

## References

- [1] Nikori. *Nikori no penpa*. 2015. November 2014.
- [2] Chuzo Iwamoto and Tatsuaki Ibusuki. Kurotto and Juosan are NP-complete. In *The 21st Japan Conference on Discrete and Computational Geometry, Graphs, and Games (JCDCG3 2018)*, pages 46–48, 2018.
- [3] Chuzo Iwamoto and Tatsuaki Ibusuki. Polynomial-time reductions from 3SAT to Kurotto and Juosan puzzles. *IEICE Transactions on Information and Systems*, 103(3):500–505, 2020.
- [4] Daiki Miyahara, Léo Robert, Pascal Lafourcade, So Takeshige, Takaaki Mizuki, Kazumasa Shinagawa, Atsuki Nagao, and Hideaki Sone. Card-based ZKP protocols for Takuzu and Juosan. In *10th International Conference on Fun with Algorithms (FUN 2021)*. Schloss Dagstuhl-Leibniz-Zentrum für Informatik, 2020.
- [5] Nikoli. Juosan - nikoli. <https://www.nikoli.co.jp/en/puzzles/juosan/>, November 2022. Accessed: 2022-11-30.
- [6] Marcel Danesi. *An anthropology of puzzles: The role of puzzles in the origins and evolution of mind and culture*. Taylor & Francis, 2018.
- [7] Robert A Hearn and Erik D Demaine. *Games, puzzles, and computation*. CRC Press, 2009.
- [8] Erik D Demaine. Playing games with algorithms: Algorithmic combinatorial game theory. In *International Symposium on Mathematical Foundations of Computer Science*, pages 18–33. Springer, 2001.
- [9] Graham Kendall, Andrew Parkes, and Kristian Spoerer. A survey of NP-complete puzzles. *ICGA Journal*, 31(1):13–34, 2008.
- [10] Ryuhei Uehara. Computational complexity of puzzles and related topics. *Interdisciplinary Information Sciences*, pages 1–22, 2023.
- [11] Nobuhisa Ueda and Tadaaki Nagao. NP-completeness results for Nonogram via parsimonious reductions. Technical report, Department of Computer Science, Tokyo Institute of Technology, 1996.
- [12] Takayuki Yato and Takahiro Seta. Complexity and completeness of finding another solution and its application to puzzles. *IEICE transactions on fundamentals of electronics, communications and computer sciences*, 86(5):1052–1060, 2003.
- [13] Markus Holzer, Andreas Klein, and Martin Kutrib. On the NP-completeness of the Nurikabe pencil puzzle and variants thereof. In *Proceedings of the 3rd International Conference on FUN with Algorithms*, pages 77–89. Citeseer, 2004.
- [14] Markus Holzer and Oliver Ruepp. The troubles of interior design—a complexity analysis of the game Heyawake. In *International Conference on Fun with Algorithms*, pages 198–212. Springer, 2007.
- [15] Ayaka Ishibashi, Yuichi Sato, and Shigeki Iwata. NP-completeness of two pencil puzzles: Yajilin and Country Road. *Utilitas Mathematica*, 88:237–246, 2012.
- [16] Jonas Kölker. Kurodoko is NP-complete. *Information and Media Technologies*, 7(3):1000–1012, 2012.
- [17] Addison Allen and Aaron Williams. Sto-Stone is NP-Complete. In *CCCG*, pages 28–34, 2018.
- [18] Chuzo Iwamoto and Masato Haruishi. Computational complexity of Usowan puzzles. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, 101(9):1537–1540, 2018.
- [19] Aviv Adler, Jeffrey Bosboom, Erik D. Demaine, Martin L. Demaine, Quanquan C. Liu, and Jayson Lynch. Tatamibari is NP-Complete. In Martin Farach-Colton, Giuseppe Prencipe, and Ryuhei Uehara, editors, *10th International Conference on Fun with Algorithms (FUN 2021)*, volume 157 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 1:1–1:24, Dagstuhl, Germany, 2020. Schloss Dagstuhl–Leibniz-Zentrum für Informatik.
