

Chao Xu

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Research Interest

Combinatorial Optimization · Computational Geometry · Algorithms

Education

- 2018 (Expected May 2018) PHD in Computer Science, University of Illinois at Urbana-Champaign
Advisors: Karthik Chandrasekaran and Chandra Chekuri.
- 2013 BS in Mathematics and Applied Mathematics & Statistics with minor in Computer Science, Stony Brook University

Visiting Positions

- Jun.-Aug. 2017 Visiting Researcher, National Institute of Informatics, Tokyo, Japan.
Hosted by Ken-ichi Kawarabayashi.
- Jun.-Aug. 2015 Visiting Scholar, New York University, New York, USA.
Hosted by Boris Aronov.

Conference Publications

- 2018 K. Chandrasekaran, C. Xu, and X. Yu. Hypergraph k -cut in randomized polynomial time. In *SODA '18*, 2018. To appear.
- 2017 K. Bérczi, K. Chandrasekaran, T. Király, E. Lee, and C. Xu. Global and Fixed-Terminal Cuts in Digraphs. In *Approximation, Randomization, and Combinatorial Optimization. Algorithms and Techniques (APPROX/RANDOM 2017)*, volume 81 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 2:1–2:20, Dagstuhl, Germany, 2017.
- 2017 K. Koiliaris and C. Xu. A faster pseudopolynomial time algorithm for subset sum. In *Proceedings of the Twenty-Eighth Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*, pages 1062–1072. SIAM, 2017.
- 2017 C. Chekuri and C. Xu. Computing minimum cuts in hypergraphs. In *Proceedings of the Twenty-Eighth Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*, pages 1085–1100. SIAM, 2017.
- 2015 C. Chekuri, T. Rukkanchanunt, and C. Xu. On element-connectivity preserving graph simplification. In N. Bansal and I. Finocchi, editors, *Algorithms - ESA 2015*, volume 9294 of *Lecture Notes in Computer Science*, pages 313–324. Springer Berlin Heidelberg, 2015.
- 2015 H.-C. Chang, J. Erickson, and C. Xu. Detecting weakly simple polygons. In *Proceedings of the Twenty-Sixth Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*, pages 1655–1670. SIAM, 2015.

Journal Publications

- 2016 C. Xu. Reconstructing edge-disjoint paths faster. *Operations Research Letters*, 44(2):174–176, 2016.
- 2013 N. J. Calkin, J. E. Janoski, A. Nelson, S. Ryan, and C. Xu. Champion spiders in the game of Graph Nim. *Congr. Numer.*, 218:5–19, 2013.

Teaching

- F 2016 CS 374 Algorithms and Models of Computation @ UIUC
- F 2015 CS 498 DL1 “new ” CS 473 Theory II @ UIUC
- S 2015 CS 498 DL1 “new ” CS 473 Theory II @ UIUC
- F 2014 CS 374 Algorithms and Models of Computation @ UIUC
- F 2013 CS 373 Introduction to Theory of Computation @ UIUC
- F 2010 AMS 345 Computational Geometry @ Stony Brook University

Fellowship/Scholarship

- 2017 NSF East Asia and Pacific Summer Institute (EAPSI) Fellow
- 2016-2017 State Farm Companies Foundation Doctoral Scholar
- 2010-2012 NSF Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM)