

Publications représentatives

Claire Mathieu

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Claire Mathieu est auteur d'environ 40 articles dans des revues dont *SIAM J. on Computing* (7) et *JACM* (1), et d'environ 80 articles dans des conférence internationales dont *ACM STOC* (13), *IEEE FOCS* (7), et *ACM-SIAM SODA* (21).

Elle a en particulier conçu des schémas d'approximation [1, 2, 3, 4, 5, 6, 7], c'est-à-dire des algorithmes qui, en temps polynomial, trouvent une solution quasi-optimale, et cela, même s'il s'agit d'un problème d'optimisation NP-difficile. Elle a aussi de nombreuses publications dans l'analyse théorique de problèmes liés à des domaines connexes de l'informatique, voire à d'autres sciences : Modèle de calcul biologique [8], Physique statistique [9], Recherche opérationnelle [10], Bornes inférieures [11], Probabilités [12], Économie [13], et Sociologie [14],

Références

- [1] Claire Kenyon, Nicolas Schabanel, and Neal E. Young. Polynomial-time approximation scheme for data broadcast. In *Proceedings of the Thirty-Second Annual ACM Symposium on Theory of Computing, May 21-23, 2000, Portland, OR, USA*, pages 659–666, 2000.
- [2] Claire Kenyon and Eric Rémila. A near-optimal solution to a two-dimensional cutting stock problem. *Math. Oper. Res.*, 25(4) :645–656, 2000.
- [3] Wenceslas Fernandez de la Vega and Claire Kenyon. A randomized approximation scheme for metric MAX-CUT. *J. Comput. Syst. Sci.*, 63(4) :531–541, 2001.
- [4] Claire Kenyon-Mathieu and Warren Schudy. How to rank with few errors. In *Proceedings of the 39th Annual ACM Symposium on Theory of Computing, San Diego, California, USA, June 11-13, 2007*, pages 95–103, 2007.
- [5] Mordecai J. Golin, Claire Mathieu, and Neal E. Young. Huffman coding with letter costs : A linear-time approximation scheme. *SIAM J. Comput.*, 41(3) :684–713, 2012.
- [6] Glencora Borradaile, Philip N. Klein, and Claire Mathieu. A polynomial-time approximation scheme for euclidean steiner forest. *ACM Trans. Algorithms*, 11(3) :19 :1–19 :20, 2015.
- [7] Vincent Cohen-Addad, Philip N. Klein, and Claire Mathieu. Local search yields approximation schemes for k-means and k-median in euclidean and minor-free metrics. In *Proceedings of the Symposium on Foundations of Computer Science (FOCS)*, 2016.
- [8] Richard M. Karp, Claire Kenyon, and Orli Waarts. Error-resilient DNA computation. *Random Struct. Algorithms*, 15(3-4) :450–466, 1999.
- [9] W Evans, C Kenyon, Y Peres, and LJ Schulman. Broadcasting on trees and the ising model. *Annals of Applied Probability*, pages 410–433, 2000.
- [10] János Csirik, David S. Johnson, Claire Kenyon, James B. Orlin, Peter W. Shor, and Richard R. Weber. On the sum-of-squares algorithm for bin packing. *J. ACM*, 53(1) :1–65, 2006.

- [11] Wenceslas Fernandez de la Vega and Claire Kenyon-Mathieu. Linear programming relaxations of maxcut. In *Proceedings of the Eighteenth Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2007, New Orleans, Louisiana, USA, January 7-9, 2007*, pages 53–61, 2007.
- [12] Claire Mathieu and David B. Wilson. The min mean-weight cycle in a random network. *Combinatorics, Probability & Computing*, 22(5) :763–782, 2013.
- [13] Matthew Cary, Aparna Das, Benjamin Edelman, Ioannis Giotis, Kurtis Heimerl, Anna R. Karlin, Scott Duke Kominers, Claire Mathieu, and Michael Schwarz. Convergence of position auctions under myopic best-response dynamics. *ACM Trans. Economics and Comput.*, 2(3) :9 :1–9 :20, 2014.
- [14] Chen Avin, Barbara Keller, Zvi Lotker, Claire Mathieu, David Peleg, and Yvonne Anne Pignolet. Homophily and the glass ceiling effect in social networks. In *Proceedings of the 2015 Conference on Innovations in Theoretical Computer Science, ITCS 2015, Rehovot, Israel, January 11-13, 2015*, pages 41–50, 2015.