

Pierrick Bousseau

Curriculum Vitae

Personal Information

Nationality: France
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Work address: Mathematical Institute, University of Oxford, Oxford, UK

Employment

09.2022–present **Associate Professor**, *University of Oxford, UK*
09.2022–present **Tutorial Fellow**, *St Peter's College, University of Oxford, UK*
08.2022–07.2025 **Assistant Professor**, *University of Georgia, US*
01.2022–07.2022 **Assistant Professor**, *ETH Zürich*
09.2020–12.2021 **Chargé de recherche**, *CNRS (permanent research position), Laboratoire de Mathématiques d'Orsay, Université Paris-Sud (on leave since 01.2022)*
09.2018–08.2020 **Junior fellow (postdoc)**, *ETH Zürich, Institute for Theoretical Studies*

Education

2014 – 2018 **PhD in Mathematics**, *Imperial College London*
Supervisor: Richard Thomas
2013 – 2014 **ENS Diploma**, *École Normale Supérieure de Paris*
Major in Mathematics, Minor in Physics
2011 – 2013 **MSc in Mathematics**, *École Normale Supérieure de Paris, Paris 11*
With highest distinction
2010 – 2011 **BSc in Physics**, *École Normale Supérieure de Paris, Paris 11*
With highest distinction
2010 – 2011 **BSc in Mathematics**, *École Normale Supérieure de Paris, Paris 11*
With highest distinction
2008 – 2010 **MPSI-MP***, *Lycée Louis le Grand, Paris*
Preparatory classes for the Grandes Ecoles, Mathematics, Physics, Computer Science
2008 **French Baccalauréat**
High school qualification, with highest distinction

Grants and honors

- 2025 **2025 Sloan Research Fellow in Mathematics**
<https://sloan.org/fellowships/2025-Fellows>
- 2024 **Boris Dubrovin medal**
"The medal recognizes exceptionally promising young researchers who have already made outstanding contributions to the fields of mathematical physics and geometry. The Dubrovin medal is awarded every two years." <https://math.sissa.it/content/boris-dubrovin-medal>.
- 2024-2029 **co-PI, NSF Research and Training Grant, *RTG: geometry and topology***, award number: 23422252, \$2,497,014.
- 2023-2026 **PI, NSF Grant, *Dualities in Enumerative Algebraic Geometry***, award number: 2302117, \$251,418.
- 2023-2025 **co-PI, NSF Conference Grant, *Georgia Algebraic Geometry Symposium***, \$24,980.
- 2022-2027 **European Union ERC Starting Grant, *grant number: 101039837***
This award (1.4 Million Euros) was to pay for 2 PhD students, 3 postdocs for a period of 5 years. These grants are highly competitive, with roughly 12 awards per year in mathematics across Europe. (I declined this award when moving to the US.)
- 2021-2022 **Laureate of the Peccot Lecture**
Distinction each year given to a French mathematician under 30 years old for their promising work [Cours Peccot 2021-2022 du Collège de France](#).
- 2020 **SwissMAP Innovator Prize**
Awarded to PhD students or postdocs for important scientific achievements in the research areas of the Swiss National Centre of Competence in Research SwissMAP-The Mathematics of Physics
- 2019 **Yael Naim Dowker Centenary Prize in Mathematics**
Awarded by Imperial College, London to graduate students with an outstanding PhD thesis.
- 2018 **Doris Chen PhD Merit Award**
Awarded by Imperial College, London to graduate students for their outstanding achievements.
- 2017 **Young Scientist Award of the Journal of Geometry and Physics**
For a presentation at the Workshop on Algebraic Geometry and Physics, SISSA.
- 2014 **PhD Scholarship from Imperial College London**
- 2010 **Admission to the École Normale Supérieure de Paris (ENS)**
- 2009 **Silver Medal**
International Physics Olympiads (IPHO)
- 2008 **1st Prize winner at Concours général de Physique**
French national competition in Physics

