

George Cooper – Curriculum Vitæ

Centro di Ricerca Ennio De Giorgi, Collegio Puteano,
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Citizenship	British
Employment	Centro di Ricerca Ennio De Giorgi, Scuola Normale Superiore di Pisa Junior Visiting Researcher (postdoc), 2024 – 2026.
Education	Balliol College, University of Oxford DPhil Mathematics, 2020 – 2024. <ul style="list-style-type: none">• <i>Thesis title: Universal Moduli of Sheaves over Curves and Moduli of Flags of Varieties via Geometric Invariant Theory.</i>• <i>Thesis successfully defended in May 2024.</i>• <i>Supervisors: Professors Frances Kirwan, Jason Lotay and Alexander Ritter.</i> MMath Mathematics, 2016 – 2020. <ul style="list-style-type: none">• Second/Third Year Overall Classification: I• Fourth Year Classification: I• <i>Fourth year dissertation: Spin Structures on Riemann Surfaces.</i>
Publications	<ul style="list-style-type: none">• <i>Twisting Moduli for $GL(2)$</i>, J. Num. Th. 217 (2020), 142-162. Joint with Bedert, B. and Oliver, T. and Zhang, P.
Preprints	<ul style="list-style-type: none">• <i>Moduli Spaces of Hyperplanar Admissible Flags</i>, arXiv preprint 2304.02453.• <i>GIT Constructions of Compactified Universal Jacobians over Stacks of Stable Maps</i>, arXiv preprint 2210.11457 (submitted).
Awards and Scholarships	EPSRC Scholarships <ul style="list-style-type: none">• EPSRC Doctoral Scholarship, 2020-2024.• EPSRC Vacation Bursary, 2019. Balliol College Exhibitions and Scholarships <ul style="list-style-type: none">• Elected as an Exhibitioner of Balliol College 2017-2018 and as a Scholar of Balliol College 2018-2020. Balliol College Andrew Mason Memorial Grant <ul style="list-style-type: none">• Partially awarded in 2019 in support of my Research Internship.

Teaching

Wadham College, University of Oxford

- Part A Linear Algebra, Michaelmas Term 2022 *tutor*.
- Undergraduate Admissions, 2022 *assistant interviewer*.

New College, University of Oxford

- Part A Projective Geometry, Trinity Term 2021 & 2022 *tutor*.
- Prelims Geometry, Michaelmas Term 2020 & 2021 *tutor*.

St. Edmund Hall, University of Oxford

- Part B Algebraic Curves, Hilary Term 2022 *tutor*.

Mathematical Institute, University of Oxford

- Part B Algebraic Curves, Hilary Term 2023 *tutor*, Hilary Term 2021 *teaching assistant*.
- Part B Geometry of Surfaces, Michaelmas Term 2022 *tutor*.
- Part C Lie Groups, Hilary Term 2022 *teaching assistant*, Hilary Term 2021 *teaching assistant, two classes*.
- Part C Algebraic Geometry, Michaelmas Term 2021 *teaching assistant*.

PROMYS Europe, University of Oxford

- Counsellor, Long Vacation 2018.

TOPS (Tōkyō Oxford Programme of Summer)

- Mathematics Teacher, Long Vacation 2022.

Balliol College, University of Oxford

- Tutor, Frontier Access Programme, Long Vacation 2022.

Invited Talks

- *Compactified Universal Jacobians over $\overline{\mathcal{M}}_{g,n}$ via GIT*, Young Geometers Symposium, Isaac Newton Institute, January 2024.
- *Non-Reductive GIT and Moduli of Unstable Objects*, Algebraic Geometry Seminar, University of Glasgow, November 2023.
- *Compactified Universal Jacobians over $\overline{\mathcal{M}}_{g,n}$ via GIT*, Algebraic Geometry Seminar, University of Liverpool, April 2023.
- *Compactified Universal Jacobians over $\overline{\mathcal{M}}_{g,n}$ via GIT*, Geometry and Analysis Seminar, University of Oxford, January 2023.
- *Compactified Universal Jacobians over $\overline{\mathcal{M}}_{g,n}$ via GIT*, CALF Seminar, University of Cambridge, November 2022.

Other Talks

- *An Introduction to Non-Reductive Geometric Invariant Theory*, Junior Geometry Seminar, University of Oxford, March 2023.
- *Reading Group on Deformations in Algebraic Geometry* (organiser), University of Oxford, October–December 2022.
- *Reading Group on Toric Geometry* (organiser), University of Oxford, January–March 2022.
- Various other sessions led in graduate reading groups, including on algebraic stacks, étale cohomology and intersection theory.

Conferences Attended

- *UK Algebraic Geometry Network Meeting 2024*, Durham University (UK), September 2024.
- *2nd Simons Math Summer Workshop: Moduli*, Simons Center for Geometry and Physics (US), July 2024.
- *Regulators V*, Università di Pisa (IT), June 2024.
- *A Panorama of Moduli Spaces*, Goethe-Universität Frankfurt am Main (DE), February 2024.
- *New Equivariant Methods in Algebraic and Differential Geometry*, Isaac Newton Institute for Mathematical Sciences (UK), January–March and June 2024.
- *UK Algebraic Geometry Network Meeting 2023*, University of Nottingham (UK), September 2023.
- *VBAC 2023: Recent Applications to the Geometry of Moduli Spaces*, Universität Duisburg–Essen (DE), August 2023.
- *Algebraic Groups and their Representations*, University of Birmingham (UK), July 2023.
- *Arithmetic, Birational Geometry and Moduli Spaces*, Brown University (US), June 2023.
- *Quivers, Clusters, Moduli and Stability*, University of Oxford (UK), January 2023.
- *British Algebraic Geometry Meeting V*, Imperial College London (UK), September 2022.
- *VBAC 2022: Moduli Spaces and Vector Bundles - New Trends*, University of Warwick (UK), July 2022.
- *Conférence à Toulouse pour Simpson*, Université de Toulouse III (FR), June 2022.
- *Summer School on Moduli Spaces and Stability Conditions*, Centro Internazionale per la Ricerca Matematica (IT), June 2022.
- *Géométrie Algébrique en Liberté XXIX*, Université Paris-Saclay (FR), May 2022.
- *Spring School on Invariants in Algebraic Geometry*, Université de Bourgogne (FR), May 2022.
- *AGGITatE Days*, University of Essex (UK), April 2022.
- *Unifying Themes in Geometry*, Lake Como School of Advanced Studies (IT), September 2021 (online).
- *Summer School on Derived and Triangulated Categories*, Bergische Universität Wuppertal (DE), September 2021.
- *Géométrie Algébrique en Liberté XXVIII*, Loughborough University (UK), July 2021 (online).

Other

- Organised and led sessions for Year 12 and 13 UK state school students covering the Oxford Maths admission test and introducing students to university mathematics on behalf of Balliol College, August–October 2022.
- Co-organiser of the *Junior Geometry Seminar* at Oxford, 2022–23.
- Served as President of the Mathematics Undergraduate Representative Committee, Oxford, February to November 2019.