www.ams.org/notices/199801/comm-erdos.pdf`. Part of item 1998.164.

[174] László Babai and Aner Shalev. Recognizing simplicity of black-box groups and the frequency of p-singular elements in affine groups. In W. M. Kantor and Ákos Seress, editors, *Groups and Computation III. Proc. 1999 Workshop at the Ohio State University*, pages 39–62, Berlin-New York, 2001. Ohio State University Mathematical Research Institute Publications, deGruyter. URL `http://people.cs.uchicago.edu/~laci/papers/bsh-unisingular.pdf`.

[17] László Babai. Isomorphism problem for a class of point-symmetric structures. *Acta Math. Acad. Sci. Hung.*, 29(3-4):329–336, 1977. doi:10.1007/BF01895854.

[207] László Babai. Entropy versus pairwise independence. Preliminary version. Available on author's website, August 2013.

[37] László Babai. Spectra of Cayley graphs. *J. Combin. Theory Ser. B*, 27(2):180–189, 1979. doi:10.1016/0095-8956(79)90079-0.

[44] László Babai. Almost all Steiner triple systems are asymmetric. *Annals of Discr. Math.*, 7:37–39, 1980. doi:10.1016/S0167-5060(08)70169-9. Part of "Topics on Steiner Systems" (C.C. Lindner and A. Rosa, eds.).

[63] László Babai and Pál Erdős. Representation of group elements as short products. *Annals of Discr. Math.*, 12:27–30, 1982. doi:10.1016/S0304-0208(08)73487-X. In "Theory and Practice of Combinatorics" (A. Rosa, G. Sabidussi, J. Turgeon eds.).

[146] László Babai, Robert Beals, Jin-Yi Cai, Gábor Ivanyos, and Eugene M. Luks. Multiplicative equations over commuting matrices. In *Proc. 7th Ann. ACM-SIAM Symp. on Discrete Algorithms (SODA'96)*, pages 498–507. SIAM, 1996.

[143] László Babai, Hunter Snevily, and Richard M. Wilson. A new proof of several inequalities on codes and sets. *J. Combin. Theory Ser. A*, 71(1):146–153, 1995. doi:10.1016/0097-3165(95)90021-7.

[172] László Babai and Igor Pak. Strong bias of group generators: An obstacle to the "product replacement algorithm". In *Proc. 11th Ann. ACM-SIAM Symp. on Discrete Algorithms (SODA'00)*, pages 627–635, San Francisco CA, 2000. ACM–SIAM, SIAM. Conference version of 2004:181.

[181] László Babai and Igor Pak. Strong bias of group generators: An obstacle to the "product replacement algorithm". *J. Algorithms*, 50(2):215–231, 2004. doi:10.1016/S0196-6774(03)00091-9. URL `http://people.cs.uchicago.edu/~laci/papers/b-pak.pdf`. Journal version of item 2000.172.

[62] László Babai, Fan R. K. Chung, Pál Erdős, Ronald L. Graham, and Joel H. Spencer. On graphs which contain all sparse graphs. *Annals of Discr. Math.*, 12:21–26, 1982. doi:10.1016/S0304-0208(08)73486-8. In "Theory and Practice of Combinatorics" (A. Rosa, G. Sabidussi, J. Turgeon eds.).

[73] László Babai. An anti-Ramsey theorem. *Graphs and Combinatorics*, 1(1):23–28, 1985. doi:10.1007/BF02582925.

[91] László Babai, Eugene M. Luks, and Ákos Seress. Fast management of permutation groups. In *Proc. 29th FOCS*, pages 272–282. IEEE Comp. Soc. Press, 1988. doi:10.1109/SFCS.1988.21943. Conference version of 1997:159.

[94] László Babai. The probability of generating the symmetric group. *J. Combin. Theory Ser. A*, 52(1):148–153, 1989. doi:10.1016/0097-3165(89)90068-X.

[119] László Babai, Robert Beals, and Pál Takácsi-Nagy. Symmetry and complexity. In *Proc. 24th STOC*, pages 438–449, Vancouver B.C., 1992. ACM Press. doi:10.1145/129712.129754.

[130] László Babai, Albert J. Goodman, and László Pyber. On faithful permutation representations of small degree. *Comm. Algebra*, 21(5):1587–1602, 1993. doi:10.1080/00927879308824639.

[135] László Babai, Eugene M. Luks, and Ákos Seress. Computing composition series in primitive groups. In L. Finkelstein and W. M. Kantor, editors, *Groups and Computation*, volume 11 of *DIMACS Ser. in Discr. Math. and Theor. Comp. Sci.*, pages 1–16. Amer. Math. Soc., 1993. Workshop on groups and computation, Oct 7-10, 1991.

[159] László Babai, Eugene M. Luks, and Ákos Seress. Fast management of permutation groups I. *SIAM J. Comput.*, 26(5):1310–1342, 1997. doi:10.1137/S0097539794229417. Full version of 1988.91.

[197] László Babai, Anandam Banerjee, Raghav Kulkarni, and Vipul Naik. Evasiveness and the distribution of prime numbers. In *Proc. 27th Ann. Symp. on Theoretical Aspects of Comp. Sci. (STACS 2010)*, pages 71–82. Schloss Dagstuhl Online Publ., 2010. doi:10.4230/LIPIcs.STACS.2010.2445. NSF Grant CCF-0830370.

[122] László Babai. Transparent proofs. *FOCUS (MAA Newsletter)*, 12(3):1–2, June 1992.

[123] László Babai. Combinatorial optimization is hard. *FOCUS (MAA Newsletter)*, 12(4): 3,6,18, September 1992.

[188] László Babai and Thomas Hayes. The probability of generating the symmetric group when one of the generators is random. *Publ. Math. Debrecen*, 69(3):271–280, 2006. URL `http://people.cs.uchicago.edu/~laci/papers/debrecen.pdf`.