Papers

- 2025 *BPS polynomials and Welschinger invariants*, joint with Hülya Argüz, 48 pages, arXiv:2506.02770, submitted.
- 2024 *Non-toric brane webs, Calabi-Yau 3-folds, and 5d SCFTs*, joint with Valery Alexeev and Hülya Argüz, 84 pages, arXiv:2410.04714, submitted.
- 2024 *The KSBA moduli space of stable log Calabi-Yau surfaces*, joint with Valery Alexeev and Hülya Argüz, 92 pages, arXiv:2402.15117, submitted.
- 2023 *Quivers and curves in higher dimension*, joint with Hülya Argüz, arXiv:2308.07270, **Transactions of the American Mathematical Society**, <https://doi.org/10.1090/tran/9232>.
- 2023 *All-genus WDVV recursion, quivers, and BPS invariants*, joint with Longting Wu, 35 pages, arXiv:2303.00503, submitted.
- 2023 *Quivers, Flow Trees, and Log Curves*, joint with Hülya Argüz, 61 pages, arXiv:2302.02068, to appear in **Algebraic Geometry**.
- 2022 *Holomorphic Floer theory and Donaldson-Thomas invariants*, arXiv:2210.17001, **String Math 2022**, AMS Proceedings of Symposia in Pure Mathematics, 107, 2024.
- 2022 *BPS Dendroscopy on Local P^2* , joint with Pierre Descombes, Bruno Le Floch, and Boris Pioline, arXiv:2210.10712, **Communications in Mathematical Physics**, 405, 108, 2024.
- 2022 *Fock-Goncharov dual cluster varieties and Gross-Siebert mirrors*, joint with Hülya Argüz, arXiv:2206.10584, **Journal für die reine und angewandte Mathematik (Crelle's Journal)**, 802, 125-171, 2023.
- 2021 *Gromov–Witten invariants of complete intersections*, joint with Hülya Argüz, Rahul Pandharipande, and Dimitri Zvonkine, arXiv:2109.13323, **Journal of Topology**, 16(1), 264-343, 2023.
- 2021 *The flow tree formula for Donaldson-Thomas invariants of quivers with potentials*, joint with Hülya Argüz, arXiv:2102.11200, **Compositio Mathematica**, 158(12), 2206-2249, 2022.
- 2020 *Stable maps to Looijenga pairs*, joint with Andrea Brini and Michel van Garrel, arXiv:2011.08830, **Geometry and Topology**, 28(1), 393–496, 2024.
- 2020 *Stable maps to Looijenga pairs: orbifold examples*, joint with Andrea Brini and Michel van Garrel, arXiv:2012.10353, **Letters in Mathematical Physics**, 111(4), 1-37, 2021.
- 2020 *Strong positivity for the skein algebras of the 4-punctured sphere and of the 1-punctured torus*, arXiv:2009.02266, **Communications in Mathematical Physics**, 1-58, 2022.
- 2020 *Real Log Curves in Toric Varieties, Tropical Curves, and Log Welschinger Invariants*, joint with Hülya Argüz, arXiv:2004.05124, **Annales de l'Institut Fourier**, 72(4), 1547-1620, 2022.
- 2020 *Scattering diagrams, sheaves and curves*, arXiv:2002.08741, **Acta Mathematica Sinica, English Series**, 37(7), 1005–1022, 2021.

