

Publication List of Curtis Bright

Bright, C., Cheung, K., Stevens, B., Kotsireas, I., Ganesh, V., A SAT-based Resolution of Lam's Problem, to appear in Proceedings of the 35th AAAI Conference on Artificial Intelligence, 2021.

Bright, C., Kotsireas, I., Heinle, A., and Ganesh, V., Complex Golay Pairs up to Length 28: A Search via Computer Algebra and Programmatic SAT, *Journal of Symbolic Computation*, vol. 102, pp. 153–172, 2021. <http://doi.org/10.1016/j.jsc.2019.10.013>

Bright, C. Kotsireas, I., Ganesh, V., New Infinite Families of Perfect Quaternion Sequences and Williamson Sequences, *IEEE Transactions on Information Theory*, vol. 66, issue 12, pp. 7739–7751, 2020. <http://doi.org/10.1109/TIT.2020.3016510>

Bright, C., Cheung, K., Stevens, B., Kotsireas, I., Ganesh, V., Unsatisfiability Proofs for Weight 16 Codewords in Lam's Problem, in Proceedings of the Twenty-Ninth International Joint Conference on Artificial Intelligence Main track, pp. 1460–1466, 2020. <https://doi.org/10.24963/ijcai.2020/203>

Bright, C., Cheung, K., Stevens, B., Kotsireas, I., Ganesh, V., Nonexistence Certificates for Ovals in a Projective Plane of Order Ten, in Proceedings of the 31st International Workshop on Combinatorial Algorithms, pp. 97–111, 2020. http://doi.org/10.1007/978-3-030-48966-3_8

Bright, C., Cheung, K., Stevens, B., Roy, D., Kotsireas, I., Ganesh, V., A Nonexistence Certificate for Projective Planes of Order Ten with Weight 15 Codewords, *Applicable Algebra in Engineering, Communication and Computing*, vol. 31, pp. 195–213, 2020. <http://doi.org/10.1007/s00200-020-00426-y>

Bright, C., Gerhard, J., Kotsireas, I., and Ganesh, V., Effective Problem Solving Using SAT Solvers, in *Maple in Mathematics Education and Research*, pp. 205–219, 2020. http://doi.org/10.1007/978-3-030-41258-6_15

Bright, C., Kotsireas, I., and Ganesh, V., Applying Computer Algebra Systems with SAT Solvers to the Williamson Conjecture, *Journal of Symbolic Computation*, vol. 100, pp. 187–209, 2020. <http://doi.org/10.1016/j.jsc.2019.07.024>

Bright, C., Djokovic, D. Z., Kotsireas, I., and Ganesh, V., The SAT+CAS Method for Combinatorial Search with Applications to Best Matrices, in *Annals of Mathematics and Artificial Intelligence*, vol. 87, issue 4, pp. 321–342, 2019. <http://doi.org/10.1007/s10472-019-09681-3>

Bright, C., Kotsireas, I., and Ganesh, V., SAT Solvers and Computer Algebra Systems: A Powerful Combination for Mathematics, in Proceedings of the 29th Annual International Conference on Computer Science and Software Engineering, pp. 323–328, 2019. <http://dl.acm.org/citation.cfm?id=3370309>

Bright, C., Djokovic, D. Z., Kotsireas, I., and Ganesh, V., A SAT+CAS Approach to Finding Good Matrices: New Examples and Counterexamples, in Proceedings of the Thirty-Third AAAI Conference on Artificial Intelligence, pp. 1435–1442, 2019. <http://doi.org/10.1609/aaai.v33i01.33011435>

Bright, C., Kotsireas, I. S., Heinle, A., and Ganesh, V., Enumeration of Complex Golay Pairs via Programmatic SAT, in Proceedings of the 43rd International Symposium on Symbolic and Algebraic Computation, ISSAC 2018, New York, NY, USA, July 16–19, 2018, pp. 111–118, 2018. <http://doi.org/10.1145/3208976.3209006>

Bright, C., Kotsireas, I. S., and Ganesh, V., A SAT+CAS Method for Enumerating Williamson Matrices of Even Order, in Proceedings of the Thirty-Second AAAI Conference on Artificial Intelligence, (AAAI-18), the 30th innovative Applications of Artificial Intelligence (IAAI-18), and the 8th AAAI Symposium on Educational Advances in Artificial Intelligence (EAAI-18), New Orleans, Louisiana, USA, February 2–7, 2018, pp. 6573–6580, 2018. <http://aaai.org/ocs/index.php/AAAI/AAAI18/paper/view/16625>

Bright, C., Kotsireas, I., and Ganesh, V., The SAT+CAS Paradigm and the Williamson Conjecture (Extended Abstract), Communications in Computer Algebra, vol. 52, issue 3, pp. 82–84, 2018. <http://doi.org/10.1145/3313880.3313889>

E. Zulkoski, Bright, C., Heinle, A., Kotsireas, I., Czarnecki, K., and Ganesh, V., Combining SAT Solvers with Computer Algebra Systems to Verify Combinatorial Conjectures, Journal of Automated Reasoning, vol. 58, issue 3, pp. 313–339, 2017. <http://doi.org/10.1007/s10817-016-9396-y>

Bright, C., Computational Methods for Combinatorial and Number Theoretic Problems, 2017. <http://hdl.handle.net/10012/11761>

Bright, C., Ganesh, V., Heinle, A., Kotsireas, I., Nejati, S., and Czarnecki, K., Math-Check2: A SAT+CAS Verifier for Combinatorial Conjectures, in Proceedings of the First Workshop on Satisfiability Checking and the 18th Symbolic Computation and Computer Algebra in Scientific Computing, Lecture Notes in Computer Science, vol. 9890, pp. 117–133, 2016. http://doi.org/10.1007/978-3-319-45641-6_9

Bright, C., Devillers, R., and Shallit, J., Minimal Elements for the Prime Numbers, Journal of Experimental Mathematics, vol. 25, issue 3, pp. 321–331, 2016. <http://doi.org/10.1093/exmat/exw001>

[//doi.org/10.1080/10586458.2015.1064048](http://doi.org/10.1080/10586458.2015.1064048)

Bright, C., and Storjohann, A., Vector Rational Number Reconstruction, in Proceedings of the 36th International Symposium on Symbolic and Algebraic Computation, pp. 51–58, 2011. <http://doi.org/10.1145/1993886.1993900>