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** Postdoctoral Research Associate
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 Celeya and Georg Loho.
Submitted.

Patchworking Oriented Matroids.
With Marcel Celeya and Georg Loho.
In preparation.

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.
In preparation; extended abstract accepted for contributed poster at FPSAC 2019.

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. Extended abstract accepted for contributed talk at FPSAC 2018.

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

SELECTED TALKS	InterCity (Neuchâtel–Fribourg–Bern) Seminar. (February 2020)
	Polyhedral Matching Fields and Oriented Matroids
	Scandinavian Gathering Around Remarkable Discrete Mathematics. (May 2019)
	The Dimension of an Amoeba
	CIRM Workshop on Combinatorial Geometries. (September 2018)
	More on Geometric Bijections and Circuit-cocircuit Reversal Systems
	Institut Mittag-Leffler Seminar. (February 2018)
	The Combinatorics of Break Divisors
	MIT Combinatorics Seminar. (October 2017)
	Spanning Trees and Geometric Bijections
	Atlanta Lecture Series in Combinatorics and Graph Theory. (September 2017)
	The Circuit-cocircuit Reversal System of an Oriented Matroid
	Brown University Discrete Math Seminar. (May 2017)
	Spanning Trees and Geometric Bijections
	BIRS–CMO Workshop on Sandpile Groups. (November 2015)
	Geometric Bijections Between Spanning Trees and Break Divisors
	Cornell Combinatorics and Discrete Geomtry Seminar. (April 2015)
	Geometric Bijections Between Spanning Trees and Break Divisors

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.