

Themenauswahl (eigene Vorschläge sind willkommen)

- “An Algorithmic Analysis of the Honey-Bee Game”
- “Christmas Gift Exchange Games”
- “Combinatorial analysis of Tetris-like games”
- “Computational complexity of two-dimensional platform games”
- “Crossing the Bridge at Night”
- “Cryptographic and Physical Zero-Knowledge Proof Systems for Solutions of Sudoku Puzzles”
- “Die Another Day”
- “Drawing Borders Efficiently”
- “High Spies (or How to Win a Programming Contest)”
- “HIROIMONO Is NP-Complete”
- “Kaboozle is NP-complete, even in a Strip”
- “Knitting for fun: a recursive sweater”
- “Leveling-Up in Heroes of Might and Magic III”
- “Morpion Solitaire”
- “On Embedding a Graph in the Grid with the Maximum Number of Bends and Other Bad Features”
- “On The Efficient Capture Of Dangerous Criminals”
- “Phutball Endgames are Hard”
- “Puzzles, Art, and Magic with Algorithms”
- “Some Minesweeper Configurations”
- “Tetris is Hard”
- “The Ferry Cover Problem”
- “The Geometry of Carpentry and Joinery”
- “The Urinal Problem”
- “UNO is hard, even for a single player”
- “Using Coevolution to Understand and Validate Game Balance in Continuous Games”
- “When Zombies attack” (zombie infection)
- “Wooden Geometric Puzzles: Design and Hardness Proofs”
- Juggling with Pattern Matching
- Pokern per Post
- Turnier- und Sportligaplanung
- Majority Vote (Klassensprecherwahl)
- Der Pledge-Algorithmus (Wie man im Dunklen aus einem Labyrinth entkommt)
- Maximale Flüsse (Alle wollen zum Stadion)
- One Time Pad (Verschlüsselung)
- Kürzeste Wege
- Minimale aufspannende Bäume
- Mastermind
- Viterbi Kasino
- Solitär +
- Tarok
- Rasende Roboter
- Rubic Cube

Literatur

- [1] H. Alt, H. Bodlaender, M. V. Kreveld, G. Rote, and G. Tel. Wooden geometric puzzles: Design and hardness proofs. In *Proceedings of the 4th international conference on Fun with algorithms*, FUN'07, pages 16–29, Berlin, Heidelberg, 2007. Springer-Verlag.
- [2] D. Andersson. Hiroimono is np-complete. In *Proceedings of the 4th international conference on Fun with algorithms*, FUN'07, pages 30–39, Berlin, Heidelberg, 2007. Springer-Verlag.
- [3] T. Asano, E. D. Demaine, M. L. Demaine, and R. Uehara. Kaboozle is np-complete, even in a strip. In *Proceedings of the 5th international conference on Fun with algorithms*, FUN'10, pages 28–36, Berlin, Heidelberg, 2010. Springer-Verlag.
- [4] D. Baccherini and D. Merlini. Combinatorial analysis of tetris-like games. *Discrete Mathematics*, 308(18):4165–4176, 2008.
- [5] G. D. Battista, F. Frati, and M. Patrignani. On embedding a graph in the grid with the maximum number of bends and other bad features. In *Proceedings of the 4th international conference on Fun with algorithms*, FUN'07, pages 1–13, Berlin, Heidelberg, 2007. Springer-Verlag.
- [6] A. Bernasconi, C. Bodei, and L. Pagli. Knitting for fun: a recursive sweater. In *Proceedings of the 4th international conference on Fun with algorithms*, FUN'07, pages 53–65, Berlin, Heidelberg, 2007. Springer-Verlag.
- [7] J. Cardinal, S. Kremer, and S. Langerman. Juggling with pattern matching. *Theorory Comput. Syst.*, 39:425–437, June 2006.
- [8] E. D. Demaine and M. L. Demaine. Puzzles, art, and magic with algorithms. *Theor. Comp. Sys.*, 39:473–481, June 2006.
- [9] E. D. Demaine, M. L. Demaine, and D. Eppstein. Phutball endgames are hard. *CoRR*, cs.CC/0008025, 2000.
- [10] E. D. Demaine, M. L. Demaine, A. Langerman, and S. Langerman. Morpion solitaire. *Theor. Comp. Syst.*, 39:439–453, June 2006.
- [11] E. D. Demaine, M. L. Demaine, R. Uehara, T. Uno, and Y. Uno. Uno is hard, even for a single player. In *Proceedings of the 5th international conference on Fun with algorithms*, FUN'10, pages 133–144, Berlin, Heidelberg, 2010. Springer-Verlag.
- [12] E. D. Demaine, S. Hohenberger, and D. Liben-Nowell. Tetris is hard, even to approximate. In *Proceedings of the 9th annual international conference on Computing and combinatorics*, COCOON'03, pages 351–363, Berlin, Heidelberg, 2003. Springer-Verlag.
- [13] A. H. Deutz, R. van Vliet, and H. J. Hoogeboom. High spies (or how to win a programming contest). In *Proceedings of the 4th international conference on Fun with algorithms*, FUN'07, pages 93–107, Berlin, Heidelberg, 2007. Springer-Verlag.
- [14] D. I. Diochnos. Leveling-up in heroes of might and magic iii. In *Proceedings of the 5th international conference on Fun with algorithms*, FUN'10, pages 145–155, Berlin, Heidelberg, 2010. Springer-Verlag.
- [15] T. Erlebach. Mehrheitsbestimmung - wer wird klassensprecher? In *Taschenbuch der Algorithmen*, pages 245–254. 2008.
- [16] R. Fleischer. Die another day. *Theory Comput. Syst.*, 44:205–214, February 2009.
- [17] R. Fleischer and G. J. Woeginger. An algorithmic analysis of the honey-bee game. In *Proceedings of the 5th international conference on Fun with algorithms*, FUN'10, pages 178–189, Berlin, Heidelberg, 2010. Springer-Verlag.
- [18] M. Forišek. Computational complexity of two-dimensional platform games. In *Proceedings of the 5th international conference on Fun with algorithms*, FUN'10, pages 214–227, Berlin, Heidelberg, 2010. Springer-Verlag.
- [19] V. Gervasi and G. Prencipe. On the efficient capture of dangerous criminals. In *Proc. of the 3rd International Conference on Fun With Algorithms*, Island of Elba, Italy, May 2004.