- [20] Erik D. Demaine, Jayson Lynch, Mikhail Rudoy, and Yushi Uno. Yin-Yang Puzzles are NP-complete. In *33rd Canadian Conference on Computational Geometry (CCCG) 2021*, 2021.

- [21] Chuzo Iwamoto and Tatsuya Ide. Moon-or-Sun, Nagareru, and Nurimeizu are NP-complete. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, pages 1187–1194, 2022.
- [22] Chuzo Iwamoto and Tatsuya Ide. Five Cells and Tilepaint are NP-Complete. *IEICE Transcations on Information and Systems*, 105(3):508–516, 2022.
- [23] Made Indrayana Putra, Muhammad Arzaki, and Gia Septiana Wulandari. Solving Yin-Yang Puzzles Using Exhaustive Search and Prune-and-Search Algorithms. *(IJCSAM) International Journal of Computing Science and Applied Mathematics*, 8(2):52–65, 2022.
- [24] Enrico Christopher Reinhard, Muhammad Arzaki, and Gia Septiana Wulandari. Solving Tatamibari Puzzle Using Exhaustive Search Approach. *Indonesia Journal on Computing (Indo-JC)*, 7(3):53–80, Dec. 2022.
- [25] Mutsunori Banbara, Kenji Hashimoto, Takashi Horiyama, Shin-ichi Minato, Kakeru Nakamura, Masaaki Nishino, Masahiko Sakai, Ryuhei Uehara, Yushi Uno, and Norihito Yasuda. Solving rep-tile by computers: Performance of solvers and analyses of solutions. *arXiv preprint arXiv:2110.05184*, 2021.
- [26] Curtis Bright, Jürgen Gerhard, Ilias Kotsireas, and Vijay Ganesh. Effective problem solving using SAT solvers. In *Maple Conference*, pages 205–219. Springer, 2019.
- [27] Inês Lynce and Joël Ouaknine. Sudoku as a SAT Problem. In *AI&M*, 2006.
- [28] Gihwon Kwon and Himanshu Jain. Optimized CNF encoding for sudoku puzzles. In *Proc. 13th International Conference on Logic for Programming Artificial Intelligence and Reasoning (LPAR2006)*, pages 1–5, 2006.
- [29] Martin Henz and Hoang-Minh Truong. Sudokusat—a tool for analyzing difficult sudoku puzzles. *Tools and Applications with Artificial Intelligence*, pages 25–35, 2009.
- [30] Uwe Pfeiffer, Tomas Karnagel, and Guido Scheffler. A Sudoku-Solver for Large Puzzles using SAT. In *LPAR short papers (Yogyakarta)*, pages 52–57, 2010.
- [31] Carlos Ansótegui, Ramón Béjar, César Fernández, and Carles Mateu. Edge matching puzzles as hard SAT/CSP benchmarks. In *Principles and Practice of Constraint Programming: 14th International Conference, CP 2008, Sydney, Australia, September 14–18, 2008. Proceedings 14*, pages 560–565. Springer, 2008.
- [32] Jingchao Chen. Solving Rubik’s Cube Using SAT Solvers. *arXiv preprint arXiv:1105.1436*, 2011.
- [33] Putranto Utomo and Ruud Pellikaan. Binary puzzle as a SAT problem. In *Proceedings of the 2017 Symposium on Information Theory and Signal Processing, Benelux*, pages 223–229, 2017.
- [34] Aye Myint Myat, Khine Khine Htwe, and Nobuo Funabiki. Fill-a-pix puzzle as a SAT problem. In *2019 International Conference on Advanced Information Technologies (ICAIT)*, pages 244–249. IEEE, 2019.
- [35] Laura Kolijn. Generating and Solving Skyscrapers Puzzles Using a SAT Solver. Bachelor thesis, Radboud University, 2022.
- [36] Christian Bessiere, Clément Carbonnel, Emmanuel Hebrard, George Katsirelos, and Toby Walsh. Detecting and exploiting subproblem tractability. In *IJCAI: International Joint Conference on Artificial Intelligence*, pages 468–474, 2013.