- 2020 *Holomorphic anomaly equation for (P^2, E) and the Nekrasov-Shatashvili limit of local P^2* , joint with Honglu Fan, Shuai Guo, and Longting Wu, arXiv:2001.05347, **Forum of Mathematics, Pi**, 9, E3. doi:10.1017/fmp.2021.3, 2021.
- 2019 *A proof of N. Takahashi's conjecture for (P^2, E) and a refined sheaves/Gromov–Witten correspondence*, arXiv:1909.02992, **Duke Mathematical Journal**, 172 (15) 2895–2955, 2023.
- 2019 *Scattering diagrams, stability conditions, and coherent sheaves on P^2* , arXiv:1909.02985, **Journal of Algebraic Geometry**, 31(4), 593–686, 2022.
- 2019 *On the log-local principle for the toric boundary*, joint with Andrea Brini and Michel van Garrel, arXiv:1908.04371, **Bulletin of the London Mathematical Society**, 54(1), 161–181, 2022.
- 2019 *Refined floor diagrams from higher genera and lambda classes*, arXiv:1904.10311, **Selecta Mathematica**, 27(3), 1–42, 2021.
- 2018 *On an example of quiver Donaldson-Thomas/relative Gromov-Witten correspondence*, arXiv:1811.02448, **International Mathematics Research Notices**, 2021(15), 11845–11888, 2021.
- 2018 *Quantum mirrors of log Calabi-Yau surfaces and higher genus curves counting*, arXiv:1808.07336, **Compositio Mathematica**, 156(2), 360–411, 2020.
- 2018 *The quantum tropical vertex*, arXiv:1806.11495, **Geometry and Topology**, 24(3) 1297–1379, 2020.
- 2017 *Refined tropical curve counting from higher genera and lambda classes*, arXiv:1706.07762, **Inventiones Mathematicae**, 215(1), 1–79, 2019.

Invited Talks at International Conferences

- 2025 **Workshop New perspectives on skein modules**, CIRM, Luminy, France, 28 July, 2025
- 2025 **Summer School on Enumerative Geometry and Geometric Representation Theory**, 5 hours lecture series, University of Pisa, Italy, 23–27 June, 2025
- 2025 **MIST workshop**, The Chinese University of Hong Kong, 5 June, 2025
- 2025 **MIST lecture series**, 4 hours lecture series, The Chinese University of Hong Kong, 27 May– 1 June, 2025
- 2025 **Strings and Geometry 2025**, IGAP/ICTP–Trieste, Italy, 10 April, 2025
- 2025 **AMS special session on enumerative invariants of moduli spaces in algebraic geometry**, AMS Spring Central Meeting 2025 at the University of Kansas, KS, US, 29 March, 2025
- 2025 **Recent developments in higher genus curve counting**, Simons Center for Geometry and Physics, Stony Brook, New-York, US, 12 February, 2025
- 2025 **Algebra and quantum geometry of BPS quivers**, Les Diablerets, Switzerland, 20–24 January, 2025
- 2024 **Enumerative Geometry in East Asia 2024**, KIAS, Korea, 16–20 December, 2024

- 2024 **Geometry and Physics of Mirror Symmetry**, (2 lectures), *The University of Sheffield, UK*, 2-6 September, 2024
- 2024 **Enumerative Geometry Beyond Spaces**, *Banff International Research Station, Canada*, 25-30 August, 2024
- 2024 **LMS Invited Lectures 2024**, (2 expository lectures + 1 research talk), *Imperial College London, UK*, 1-5 July, 2024
- 2024 **Toric and Tropical Techniques in Symplectic Field Theory**, *Institut Mittag-Leffler, Sweden*, 24-28 June, 2024
- 2024 **String Math 2024**, *ICTP, Trieste, Italy*, 10-14 June 2024
- 2024 **Geometric, Algebraic, and Physical structures around the moduli of Meromorphic Quadratic Differentials**, *Mini-course (3 lectures) Simons Center for Geometry and Physics, Stony Brook, US.*, 27-31 May 2024
- 2024 **Real and Logarithmic Enumerative Geometry**, *Oberwolfach, Germany*, 5-10 May, 2024
- 2024 **Texas Algebraic Geometry Symposium**, *Texas A and M University, College Station, US*, 5-7 April, 2024
- 2024 **SCMS workshop on enumerative geometry**, *Shanghai Center for Mathematical Sciences, Shanghai, China*, 11-15 March, 2024
- 2024 **Geometry of the South**, *Institute of the mathematical sciences of the Americas, Miami, US*, 8-10 February, 2024
- 2024 **AMS Special Session on Combinatorial Perspectives on Algebraic Curves and their Moduli**, *Joint Mathematical Meetings, San Francisco, US*, 6 January, 2024
- 2023 **Complex Lagrangians, Mirror Symmetry, and Quantization**, *Banff International Research Station, Canada*, 15-20 October, 2023
- 2023 **AMS Special Session: From Classical to Quantum Low-Dimensional Topology**, *University at Buffalo (SUNY), NY, US*, 9 September, 2023
- 2023 **AMS Special Session: Geometry, Physics and Representation Theory**, *University at Buffalo (SUNY), NY, US*, 9 September, 2023
- 2023 **Summer school on cluster algebras 2023**, *organized at Nagoya university in Japan, online*, Mini-course (3 lectures), 20-22 August, 2023
- 2023 **Derived Categories, Moduli Spaces, and Counting Invariants**, *Quivers and curves in higher dimension*, 4 July, Imperial College London, UK.
- 2023 **Wall-Crossing Structures, Analyticity, and Resurgence**, *DT Invariants and Holomorphic Curves*, 9 June, IHES, France.
- 2023 **Homological Mirror Symmetry**, *DT Invariants and Holomorphic Curves*, 25 January, Miami, US.
- 2022 **Algebraic Geometry and Complex Geometry**, *DT invariants of the local projective plane (Minicourse, 3 lectures)*, 28 November- 2 December, CIRM, Luminy, France.