- [20] A. Ghosh and M. Mahdian. Christmas gift exchange games. In *Proceedings of the 5th international conference on Fun with algorithms*, FUN'10, pages 228–236, Berlin, Heidelberg, 2010. Springer-Verlag.
- [21] R. Görke, S. Mecke, and D. Wagner. Maximale flüsse, 2006.
- [22] R. Gradwohl, M. Naor, B. Pinkas, and G. N. Rothblum. Cryptographic and physical zero-knowledge proof systems for solutions of sudoku puzzles. In *Proceedings of the 4th international conference on Fun with algorithms*, FUN'07, pages 166–182, Berlin, Heidelberg, 2007. Springer-Verlag.
- [23] K. Iwama, E. Miyano, and H. Ono. Drawing borders efficiently. In *Proceedings of the 4th international conference on Fun with algorithms*, FUN'07, pages 213–226, Berlin, Heidelberg, 2007. Springer-Verlag.
- [24] R. Kaye. Some minesweeper configurations, May 2007.
- [25] R. Klein and T. Kamhans. Der pledge-algorithmus, 2006.
- [26] S. Knust. Turnier- und sportligaplanung, 2006.
- [27] E. Kranakis and D. Krizanc. The urinal problem. In *Proceedings of the 5th international conference on Fun with algorithms*, FUN'10, pages 284–295, Berlin, Heidelberg, 2010. Springer-Verlag.
- [28] M. Lampis and V. Mitsou. The ferry cover problem. In *Proceedings of the 4th international conference on Fun with algorithms*, FUN'07, pages 227–239, Berlin, Heidelberg, 2007. Springer-Verlag.
- [29] K. Langkau and M. Skutella. Minimale aufspannende bäume, 2006.
- [30] R. Leigh, J. Schonfeld, and S. J. Louis. Using coevolution to understand and validate game balance in continuous games. In *Proceedings of the 10th annual conference on Genetic and evolutionary computation*, GECCO '08, pages 1563–1570, New York, NY, USA, 2008. ACM.
- [31] P. Morin and J. Morrison. The geometry of carpentry and joinery. *Discrete Appl. Math.*, 144:374–380, December 2004.
- [32] P. Munz, I. Hudea, J. Imad, and R. J. Smith. When zombies attack!: Mathematical modelling of an outbreak of zombie infection. In *In J.M. Tchuente and C. Chiyaka, editors, Infectious Disease Modelling Research Progress*, pages 133–150. Nova Science, 2009.
- [33] G. Rote. Crossing the bridge at night. *Bulletin of the EATCS*, 78:241–, 2002.
- [34] F. Ruskey and M. Weston. More fun with symmetric venn diagrams. *Theory Comput. Syst.*, 39(3):413–423, 2006.
- [35] P. Sanders, J. Singler, and S. Kupferer. Kürzeste wege, 2006.
- [36] D. Sieling. Poker per e-mail, 2006.
- [37] T. Tantau. Der one-time-pad-algorithmus, 2006.