Chi Ho YUEN

CONTACT INFORMATION	Division of Applied Math, Room 310 Brown University, 182 George Street Providence, RI 02912, USA	(+1) 401-863-7422 Chi_Ho_Yuen@Brown.edu https://yuenchiho.github.io/

EMPLOYMENT	2019 – current	**Brown University** Croucher Postdoctoral Fellow
	2018 – 2019	**University of Bern** Postdoctoral Researcher

EDUCATION	2012 – 2018	**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
	2008 – 2012	**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.

SELECTED HONORS, AWARDS AND SCHOLARSHIPS	2019 – 2021	Croucher Fellowship for Postdoctoral Research
	2018 – 2019	Georgia Tech School of Mathematics Best PhD Thesis Award
	Spring 2018	Institut Mittag-Leffler Fellowship
	Summer 2011	Caltech – Hong Kong Undergraduate Research Fellowship

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 Experiences | **At Brown University**
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, Forum of Mathematics, Sigma, Journal of Combinatorial Theory, Series A, Combinatorica, Algebraic Combinatorics, European Journal of Combinatorics, Electronic Journal of Combinatorics , Discrete Mathematics, Discrete Applied Mathematics*, and *FPSAC International Conference*.

Committee Member of the Major Exam of Changxin Ding (Brandeis, 2021).

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.