# Chi Ho YUEN

Selected Honors, 2019 - 2021

2018-2019

 ${\rm Spring}~2018$ 

 $Summer\ 2011$ 

AWARDS AND

 ${\bf SCHOLARSHIPS}$ 

CONTACT INFORMATION		ied Math, Room 310 y, 182 George Street 02912, USA	(+1) 401-863-7422 Chi_Ho_Yuen@Brown.edu https://yuenchiho.github.io/
EMPLOYMENT	2019 – current 2018 – 2019	Brown University Croucher Postdoctoral University of Bern Postdoctoral Research	
EDUCATION	2012 - 2018 2008 - 2012	Georgia Institute of Technology Ph.D. in Algorithms, Combinatorics, and Optimization Advisor: Matthew Baker Thesis: Geometric Bijections of Graphs and Regular Matroids Minor: Algorithms with Randomness The Chinese University of Hong Kong B.Sc. in Mathematics (First Class Honor) B.Eng. in Information Engineering (First Class Honor)	
Publications	Oriented Matroids from Triangulations of Products of Simplices. With Marcel Celaya and Georg Loho. Submitted. Preprint available at https://arxiv.org/abs/2005.01787/.  Patchworking Oriented Matroids. With Marcel Celaya and Georg Loho. Submitted. Preprint available at https://arxiv.org/abs/2010.12018/.  The Dimension of an Amoeba. With Jan Draisma and Johannes Rau. Bulletin of the London Mathematical Society 52, 16–23, 2020.  Topological Bijections for Oriented Matroids. With Spencer Backman and Francisco Santos. Séminaire Lotharingien de Combinatoire 82B, Art. 39, 12 pp, 2020.  On the Number of Circuit-cocircuit Reversal Classes of an Oriented Matroid. With Emeric Gioan. Discrete Mathematics 342, 1056–1059, 2019.  Geometric Bijections for Regular Matroids, Zonotopes, and Ehrhart Theory. With Spencer Backman and Matthew Baker. Forum of Mathematics, Sigma 7, e45, 2019.  Geometric Bijections Between Spanning Trees and Break Divisors. Journal of Combinatorial Theory, Series A 152, 159–189, 2017.		

Croucher Fellowship for Postdoctoral Research

Institut Mittag-Leffler Fellowship

Georgia Tech School of Mathematics Best PhD Thesis Award

Caltech – Hong Kong Undergraduate Research Fellowship

### SELECTED TALKS Oriented Matroids from Triangulations of Products of Simplices

AMS Fall Central Sectional Meeting, Special Session on Algebraic, Geometric & Topological Combinatorics. (September 2020)

InterCity (Neuchâtel-Fribourg-Bern) Seminar. (February 2020)

#### The Dimension of an Amoeba

Scandinavian Gathering Around Remarkable Discrete Mathematics. (May 2019)

Georgia Tech Algebra Seminar. (January 2019)

# Geometric Bijections of Graphs and Regular Matroids

CIRM Workshop on Combinatorial Geometries. (September 2018)

Institut Mittag-Leffler Seminar. (February 2018)

MIT Combinatorics Seminar. (October 2017)

Atlanta Lecture Series in Combinatorics and Graph Theory. (September 2017)

Brown University Discrete Math Seminar. (May 2017)

BIRS-CMO Workshop on Sandpile Groups. (November 2015)

Cornell Combinatorics and Discrete Geomtry Seminar. (April 2015)

# Mentoring

## At Brown University

EXPERIENCES

2020–2021 Senior Honor Thesis of Nathan Zelesko (Co-advising with Melody Chan)

## TEACHING EXPERIENCES

### Assistant at University of Bern

Spring 19 Algorithms in Algebra

Fall 18 Mathematik I für Naturwissenschaften

Fall 18 Seminar: Tensors, Geometry and Applications

Instructor at Georgia Tech

Summer 18 Introduction to Discrete Mathematics

Fall 16 Grad Level Graph Theory (Co-lecturing with Robin Thomas)

Teaching Assistant at Georgia Tech

Fall 17 Introduction to Discrete Mathematics
Fall 16 Linear Algebra with Abstract Vector Spaces

Fall 15 Introduction to Discrete Mathematics

Fall 14 Honors Calculus II

Fall 13 Calculus II Fall 12 Calculus III

Other Teaching

Summer 14 Towards Diff. Geometry (Head Tutor of EPYMT at CUHK)

### OTHER SERVICES

Referee for PNAS, Journal of Combinatorial Theory, Series A, Combinatorica, Algebraic Combinatorics, Journal of Algebraic Combinatorics, European Journal of Combinatorics, Electronic Journal of Combinatorics, Discrete Mathematics, Discrete Applied Mathematics, and FPSAC International Conference.

Co-organizer of the minisymposium *Chip-firing and Tropical Curves* at the SIAM Conference on Applied Algebraic Geometry 2019.

Coordinator of the 57th International Mathematical Olympiad.