- 2022 **Kansas Geometry Day 2022**, *Fock-Goncharov dual cluster varieties and Gross-Siebert mirrors*, 12 November, Kansas University, US.
- 2022 **MSRI Workshop: New four-dimensional gauge theories**, *Holomorphic Floer theory and Donaldson-Thomas invariants*, 24 October, Berkeley, US.
- 2022 **Conference Mirror symmetry for Looijenga interiors and beyond**, *Fock-Goncharov dual cluster varieties and Gross-Siebert mirrors*, 29 July 2022, online talk, Istanbul, Turkey.
- 2022 **String Math 2022**, *Holomorphic Floer theory and DT invariants*, 12 July 2022, University of Warsaw, Poland.
- 2022 **Workshop on geometric representation theory**, *Cluster varieties and mirror symmetry*, 22 June 2022, University of Paris, France.
- 2022 **Workshop on Quantum Geometry**, *Gromov–Witten theory of complete intersections*, 2 talks, 26–27 April 2022, IHES, France.
- 2022 **Workshop on Quivers, Calabi-Yau threefolds and DT Invariants**, *D-branes on local P^2 revisited*, 12 April 2022, Jussieu, Paris, France.
- 2022 **Recent Advances on Moduli Spaces of Curves**, *Gromov–Witten theory of complete intersections*, 21 March 2022, Leysin, Switzerland.
- 2021 **Workshop in honour of Lothar Göttsche’s 60th birthday**, *The flow tree formula for DT invariants of quivers with potentials*, 14 December 2021, online.
- 2021 **IHES Summer School on Enumerative Geometry, Physics and Representation Theory**, *The skein algebra of the 4-punctured curve from curve counting*, 5 July 2021, Paris, France.
- 2021 **Conference on BPS states, mirror symmetry, and exact WKB**, *The flow tree formula for DT invariants of quivers with potentials*, 2 lectures on 30 June and 1 July 2021, Sheffield, UK.
- 2021 **Summer school of the ANR "Symplectic, real, and tropical aspects of enumerative geometry"**, *Aspects of refined enumerative geometry*, 5 hours lecture series, 14–17 June 2021, Le Croisic, France.
- 2021 **Swiss Map site visit conference**, *The flow tree formula for quivers with potentials*, 25 May 2021, online organised by Swiss Map, Switzerland.
- 2020 **FRG Workshop on Moduli Spaces and Stability**, *A scattering diagram for coherent sheaves on the projective plane*, 7 December 2020, online hosted by University of Illinois Chicago, US.
- 2020 **Simon’s Collaboration Conference on Floer-theoretic and algebro-geometric aspects of SYZ mirror symmetry**, *Skein algebras from higher genus mirror symmetry*, 1 October 2020, online organised by the Simon’s Collaboration on Homological Mirror Symmetry, US.
- 2020 **7th annual SwissMAP General Meeting**, *Strong positivity for the skein algebras of the 4-punctured sphere and of the 1-punctured torus*, 7 September 2020, online organised by Swiss Map, Switzerland.

