Da Qi Chen
daqic@andrew.cmu.edu

RESEARCH INTERESTS
Combinatorial Optimization, Approximation Algorithms, Extremal Graph Theory

EDUCATION
Carnegie Mellon University – Pittsburgh, USA
Doctoral Candidate
• Program: Algorithm, Combinatorics, and Optimization
• Advisor: R. Ravi

University of Waterloo – Waterloo, Canada
Master of Mathematics
• Department of Combinatorics and Optimization
• Thesis: Cyclically 5-Connected Graphs
• Advisor: Luke Postle

University of Waterloo – Waterloo, Canada
Bachelor of Mathematics
• Department: Statistics and Actuarial Science

PUBLICATIONS
Vector Clock Model for Rumor Spreading
• Authors: Da Qi Chen, R. Ravi, Alex Rudenko
• arXiv: 2111.05450

Many Cliques with Few Edges and Bounded Maximum Degree
• Authors: Debsoumya Chakraborti, Da Qi Chen
• Accepted by Journal of Combinatorial Theory, Series B
• arXiv: 2003.07943

Minimizing the Number of Edges in $K_{s,t}$-Saturated Bipartite Graphs
• Authors: Debsoumya Chakraborti, Da Qi Chen, Mihir Hasabnis
• Accepted by SIAM Journal on Discrete Mathematics
• arXiv: 2009.07651

Vertex Downgrading to Minimize Connectivity
• Authors: Hassene Assi, Da Qi Chen, R. Ravi
• Proceedings of the 17th Scandinavian Symposium and Workshops on Algorithm Theory 2020

Exact Results on Generalized Erdos-Gallai Problems
• Authors: Debsoumya Chakraborti, Da Qi Chen
• Submitted to European Journal of Combinatorics
• arXiv: 2006.04681

CURRENT PROJECTS
Unit Downgrading of Minimum Spanning Trees
• Authors: Hassene Aissi, Solal Attias, Da Qi Chen, R. Ravi

Finding Short-Hop Minimum Spanning Trees
• Authors: Da Qi Chen, David, Ellis Hershkowitz, R. Ravi
PRESENTATIONS

- Bipartite Saturation, Online
  IBS Virtual Discrete Math Colloquium
  November 2020

- Graph Interdiction, Carnegie Mellon University
  SIAM Grad Student Mini-Conference
  October 2020

- Vertex Downgrading to Minimize Connectivity, Online
  17th Scandinavian Symposium and Workshops on Algorithm Theory
  June 2020

- Minimizing Cuts via the Ball-Growing Method, Carnegie Mellon University
  Operation Research Seminar
  May 2020

- On Cyclically 5-Connected Graphs, University of Waterloo
  Graph Theory Seminar
  August 2016

- Dijoins and Dicuts, University of Waterloo
  Undergraduate Research Seminar
  August 2014

TEACHING EXPERIENCE

Carnegie Mellon University
Teaching Assistant
- Business Networks 45-951 (Fall 19), Calculus in 3-D 21-259 (Fall 19, Spring 19), Differential and Integral Calculus 21-120 (Fall 18), Differential Calculus 21-111 (Spring 18), Calculus II 21-112 (Fall 17), Concepts of Math 21-127 (Spring 17), Matrix Algebra with Applications 21-240 (Fall 16)

University of Waterloo
Teaching Assistant
- Intro to Combinatorics Math 239 (Fall 15, Winter 16), Algebra Math 135 (Summer 15), Calculus 1 Math 137 (Summer 16, Winter 15)

AWARDS

- Alexander Graham Bell Canada Graduate Scholarship – Doctoral Program
  2016-2019

- Natural Science and Engineering Research Council of Canada Undergraduate Research Assistantship
  University of Waterloo
  May-August 2014

- Piquard Family Scholarship
  February 2014

- Natural Science and Engineering Research Council of Canada Undergraduate Research Assistantship
  McGill University
  May-August 2013