

Logan Grout

Education

Current PhD	Boston University	Computer Science
2023 MSc	Cornell University	Operations Research & Information Engineering
2020 MMath	University of Waterloo	Combinatorics and Optimization Thesis: <i>Augmenting Trees to Achieve 2-Node-Connectivity</i> Advisor: Joseph Cheriyan
2019 BMath	University of Waterloo	Honours Combinatorics and Optimization, Co-operative Program Joint Honours Computer Science, Co-operative Program

Journal Publications

Ishan Bansal, Joseph Cheriyan, L. G., Sharat Ibrahimpur. *Improved Approximation Algorithms by Generalizing the Primal-Dual Method Beyond Uncrossable Functions.* <https://arxiv.org/abs/2209.11209>. Algorithmica, vol. 86 (2024)

L.G., Joseph Cheriyan, Bundit Laekhanukit. *On a partition LP relaxation for min-cost 2-node connected spanning subgraphs.* <https://arxiv.org/abs/2111.07481>. Operations Research Letters, vol. 51 (2023)

L. G., Benjamin Moore. *The Pseudoforest Analogue for the Strong Nine Dragon Tree Conjecture is True.* <https://arxiv.org/abs/1905.02600>. Journal of Combinatorial Theory Series B, vol. 145 (2019).

Conference Publications

Ishan Bansal, Joe Cheriyan, L. G., and Sharat Ibrahimpur. *Algorithms for 2-Connected Network Design and Flexible Steiner Trees with a Constant Number of Terminals.* <https://doi.org/10.4230/LIPIcs.APPROX/RANDOM.2023.14>. In Approximation, Randomization, and Combinatorial Optimization. Algorithms and Techniques (APPROX/RANDOM) 2023. Volume 275, pp. 14:1-14:14.

Sylvia Boyd, Joseph Cheriyan, Robert Cummings, L. G., Sharat Ibrahimpur, Zoltán Szigeti, Lu Wang. *A 4/3-Approximation Algorithm for the Minimum-Edge Connected Multisubgraph Problem in the Half-Integral Case.* <https://doi.org/10.4230/LIPIcs.APPROX/RANDOM.2020.61>. In Approximation, Randomization, and Combinatorial Optimization. Algorithms and Techniques (APPROX/RANDOM) 2020. Volume 176, pp. 61:1-61:12.

Awards

- 2021 ORIE Outstanding Teaching Assistant Award
- 2020 NSERC Alexander Graham Bell Canada Graduate Scholarship - Master's
- 2020 President's Graduate Scholarship
- 2019 President's Research Award
- 2017 NSERC Undergraduate Student Research Award
- 2017 President's Research Award
- 2015 Ruth Taylor Scholarship (Entrance Scholarship for Outstanding Undergraduate in Mathematics)
- 2015 University of Waterloo President's Scholarship of Distinction

Teaching

2022	Cornell University	Teaching Assistant	Optimization I Optimization II
2021	Cornell University	Teaching Assistant	Basic Engineering Probability and Statistics Optimization II
2020	Certificate of Completion of Fundamentals of University Teaching program, University of Waterloo, Centre for Teaching Excellence		
2019	University of Waterloo	Teaching Assistant	Introduction to Optimization Applied Cryptography
2017	University of Waterloo	Undergraduate Tutor	Linear Algebra I
2016	University of Waterloo	Undergraduate Grader	Introduction to Combinatorics
2015	University of Waterloo	Undergraduate Tutor	Calculus I

Other Experience

2023	Schnackel Engineers	Applied Scientist
2018	University of Waterloo (Supervisor: Joseph Cheriyan)	Undergraduate Student Research Assistant Thin-trees, arboricity, and The Nine Dragon Tree Conjecture
2017	University of Waterloo (Supervisor: Joseph Cheriyan)	Undergraduate Student Research Assistant Graph Orientations