

Richard A. P. Birkett - Curriculum Vitæ

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EDUCATION

- 2023** PhD in Mathematics, University of Notre Dame, USA
Thesis: Algebraic Stability and Skew Products on the Berkovich Projective Line
Advisor: Jeffrey Diller
- 2020** MS in Mathematics, University of Notre Dame, USA
- 2018** MMath in Part III of the Mathematical Tripos, University of Cambridge, UK
- 2017** MA (Cantab) in the Mathematical Tripos, University of Cambridge, UK

AWARDS

- 2023** Richard Sady Dissertation Prize, University of Notre Dame
- 2019** Richard Sady Prize, University of Notre Dame
Awarded to the best second year graduate student based on performance in courses took in their first year.
- 2017** Scholar of the College, Jesus College, University of Cambridge
For distinguished examination performance in Part II Tripos examinations.
- 2014** Exhibitioner of the College, Jesus College, University of Cambridge
For distinguished examination performance in Part IA Tripos examinations.

ARTICLES

- 2023** Algebraic Stability for Skew Products
In preparation.
- 2023** Skew Products on the Berkovich Line
In preparation.
- 2021** On the Stabilisation of Rational Surface Maps
Under review. Available on ArXiv : <https://arxiv.org/abs/2110.00095v2>.

TEACHING RESPONSIBILITIES

- Fall 2022** Teaching Assistant: Linear Algebra & Differential Equations
- Spring 2022** Teaching Assistant: Glynn Mathematics Seminar II
Honors course for non-science based undergraduates. Topics: graph theory, topology, knot theory.
- Spring 2021** Lecturer: Calculus III
- Fall 2020** Grader: Graduate Complex Analysis
- Summer 2020** Lecturer: Calculus III
Flipped classroom format.
- Spring 2020** Teaching Assistant: Linear Algebra & Differential Equations
- Fall 2019** Teaching Assistant: Calculus III

INVITED TALKS

- Jan 2023** Joint Mathematics Meeting 2023, Boston
AMS Special Session on Recent Advances in Arithmetic Dynamics
Skew Products on the Berkovich Projective Line
- Dec 2022** Algebra Seminar, Pennsylvania State University
Non-Ideal Algebraic Geometry with Berkovich Space
- Nov 2022** Midwest Dynamical Systems Conference, IUPUI
The Dynamics of Rational Skew Products
- Oct 2022** Dynamics Seminar, University of Michigan
Algebraic Stability and Skew Products
- May 2022** Workshop in Arithmetic and Algebraic Dynamics, Harvard
The Dynamics of Rational Skew Products
- Mar 2022** Complex Dynamics School, IUPUI
Kähler Manifolds
- Nov 2021** Dynamical Systems Seminar, IUPUI
Stabilising Birational Surface Maps
- Feb 2018** GATEWAY Seminar Series, University of Warwick
Critical Recurrence in the Mandelbrot Set

CONFERENCES ORGANISED

- May 2022** Midwest Dynamical Systems Early Career Conference, University of Notre Dame
Co-organised with Ethan Farber (Boston College) and Katelynn Huneycutt (Ohio State University).

CONFERENCES ATTENDED

- May 2022** Workshop in Arithmetic and Algebraic Dynamics, Harvard
- May 2022** Adventurous Berkeley Complex Dynamics Workshop, MSRI
Poster: The Dynamics of Rational Skew Products
- Apr 2022** Midwest Several Complex Variables, University of Notre Dame
- Mar 2022** Complex Dynamics School, IUPUI
- Feb 2022** Introductory Workshop: Complex Dynamics, MSRI (remote)
- Feb 2022** Connections Workshop: Complex Dynamics, MSRI (remote)
- Nov 2021** Midwest Dynamical Systems Conference, Northwestern University
- Oct 2021** Quantitative Aspects in Complex Analysis, Geometry and Dynamics, Lille (remote)
- Nov 2020** Midwest Dynamical Systems Early Career Conference, remote
- Mar 2020** Winter Dynamics Day, Northwestern University
- Nov 2019** Fall Dynamics Day, Northwestern University
- Nov 2019** Midwest Dynamical Systems Conference, University of Illinois at Chicago
- May 2019** Midwest Dynamical Systems Early Career Conference, Ohio State University

SELECTED SERVICE AND OUTREACH

- April 2023** Mathematics workshop at 'Expanding Your Horizons', Notre Dame, IN
Organised with Wern Yeong, Lorenzo Riva, Luca Nijim (University of Notre Dame)
- March 2023** Study Group Guide, Arizona Winter School
- Jan 2023** Mathematics Exhibition for 'Science Alive', St Joseph County Public Library, IN
Organised with Wern Yeong and Lorenzo Riva (University of Notre Dame)
- 2021 – 2022** President of the Notre Dame Mathematics Graduate Student Association

- Summer 2019** Instructor and Organiser: Numbers, Sets and Graphs
Undergraduate reading group.
- 2017** Volunteer at the University of Cambridge Maths Open Days
- 2015** Guest speaker at Hereford Sixth Form College
“To Infinity and Beyond”
- 2015** Guest speaker John Masefield High School
“Colour by Numbers”
- 2015** Guest speaker John Masefield High School
“To Infinity and Beyond”
- 2014, 2015** Volunteer STEP tutor at Hereford Sixth Form College

SKILLS & EXPERIENCE

- Fall 2019** Full credit course “Pedagogy and Practice in the College Classroom”, Notre Dame
- Summer 2019** Summer School on Dynamical Systems, University of Houston
- 2017** Summer Undergraduate Research Project (SUROP), University of Cambridge
“Critical Recurrence in the Mandelbrot Set”, supervised by Holly Krieger.

Last updated on 2023-05-11.