- 2020 **Hausdorff School on Perverse Sheaves in Enumerative Geometry**, *Quasimodular forms from Betti numbers*, 10 February 2020, Hausdorff Center for Mathematics, Bonn, Germany.
- 2020 **Lecture series at Kyoto University**, *The Tropical Vertex*, 5 hours lectures, February 2020, Kyoto University, Japan.
- 2020 **5th KTGU Workshop**, *Quasimodular forms from Betti numbers*, 7 February 2020, Kyoto University, Japan.
- 2020 **Rencontres en géométrie énumérative et réelle**, *Quasimodular forms from Betti numbers*, 21 January 2020, Université de Nantes, France.
- 2019 **Beijing-Zurich Moduli Workshop**, *Scattering diagrams, sheaves on P^2 and curves in P^2 relative to a smooth cubic*, 9-12 September 2019, 3 hours lecture series at BICMR, Beijing, China.
- 2019 **Workshop on Mirror symmetry and cluster algebras**, *Towards DAHA from tropical geometry*, 15 July 2019, Cambridge, UK.
- 2019 **Oberwolfach Workshop on Logarithmic Enumerative Geometry and Mirror Symmetry**, *A proof of a conjecture of N. Takahashi*, 17 June 2019, Oberwolfach, Germany.
- 2019 **Summer School on New Perspectives in Gromov-Witten Theory**, *A proof of Takahashi's conjecture*, 4 June 2019, Sorbonne Université, Paris, France.
- 2019 **Oberwolfach Workshop on Tropical Geometry: new directions**, *Tropical geometry and coherent sheaves on the projective plane*, 3 May 2019, Oberwolfach, Germany.
- 2019 **Conference on Moduli in Budapest**, *On the Betti numbers of moduli spaces of semistable sheaves on the projective plane*, 4 April 2019, Budapest, Hungary.
- 2019 **Conference on Mirror symmetry and related topics**, *Higher genus wall-crossing and quantization*, 28 January-2 February 2019, Miami, US.
- 2018 **Tropical geometry in Europe**, *Quantum mirrors of log Calabi-Yau surfaces and higher genus curve counting*, 21-23 November 2018, Nantes, France.
- 2018 **Workshop on Geometry and Mathematical Physics**, *The quantum tropical vertex*, 09 July 2018, Warwick University, UK.
- 2018 **MSRI Workshop on Structures in Enumerative Geometry**, *Quantum mirrors of log Calabi-Yau surfaces and higher genus curves counting*, 22 March 2018, Berkeley, US.
- 2017 **Conference on Open Gromov-Witten theory, integrable hierarchies and mirror symmetry**, *Quantum mirrors of log Calabi-Yau surfaces and higher genus curves counting*, 17-20 October 2017, ETH, Zurich, Switzerland.
- 2017 **Modern Moduli Theory Graduate School**, *DT invariants from holomorphic curves and a geometric interpretation of Block-Göttsche invariants*, 20 September 2017, Oxford, UK.
- 2017 **Workshop on Algebraic Geometry and Physics**, *DT invariants from holomorphic curves and a geometric interpretation of Block-Göttsche invariants*, 20 June 2017, SISSA, Trieste, Italy.

- 2016 **Workshop on Curves on surfaces and 3-folds**, *Around the GW/Kronecker correspondence*, 21 June 2016, EPFL, Lausanne, Switzerland.
- 2014 **ERC - FIRB workshop Mirror symmetry, Enumerative Geometry and Related Topics**, 27 May 2014, Pavia, Italy.

