Weihang Wang

Department of Mathematics

University of Illinois at Urbana-Champaign

Urbana, IL

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Research Interests

Graph Algorithms, Combinatorial Optimization

Education

[†] *Indicates expected*

2017–2023 [†]	Ph.D., Mathematics, University of Illinois at Urbana-Champaign
	Advisor: Karthekeyan Chandrasekaran
2017-2018	M.Sc., Mathematics, University of Illinois at Urbana-Champaign
2013–2017	B.A., Mathematics, Cornell University

Papers

[1] ℓ_p-**norm Multiway Cut**
(With Karthekeyan Chandrasekaran)
European Symposium on Algorithms (ESA), 2021
arXiv: https://arxiv.org/abs/2106.14840

[2] **Fixed Parameter Approximation Scheme for Min-max k-cut**
(With Karthekeyan Chandrasekaran)
Integer Programming and Combinatorial Optimization (IPCO), 2021
arXiv: https://arxiv.org/abs/2011.03454

Talks

[1] ℓ_p-**norm Multiway Cut** (Pre-recorded)
European Symposium on Algorithms (ESA), September 2021

[2] **Fixed Parameter Approximation Scheme for Min-max k-cut**
Integer Programming and Combinatorial Optimization (IPCO), May 2021

[3] **Fixed Parameter Approximation Scheme for Min-max k-cut**
TCS Theory Seminar, UIUC, April 2021

Research Assistant Appointments

Fall 2020   Graduate Research Assistant, ISE, UIUC

Summer 2021   Graduate Research Assistant, ISE, UIUC

Teaching Assistant

Fall 2021	Math 221 Calculus I	UIUC
Spring 2021	Math 234 Calculus for Business I	UIUC
Spring 2020	Math 231 Calculus II	UIUC
Fall 2019	Math 221 Calculus I	UIUC
Spring 2019	Math 234 Calculus for Business I	UIUC
Fall 2018	Math 221 Calculus I	UIUC

Grading

Spring 2018	Math 225 Introductory Matrix Theory	UIUC
	Math 416 Abstract Linear Algebra	UIUC
Fall 2017	Math 225 Introductory Matrix Theory	UIUC
	Math 416 Abstract Linear Algebra	UIUC

Experiences

- **Illinois Geometry Lab of UIUC**   Urbana, IL
  Project Leader   May-June 2020
  · Prepared and lead a research project in IGL-Uni High 2020 participated by high school students.
  · The project studies Wiener connectors under special configurations.
  Project Leader   May-June 2019
  · Prepared and lead a research project in IGL-Uni High 2019 participated by high school students.
  · The project studies Steiner trees in graphs under special configurations.

- **Math Support Center of Cornell University**   Ithaca, NY
  Tutor   October 2014-May 2015
  · Offered help in math during fall and spring semester on a walk-in basis, 2-5 hours/week.
  · Helped students with materials including calculus and linear algebra.

- **SPUR Program of Cornell University**   Ithaca, NY
  Participant   Summer 2015
  · Worked with Prof. Richard Strichartz.
  · Investigated on whether a disconnected fractal exists arbitrarily close in parameter space to some connected fractal.

Selected Coursework

I have taken courses on the following topics.

- Algorithms, Combinatorial Optimization, Fine-Grained Algorithms, Computing for ISE, Algorithms for Big Data, Computational Complexity, Randomized Algorithms, Integer Programming

- Graph theory, Combinatorics, Probability, Abstract algebra, Real analysis, Stochastic processes, Complex analysis, Algebraic number theory