

YUWEI ZHU

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EDUCATION

Brown University 布朗大学
Ph.D. in Mathematics 数学博士
Department of Mathematics

2015.9 - 2019.6

Advisor: Prof. Brendan Hassett

Rice University 莱斯大学
M.A. in Mathematics 数学硕士
Department of Mathematics

2013.8 - 2015.5

Advisor: Prof. Brendan Hassett

Hong Kong University of Science and Technology 香港科技大学
B.Sc. in Mathematics 数学学士
Department of Mathematics

2009.8 - 2013.5

Xiamen Double Ten Middle School 厦门双十中学
获得2008年全国高中联赛（福建赛区）数学一等奖

2006.8 - 2009.6

PAPERS AND PREPRINTS

1. *Hodge Structure of $K3$ Type with Real Multiplication and Simple Abelian Fourfolds with Definite Quaternionic Multiplication*, 2019, available on arXiv: 1906.10157
2. *Construction of a CM Mumford Fourfold from Shioda's fourfold*, 2018, available on arXiv: 1810.10058
3. *$K3$ surfaces associated to Abelian Fourfolds of Mumford's Type*, 2018, available on arXiv: 1812.06882

TALKS AND POSTERS

1. JMM Meeting Number Theory, Arithmetic Geometry and Computation Panel Talk, *Shioda's Fourfold and CM Mumford's Fourfold* January 2019, Baltimore, Maryland
2. Poster session: *Shioda's Fourfold and CM Mumford's Fourfold* (2018, AGNES)
3. Graduate student seminar: *Quaternions: Matrices with a twist* (2018, Brown University)
4. Algebraic Geometry Seminar: *$K3$ surfaces arising from Mumford's construction* (2018, Brown University)
5. Poster session: *Families of $K3$ surfaces associated to Mumford's abelian fourfolds* (2017, AGNES)

6. Graduate student seminar: *Lattices and their invariants* (2017, Brown University)
7. Graduate student seminar: *What the Hecke: Intro to modular forms* (2016, Brown University)
8. Graduate student seminar: *Finite and Infinite reflection groups* (2015, Brown University)

CONFERENCES

1. Arithmetic of Low-Dimensional Abelian Varieties, June 2019, ICERM at Brown University
2. Algebraic Geometry Northeastern Series (AGNES), Spring 2019, UMass Amherst
3. Simons Collaboration on Arithmetic Geometry, Number Theory and Computation Annual Meeting, January 2019, New York
4. Algebraic Geometry Northeastern Series (AGNES), Fall 2018, Brown University
5. Arithmetic Geometry, Number Theory and Computation, Summer 2018, MIT
6. From Algebraic Geometry to Vision and AI: A Symposium Celebrating the Mathematical Work of David Mumford, Summer 2018, Harvard
7. Birational Geometry and Arithmetics, Spring 2018, ICERM at Brown University
8. Bi-annual Algebraic and Tropical Meetings of Brown and Yale (BATMOBYLE), Spring 2018, MIT
9. Algebraic Geometry Northeastern Series (AGNES), Fall 2017, Northeastern University
10. Hodge Theory, Moduli and Representation Theory, Summer 2017, SUNY
11. Algebraic Geometry Northeastern Series (AGNES), Spring 2017, SUNY
12. Algebraic Geometry Northeastern Series (AGNES), Fall 2016, UMass Amherst
13. Cycles on Moduli Spaces, Geometric Invariant Theory, and Dynamics, Summer 2016, ICERM at Brown University
14. Biannual BC-NeU Algebraic Geometry Conference, Spring 2016, Boston College
15. Algebraic Geometry Northeastern Series (AGNES), Spring 2016, Yale University
16. Bi-annual Algebraic and Tropical Meetings of Brown and Yale (BATMOBYLE), Fall 2015, Yale University
17. Explicit Methods for Modularity of K3 Surfaces and Other Higher Weight Motives, Fall 2015, ICERM at Brown University
18. Algebraic Geometry Northeastern Series (AGNES), Fall 2015, Brown University
19. Texas Algebraic Geometry Symposium, Spring 2015, Texas A & M University

TEACHING EXPERIENCE

MATH0520 Linear Algebra Instructor

Course Head: Sergei Treil

Course material:

2019 Spring

Brown University

<https://sites.google.com/a/brown.edu/math-0520-spring-2019-outline-and-homework-tuth/>

MATH0190 Advanced Placement Calculus (Physics/Engineering) Instructor *2017*

Fall

Course Head: Allen Wu

Brown University

Course material: techniques in integration, sequences and series, Taylor expansion, Fourier expansion, elementary ordinary differential equation

MATH0100 Calculus II Instructor

2017 Spring

Course Head: Dan Katz

Brown University

Course material: techniques in integration, sequences and series, Taylor expansion, elementary ordinary differential equation

TA experience: in Rice University I also served as Teaching Assistant of Calculus I, Calculus II, Multivariable Calculus and Ordinary Differential Equations.

SKILLS

Coding

Latex

Magma

Elementary C++

Python

Language

English (proficient)

Chinese (mother language)

Japanese (proficient)

German (adept)

French (beginner)

REFEREE INFORMATION

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Prof. Dan Katz

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