Curriculum Vitae

Yifeng Huang

Positions

2022-present **Postdoctoral Fellow**, *University of British Columbia (UBC)*, Mentors: Jim Bryan, Kalle Karu, Zinovy Reichstein

Education

Apr 2022 **Ph.D. in Mathematics**, *University of Michigan, Ann Arbor (U of M)*, Advisor: Michael Zieve, Co-advisor: Jeffery Lagarias
Thesis: Topics on Polynomial Equations in Noncommutative Rings and Motivic Aspects of Moduli Spaces

2015 **B.Sc. in Mathematics, First Honor**, *Hong Kong University of Science and Technology (HKUST)*

Research Interest

I am interested in the interface of algebraic geometry, number theory and combinatorics. I am currently working on matrix Diophantine equations, the Hilbert scheme of points and related moduli spaces, and discrete random matrix theory.

Publications

Preprints

Selected Honors and Awards

2022   AMS-Simons Travel Grant

2019   Indu and Gopal Prasad Family Fund, awarded based on a summer research proposal

Mentoring

2023   *University of Virginia*, REU Program in Number Theory, research mentor

Organizations

2022-present   *UBC*, Algebraic Geometry Seminar

Outreach

2023   *Virginia Tech*, Blacksburg Math Circle, 1-hour lecture on Pólya enumeration theorem to grades 4–8 students

Invited Talks

2023   *USCD*, Combinatorics Seminar

2023   *USCD*, Algebraic Geometry Seminar

2023   *Simon Fraser University*, Number Theory and Algebraic Geometry Seminar

2022,2023   *Virginia Tech*, Algebra Seminar

2020,2023   *UBC*, Discrete Mathematics Seminar

2020,2023   *UBC*, Algebraic Geometry Seminar

2023   Joint Mathematics Meeting, Special Session "Quaternions"

2023   Joint Mathematics Meeting, Special Session "Combinatorics and Geometry of Jordan Type and Lefschetz Properties"

2022,2023   *UBC*, Number Theorey Seminar

2022   *University of Virginia*, Algebra Seminar

2022   *University of Massachusetts, Amherst*, AMS Eastern Sectional, Special Session "Young Voices in Combinatorics"

2022   *University of California, Irvine*, Number Theory Seminar

2022   *University of Southern California*, Combinatorics Seminar

2022   *Rutgers University*, Graduate Algebra and Representation Theory Seminar

2021   *St Johns University, New York City*, NYC Noncommutative Geometry Seminar

2021   *U of M*, RTG Seminar on Number Theory

2020   *University of Waterloo*, Algebra Seminar

2020   *Rutgers University*, Algebra Seminar

2020   *University of Minnesota*, Combinatorics and Commutative Algebra Seminar

Teaching

2023   *UBC*, MATH 221 (Matrix Algebra), Lecturer

2023   *UBC*, MATH 101 (Integral Calculus)

2022   *UBC*, MATH 100 (Differential Calculus), Instructor of four interactive classes of size 60

2020   *U of M*, EECS 203 (Discrete Mathematics for computer science students), Lecturer of a class of size 200

2017-2019   *U of M*, MATH 116 (Calculus II), Instructor of an interactive class of size 20

2018   *U of M*, MATH 676 (Algebraic Number Theory) taught by M. Zieve, Grader

2016,2021   *U of M*, MATH 115 (Calculus I), Instructor of an interactive class of size 20

2015   *U of M*, MATH 105 (Precalculus), Instructor of an interactive class of size 20