

Unconditional lower bounds

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- [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.
- [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.
- [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.
- [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.
- [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.
- [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.

- [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.
- [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/bgk1-SM.pdf>. Greatly expanded version of 1995.142.
- [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.
- [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.
- [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.
- [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.
- [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.
- [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.

- [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.
- [198] László Babai, Kristoffer Arnsfelt Hansen, Vladimir V. Podolskii, and Xiaoming Sun. Weights of exact threshold functions. In *Proc. 35th Internat. Symp. on Math. Foundations of Computer Science (MFCS'10)*, pages 66–77. Springer, 2010. doi:10.1007/978-3-642-15155-2.8. URL <http://people.cs.uchicago.edu/~laci/papers/threshold.pdf>.
- [171] László Babai and Sophie Laplante. Stronger separations for random-self-reducibility, rounds, and advice. In *Proc. 14th IEEE Conf. on Computational Complexity (CCC'99)*, pages 98–104. IEEE Comp. Soc., IEEE Comp. Soc. Press, 1999. doi:10.1109/CCC.1999.766268.
- [208] László Babai and Denis Pankratov. There are no zero-hard problems in multiparty communication complexity. Preliminary version. Available on author's website, October 2013.
- [161] László Babai. Communication complexity. In I. Prívvara and P. Ružička, editors, *Proc. 22nd Internat. Symp. on Math. Foundations of Computer Science (MFCS'97)*, volume 1295 of *Lecture Notes in Computer Science*, pages 5–18. Springer, 1997. doi:10.1007/BFb0029945.
- [92] László Babai, Bettina Just, and Friedhelm Meier auf der Heide. On the limits of computations with the floor function. *Inform. and Comput.*, 78(2):99–107, 1988. doi:10.1016/0890-5401(88)90031-4.