Invited Talks at Research Seminars

- 2025 **Geometry and Analysis Seminar**, 16 June 2025, Oxford, UK.
- 2025 **Online talk for the Simons Collaboration on Moduli of Varieties**, 26 March 2025, online.
- 2025 **ETH Algebraic Geometry and Moduli Seminar**, 22 January 2025, ETH Zürich.
- 2024 **Academia Sinica, Algebraic Geometry Seminar**, 23 December 2024, Institute of Mathematics, Academia Sinica, Taipei.
- 2024 **Utah Algebraic Geometry Seminar**, 19 November 2024, Utah University.
- 2024 **Informal Mathematical Physics Seminar**, 11 November 2024, Columbia University.
- 2024 **Geometry seminar**, 8 November 2024, University of Georgia.
- 2024 **Stanford Algebraic Geometry Seminar**, 1 November 2024, Stanford University.
- 2024 **Stanford Department Colloquium**, 31 October 2024, Stanford University.
- 2024 **NCTS Seminar in Algebraic Geometry**, 12 September 2024, National Taiwan University, online.
- 2024 **ETH Algebraic Geometry and Moduli Seminar**, 17 May 2024, ETH Zürich.
- 2024 **Oregon Algebra Seminar**, 18 April 2024, University of Oregon.
- 2024 **Ohio State University Algebraic Geometry Seminar**, 2 April 2024, Ohio State University.
- 2024 **Algebraic Geometry in String Theory Seminar, CMSA**, 21 March 2024, Harvard University.
- 2023 **M Seminar, Kansas State University**, 13 April 2023, online.
- 2023 **Berkeley Informal String-Math Seminar**, 3 March 2023, UC Berkeley.
- 2023 **Séminaire d'Algèbre et Géométrie du Laboratoire Mathématique de Versailles**, 21 March 2023, online.
- 2023 **Iowa Geometry and Topology seminar**, 16 February 2023, online.
- 2022 **Stanford Algebraic Geometry seminar**, 18 November 2022, online.
- 2022 **Geometry seminar**, 14 October 2022, University of Georgia.
- 2022 **Geometry, Symmetry and Physics seminar**, 3 October 2022, Yale University.
- 2022 **Nottingham Online Algebraic Geometry Seminar**, 22 July 2022, online, hosted by Nottingham University.
- 2021 **Séminaire Darboux**, 9 December 2021, LPTHE, Jussieu, Paris.

- 2021 **Algebraic geometry and number theory seminar**, 25 November 2021, online, hosted by the Institute of Science and Technology Austria (IST Austria).
- 2021 **ETH Algebraic Geometry and Moduli Seminar**, 17 November 2021, online, hosted by ETH Zürich.
- 2021 **Algebraic Geometry in String Theory seminar**, 16 November 2021, online, hosted by Harvard CMSA.
- 2021 **EPFL seminar**, 11 November 2021, EPFL, Lausanne.
- 2021 **Seminar in Real and Complex Geometry**, 4 November 2021, online, hosted by Tel-Aviv University.
- 2021 **Séminaire d'algèbre**, 7 June 2021, online, hosted by IMJ-PRG, Paris.
- 2021 **KIAS Weekly Geometry Seminar**, 27 May 2021, online, hosted by KIAS, Seoul.
- 2021 **Joint Harvard-CUHK-YMSC Differential Geometry Seminar**, 6 April 2021, online.
- 2021 **Geometry, Symmetry and Physics seminar**, 23 February 2021, online, hosted by Yale University.
- 2021 **Colloquium of the ZMP, Hamburg**, 18 February 2021, online, hosted by the University of Hamburg.
- 2021 **Séminaire Géométrie algébrique**, 2 February 2021, Laboratoire de Mathématiques de Versailles.
- 2021 **Derived algebraic geometry seminar**, 13 January 2021, online.
- 2020 **Boston University Geometry and Physics Seminar**, 3 December 2020, online.
- 2020 **Séminaire d'Analyse et Géométrie**, 17 November 2020, online.
- 2020 **Northwestern Geometry and Physics Seminar**, 13 November 2020, online.
- 2020 **Berkeley Informal String Math Seminar**, 3 November 2020, online.
- 2020 **Greater Washington Topology Seminar**, 23 October 2020, online.
- 2020 **Séminaire Arithmétique et Géométrie Algébrique**, 6 October 2020, Université Paris-Saclay.
- 2020 **UBC Algebraic Geometry Seminar**, 2 October 2020, online.
- 2020 **ETH Algebraic Geometry and Moduli Seminar**, 25 September 2020, online.
- 2020 **Working group on scattering diagrams**, 18 June 2020, online.
- 2020 **ETH Zoominar**, 3 June 2020, online.
- 2020 **University of California San Diego Algebraic Geometry Seminar**, 15 May 2020, online.
- 2020 **EDGE Algebraic Geometry Seminar**, 12 May 2020, online.
- 2020 **Trieste Algebraic Geometry Seminar**, 6 May 2020, online.
- 2020 **Seminar of Physical Mathematics**, 13 January 2020, Heidelberg University.
- 2019 **Séminaire Fables Géométriques**, 4 November 2019, Geneva University.
- 2019 **ETH Algebraic Geometry and Moduli Seminar**, 30 October 2019.