- [37] Jan Dreier, Sebastian Ordyniak, and Stefan Szeider. CSP Beyond Tractable Constraint Languages. In *28th International Conference on Principles and Practice of Constraint Programming (CP 2022)*. Schloss Dagstuhl-Leibniz-Zentrum für Informatik, 2022.
- [38] Leslie G Valiant. The complexity of computing the permanent. *Theoretical computer science*, 8(2):189–201, 1979.
- [39] Antonis Antonopoulos, Eleni Bakali, Aggeliki Chalki, Aris Pagourtzis, Petros Pantavos, and Stathis Zachos. Completeness, approximability and exponential time results for counting problems with easy decision version. *Theoretical Computer Science*, 915:55–73, 2022.
- [40] David Lichtenstein. Planar Formulae and Their Uses. *SIAM Journal on Computing*, 11(2):329–343, 1982.

- [41] Thomas Koshy. *Discrete mathematics with applications*. Elsevier, 2004.
- [42] Mordechai Ben-Ari. *Mathematical Logic for Computer Science, 3rd Edition*. Springer Science & Business Media, 2012.
- [43] Michael Huth and Mark Ryan. *Logic in Computer Science: Modelling and Reasoning about Systems, 2nd Edition*. Cambridge university press, 2004.
- [44] Armin Biere, Marijn Heule, and Hans van Maaren. *Handbook of satisfiability*, volume 185. IOS press, 2009.
- [45] Richard Neapolitan and Kumarss Naimipour. *Foundations of algorithms*. Jones & Bartlett Publishers, 2010.
- [46] D. W. Encoding SAT EqualsK Constraint with Two Possible Values. Computer Science Stack Exchange. (version: 2023-05-09).
- [47] Carsten Sinz. Towards an optimal CNF encoding of boolean cardinality constraints. In *Principles and Practice of Constraint Programming-CP 2005: 11th International Conference, CP 2005, Sitges, Spain, October 1-5, 2005. Proceedings 11*, pages 827–831. Springer, 2005.
- [48] Alan M Frisch and Paul A Giannaros. SAT encodings of the at-most-k constraint: Some old, some new, some fast, some slow. 2010.
- [49] Paul Maximilian Bittner, Thomas Thüm, and Ina Schaefer. SAT Encodings of the At-Most-k Constraint: A Case Study on Configuring University Courses. In *Software Engineering and Formal Methods: 17th International Conference, SEFM 2019, Oslo, Norway, September 18–20, 2019, Proceedings 17*, pages 127–144. Springer, 2019.
- [50] Van-Hau Nguyen, Van-Quyet Nguyen, Kyungbaek Kim, and Pedro Barahona. Empirical Study on SAT-Encodings of the At-Most-One Constraint. In *The 9th International Conference on Smart Media and Applications*, pages 470–475, 2020.
- [51] Martin Hořeňovský. Modern sat solvers: fast, neat and underused (part 3 of n). <https://codingnest.com/modern-sat-solvers-fast-neat-and-underused-part-3-of-n/>, April 2019. Accessed: 2023-5-22.
- [52] Bengt Aspvall, Michael F Plass, and Robert Endre Tarjan. A linear-time algorithm for testing the truth of certain quantified boolean formulas. *Information processing letters*, 8(3):121–123, 1979.
- [53] Sara Brunetti and Alain Daurat. An algorithm reconstructing convex lattice sets. *Theoretical Computer Science*, 304(1):35–57, 2003.
- [54] Mark Feinberg. Fibonacci-tribonacci. *The Fibonacci Quarterly*, 1(1):71–74, 1963.
- [55] Tony Noe, Tito III Piezas, and Eric W. Weisstein. Tribonacci number. From MathWorld—A Wolfram Web Resource. Last visited on 17/3/2023.
- [56] Markus Scheuer. Number of binary strings with  $k$  ones or  $k$  zeros and no three consecutive ones. Mathematics Stack Exchange. Last visited on 3/4/2023.
- [57] Lutz Prechelt. An empirical comparison of seven programming languages. *Computer*, 33(10):23–29, 2000.
- [58] Otto Janko. Juosan. <https://www.janko.at/Raetsel/Juosan/index.htm>, October 2022. Accessed: 2022-10-11.