

Aimeric Malter

WORK AND EDUCATION

Beijing Institute of Mathematical Sciences and Applications Postdoctoral Fellow	Beijing, China 2024 -
Tokyo University of Agriculture and Technology JSPS Postdoctoral Research Fellow, Host researcher: Dr Yuki Hirano	Tokyo, Japan 2023 - 2024
University of Birmingham Ph.D. in Algebraic Geometry, Advisor: Dr Tyler Kelly	Birmingham, UK 2019–2023
University of Cambridge MMath in Mathematics, Merit (73%)	Cambridge, UK 2018–2019
University of Cambridge BA in Mathematics, First-class honours (70%)	Cambridge, UK 2015–2018

RESEARCH INTERESTS

- Algebraic Geometry
- Mirror Symmetry
- Derived Categories
- Toric Geometry
- Logarithmic Geometry
- Birational Geometry
- Homological projective Duality

SEMINAR AND CONFERENCE TALKS AND PRESENTATIONS

- Kavli Institute for the Physics and Mathematics of the Universe, MS Seminar (16 April 2024, IPMU, Japan) „Exoflops and derived categories “.
- Workshop on Singularities and Mirror Symmetry (5 December 2022, University of Glasgow, UK) „The use of VGIT to study derived categories of mirror constructions“.
- Nottingham Algebraic Geometry Group (6 October 2022, University of Nottingham, Virtual). „Using geometric invariant theory to relate toric mirror constructions “
- CALF meeting (23rd March 2022, University of Birmingham, UK) „A derived equivalence of the Libgober-Teitelbaum and the Batyrev-Borisov Mirror Constructions“.
- GaEL (Géométrie Algébrique en Liberté) XXIX (27 May 2022, Université Paris-Saclay, France). Participated in the poster session.
- Pure Mathematics Lunchtime Seminar (12 May 2021, University of Birmingham, Virtual). „An introduction to Homological Mirror Symmetry“.

PUBLICATIONS

1. **A. Malter**, “A derived equivalence of the Libgober-Teitelbaum and the Batyrev-Borisov mirror constructions”. *International Mathematics Research Notices*, 2023, rmad081.
2. **A. Malter**, D. Schleicher and D. Zagier, “New looks at old number theory”, *Amer. Math. Monthly*, vol. 120, no.3, pp. 243-264, 2013, ISSN: 0002-9890.

TEACHING

- **Teaching Assistant** at University of Birmingham 2019–Current
Courses:
 - *Probability and Statistics (1PS/1PS2) (Fall 2019, Spring 2020)*,
 - *Mechanics (1Mech/1Mech2) (Fall 2019, Spring 2020)*
 - *Linear Algebra and Linear Programming (2LALP) (Spring 2020, Fall 2021)*,
 - *Real Analysis and Calculus (1RAC/1RAC2) (Fall 2019, Spring 2020)*,
 - *Vectors, Geometry and Linear Algebra (1VGLA/1VGLA2) (Fall 2019, Spring 2020)*,
 - *Real and Complex Analysis (2RAC) (Spring 2022)*.

CONFERENCES ATTENDED

- Workshop on Complex Geometry in Osaka (13-15 March 2024, Osaka University, Japan)
- Tsinghua-Tokyo workshop on Calabi-Yau (15-19 January 2024, Fujikensyujyo, Japan)
- Workshop on mirror symmetry and related topics (18-22 December 2023, Kyoto University, Japan)
- CALF meetings (regularly 2019-2023, throughout the UK)
- COW meetings (regularly 2019-2023, throughout the UK)
- Geometry and mathematical Physics seminar (regularly 2019-2023, University of Birmingham, UK)
- BRaG V: British algebraic geometry meeting (14-16 September 2022, Imperial College London, UK)
- COMB in Camb: Combinatorial methods in algebraic geometry (5-9 September 2022, University of Cambridge, UK)
- „Derived Categories and Rationality“ special session of the AMS-EMS-SMF Joint International Meeting (18-22 July 2022, Université de Grenoble-Alpes, France).
- ICM sectional workshop Number Theory and Algebraic Geometry (11-14 July 2022, ETH Zürich, CH)
- GAeL XXIX (23-27 May 2022, Paris, France)
- Newton-Okounkov bodies and Fanosearch (5-8 October 2021, virtual)
- British Early Career Mathematicians’ Colloquium (15-16 July 2021, virtual)
- Gael XXVIII (5 - 9 July 2021, virtual)
- Nottingham algebraic geometry group meetings (regular in 2020-2021, virtual)
- Workshop „Toric Fano Varieties and beyond“(4 December 2020, virtual)
- 3CinG Workshop Algebraic and Tropical Geometry (16-18 September 2020, virtual)
- Workshop: K-theory, algebraic cycles and motivic homotopy theory (January 13 - 17 2020, Isaac Newton Institute, Cambridge, UK)
- Graduate Summer School on Homological Algebra of Mirror Symmetry (July 29 - August 2 2019, Fields Institute, Toronto, CAN)

SERVICE

- Local Organiser for CALF (March 2022). CALF is a meeting designed for algebraic geometers in the UK who are in the early stages of their career. It is the junior version of the Cambridge, Oxford and Warwick seminar series (COW).
- Reviewer for zbMATH Open.

LANGUAGES

- **German:** Native speaker
- **French:** Native speaker
- **English:** Fluent
- **Spanish:** Conversational
- **Japanese:** Basic