- 2019 **Algebraic Geometry Seminar**, 22 October 2019, Warwick University.
- 2019 **Algebraic Geometry Seminar**, 17 October 2019, Sheffield University.
- 2019 **Séminaire de Géométrie Algébrique**, 14 June 2019, Université d'Angers.
- 2019 **ETH Algebraic Geometry and Moduli Seminar**, 29 Mai 2019, ETH Zürich.
- 2019 **London Geometry and Topology Seminar**, 10 Mai 2019, Imperial College London.
- 2019 **Algebraic Geometry Seminar**, 7 Mai 2019, Imperial College London.
- 2019 **Berkeley Algebraic Geometry Seminar**, 19 April 2019, University of Berkeley.
- 2019 **Algebraic Geometry Seminar**, 11 April 2019, University of Texas at Austin.
- 2019 **Séminaire de Géométrie Énumérative**, 8 February 2019, Sorbonne Université, Jussieu.
- 2018 **Séminaire Arithmétique et Géométrie Algébrique**, 11 December 2018, Orsay.
- 2018 **Topology and Geometry Seminar**, 4 December 2018, Hebrew University, Jerusalem.
- 2018 **Algebraic Geometry and Moduli Seminar**, 5 October 2018, ETH Zurich.
- 2018 **KCL/UCL Geometry Seminar**, 7 February 2018, University College London.
- 2017 **Algebraic Geometry Seminar**, 22 November 2017, University of Hamburg.
- 2017 **Algebraic Geometry Seminar**, 31 October 2017, Warwick University.
- 2017 **Algebraic Geometry Seminar**, 24 October 2017, Sheffield University.
- 2017 **Séminaire de géométrie tropicale**, 11 October 2017, Jussieu, Paris.
- 2017 **Séminaire d'Analyse et Géométrie**, 10 October 2017, Jussieu, Paris.
- 2017 **The London Geometry and Topology Seminar**, 16 June 2017, London.
- 2017 **ETH Algebraic Geometry and Moduli Seminar**, 3 March 2017, Zürich.
- 2016 **Cambridge Algebraic Geometry Seminar**, 19 October 2016, Cambridge.
- 2016 **KIAS Algebraic Geometry Seminar**, 2 March 2016, Seoul.

Teaching

- 2025 Spring Instructor, Math 8330 Topics in Algebraic Geometry: Hodge theory, University of Georgia.
- 2024 Fall Instructor, Math 2700 Elementary Differential Equations, University of Georgia.
- 2024 Fall Instructor, Math 3000 Introduction to Linear Algebra, University of Georgia.
- 2024 Spring Instructor, Math 8300 Introduction to enumerative geometry (PhD level), University of Georgia.
- 2023 Fall Instructor, Math 2500 Accelerated Calculus III for Engineering Students (two sections), University of Georgia.
- 2023 Spring Instructor, Math 2700 Elementary Differential Equations, University of Georgia.
- 2022 Fall Instructor, Math 2250 Calculus 1, University of Georgia.

- 2022 Spring Instructor, Intersection theory in algebraic geometry (Master-PhD level), ETH Zurich.
- 2019 Instructor, Short course on tropical geometry, log geometry, and applications to Gromov-Witten theory (5 hours, PhD level), ETH Zurich.
- 2018 Teaching assistant, M2PM5: Metric spaces and topology, Imperial College London.
- 2018 Teaching assistant, M2AA1: Differential equations, Imperial College London.
- 2017 Teaching assistant, M2AA2: Multivariable Calculus, Imperial College London.
- 2017 Teaching assistant, M2PM2: Algebra II, Imperial College London.
- 2017 Teaching assistant, M2AA1: Differential equations, Imperial College London.
- 2016 Teaching assistant, M3P14: Elementary Number Theory, Imperial College London.
- 2016 Teaching assistant, M2PM2: Algebra 2, Imperial College London.
- 2016 Teaching assistant, M2PM1: Real Analysis, Imperial College London.
- 2016 Teaching assistant, M2PM3: Complex Analysis, Imperial College London.
- 2016 Teaching assistant, M1F: Foundations of Analysis, Imperial College London.

Supervision

PhD students:

- 2022–current Sayan Chattopadhyay, University of Georgia.
- 2023–current Kaden Saucedo, joint supervision with Hülya Argüz, University of Georgia.

MSc students:

- 2022 Jöran Schlömer. Thesis title: Homological mirror symmetry for log Calabi-Yau surfaces and associated quivers, ETH Zurich.
- 2020 Felix Thimm. Thesis title: Hilbert schemes of Points on 3-folds, ETH Zurich.

Postdocs:

- 2022–current Soumya Sinha Babu, University of Georgia.

Organization

- 2027 Co-organizer of the semester program [New Trends in Tropical Geometry](#), at SLMath (previously MSRI), January 19 - May 21, 2027
- 2025 Co-organizer [Georgia Algebraic Geometry Symposium](#), March 21-23, University of Georgia
- 2024 Co-leader [Research Experience for Undergraduates \(REU\) SUMMER 2024: Non-commutative algebra from geometry](#), August 12-23, University of Georgia
- 2024 Faculty co-ordinator of a project for the [UGA MathCamp 2024](#), July 15-19, University of Georgia
- 2024 Co-organizer [UGA Industrial Mathematics Day 2024](#), University of Georgia, April 27, 2024

- 2024 Co-organizer [Sonia Kovalevsky Day at UGA](#), University of Georgia, April 20, 2024
- 2024 Co-organizer [AMS Special Session on Moduli Spaces in Algebraic Geometry](#), Florida State University in Tallahassee, FL, March 23-24, 2024
- 2023 Co-organizer [Georgia Algebraic Geometry Symposium](#), April 28-30, University of Georgia
- 2017 Co-organizer of the British Isle Workshop, "Higgs bundles: algebraic and differential geometric perspectives", April 2-8 2017, Isle of Wight

Service

- 2020-present Reviewer for AMS Mathematical Reviews and Zentralblatt
- 2025 Refereeing for Journal of the London Mathematical Society.
- 2024 Refereeing for Cambridge Journal of Mathematics, Journal of the European Mathematical Society, Symmetry, Integrability and Geometry: Methods and Applications (SIGMA), Journal of Differential Geometry, Forum of Math Sigma, EPIGA, and Communications in Mathematical Physics.
- 2023 Refereeing for Journal of the European Mathematical Society, Journal of Algebraic Geometry, Journal of Differential Geometry, Algebra and Number Theory, Compositio Mathematica, and Advances in Mathematics.
- 2022 Refereeing for Selecta Mathematica, Inventiones Mathematicae, Journal of Differential Geometry, Forum of Math Sigma, Letters in Mathematical Physics, Transactions of the AMS, and Advances in Mathematics.
- 2021 Refereeing for the Journal of Algebra, Compositio Mathematica, Inventiones Mathematicae, Journal of Algebraic Geometry, Geometry and Topology, and Letters in Mathematical Physics.
- 2020 Refereeing for International Mathematics Research Notices, Selecta Mathematica, Journal de l'École polytechnique and the Journal of the London Mathematical Society.
- 2019 Refereeing for Transactions of the American Mathematical Society, International Mathematics Research Notices and Proceedings of the American Mathematical Society.
- 2018 Refereeing for Le Journal de l'Institut de Mathématiques de Jussieu and International Mathematics Research Notices.

Languages

- English fluent
- French native
- German intermediate