

Algebraic, complex and birational geometer. Research outputs on K-stability, canonical metrics, moduli of log pairs, geometric invariant theory, algebraic surfaces, Fano varieties, singularity theory, classification problems, computational algebraic geometry and positivity of line bundles.

Employment Record

- Oct 2022–now Senior Lecturer in Pure Mathematics. University of Essex. Colchester, UK.
- 2019–Sep 2022 Lecturer in Pure Mathematics. University of Essex. Colchester, UK.
- 2017–2019 Research Associate and member of the Simons Collaboration on Special Holonomy in Geometry, Analysis, and Physics. University of Bath. Bath, UK.
- 2016–2017 Postdoctoral fellow. Max Planck Institute for Mathematics. Bonn, Germany.
- Summer 2015 Adjunct Professor. Korea University. Seoul, Korea
- 2013–2016 J.J. Sylvester Assistant Professor (postdoctoral position). Johns Hopkins University. Baltimore, MD, USA.
- 2009–2013 Tutor. University of Edinburgh. Edinburgh, UK.
- 2007–2008 Research Intern. Networking Research Group (UAM). Madrid, Spain.
- Summer 2007 Intern Programmer. Disney Interactive Studios: Black Rock. Brighton, UK.

Education

- 2021 Fellowship of the Higher Education Academy. AdvanceHE. UK.
- 2009–2013 Ph.D. in Mathematics. University of Edinburgh, UK.
Supervisor: Prof. Ivan Cheltsov. Thesis title: *Dynamic alpha-invariants of del Pezzo surfaces with boundary*.
- 2008–2009 Master of Advanced Study in Mathematics. University of Cambridge, UK.
- 2003–2008 Licenciatura en Matemáticas (equivalent to MSci in Mathematics). Universidad Autónoma de Madrid, Spain.
- 2003–2008 Ingeniería Informática (equivalent to MEng in Computer Engineering). Universidad Autónoma de Madrid, Spain.
- 2006–2007 Erasmus Student (4th year B.A./B.Eng.). University of Sussex, UK.
- 1999–2003 SciTech Baccalaureat. IES Perez Galdos. Madrid, Spain.
Summa Cum Laude.

Publications

1. C. Araujo, A-M. Castravet, I. Cheltsov, K. Fujita, A-S. Kaloghiros, **J. Martinez-Garcia**, C. Shramov, H. Süß, N. Viswanathan. *The Calabi Problem for Fano Threefolds*. Book manuscript. 322 pages. Submitted June 2021. Preprint: MPIM Preprint Series (2021) 31.
2. **J. Martinez-Garcia**, C. Spotti, *Some observations on the dimension of Fano K-moduli*. Submitted December 2020. Preprint: arXiv:2101.05643
3. P. Cascini, **J. Martinez-Garcia**, Y. Rubinstein, *On the body of ample angles of asymptotically log Fano varieties*. Rendiconti del Circolo Matematico di Palermo Series 2. 18 pages. In press. Accepted January 2022. Preprint: arXiv:2007.15595.

4. P. Gallardo, **J. Martinez-Garcia**, C. Spotti, *Applications of the moduli continuity method to log K-stable pairs*. Accepted for publication in *J. Lond. Math. Soc. (2)*. September 2020. Preprint: arXiv:1811.00088.
5. **J. Martinez-Garcia**, *Constant scalar curvature Kähler metrics on rational surfaces*. Accepted for publication in *Math. Nachr.* May 2020. Preprint: arXiv:1712.04857.
6. P. Gallardo, **J. Martinez-Garcia**, Z. Zhang, *Compactifications of the moduli space of plane quartics and two lines*. *Eur. J. Math.*, **4(3)**, 1000–1034, 2018. Preprint: arXiv:1708.08420.
7. I. Cheltsov, **J. Martinez-Garcia**, Unstable polarized del Pezzo surfaces. *Trans. Amer. Math. Soc.* **372**, 7255–7296 (2019). Preprint: arXiv:1707.06177.
8. P. Gallardo, **J. Martinez-Garcia**, Moduli of cubic surfaces and their anticanonical divisors. *Rev. Mat. Complut.* **32**, no. 2, pp 853–873 (2019). Preprint: arXiv:1607.03697.
9. I. Cheltsov, **J. Martinez-Garcia**, Stable polarized del Pezzo surfaces, *Int. Math. Res. Not. IMRN* no. **18**, 5477–5505 (2020). Preprint: arXiv:1606.04370.
10. P. Gallardo, **J. Martinez-Garcia**, Variations of geometric invariant quotients for pairs, a computational approach, *Proc. Amer. Math. Soc.* **146**, 2395–2408 (2018). Preprint: arXiv:1602.05282.
11. I. Cheltsov, **J. Martinez-Garcia**, Dynamic alpha-invariants of del Pezzo surfaces, *Int. Math. Res. Not. IMRN* no. **10**, 2994–3028 (2016). Preprint: arXiv:1405.5161.
12. **J. Martinez-Garcia**, Log canonical thresholds of del Pezzo surfaces in characteristic p, *Manuscripta Math.* **145**, 89–110 (2014). Preprint: arXiv:1203.0995.
13. E. Lopez de Vergara, J. Aracil, **J. Martinez**, et. al., Application of ontologies for the integration of network monitoring platforms, in *Proc. 1st European Workshop on Mechanisms for the Future Internet*, 10-11 July 2008, Salzburg, Austria.
14. I. Gutierrez, **J. Martinez**, P. Santiago, et. al., Analisis de la relacion entre la intensidad del trafico de datos y el numero de alumnos en universidades españolas (Analysis of the relationship among the data flow traffic intensity and the number of students in Spanish universities), *JITEL 2007 Proceedings*.

Software Packages

1. P. Gallardo, **J. Martinez-Garcia**, Variations of GIT quotients package v0.6.13. (2017) Python. DOI: 10.15125/BATH-00458.

Research Funding, Awards and Grants

- | | |
|-----------|--|
| 2024 | University of Essex Faculty of Science and Health Research Innovation and Support Fund (PI). ‘K-moduli of Fano threefolds’. |
| 2022–2024 | EPSRC Standard Grant EP/V055399/1 (PI). ‘The Calabi problem for smooth Fano threefolds’. |
| 2021 | Heilbronn Institute for Mathematical Research Focused Research workshop grant (co-PI). Project ‘K-stability of smooth Fano 3-folds’. |
| 2020 | London Mathematical Society Scheme 1 Conference Grant to support ‘EDGE Days 2020: Explicit K-stability And Moduli Problems’ (co-PI). |
| 2020 | Glasgow Mathematical Journal Trust grant to support ‘EDGE Days 2020: Explicit K-stability And Moduli Problems’ (co-PI). |
| 2020 | Compositio Foundation grant to support ‘EDGE Days 2020: Explicit K-stability And Moduli Problems’ (co-PI). |
| 2020 | Edinburgh Mathematical Society grant to support ‘EDGE Days 2020: Explicit K-stability And Moduli Problems’ (co-PI). |

- 2020 Heilbronn Institute for Mathematical Research Focused Research workshop grant (co-PI). Project ‘K-stability of smooth Fano 3-folds’. Withdrawn, due to CoVid-19 pandemic.
- 2019 London Mathematical Society Scheme 9 Celebrating New Appointments (PI).
- 2019 London Mathematical Society Scheme 4 Research in Pairs (PI).
- 2018 Seal of Excellence to my application for a Horizon 2020 Marie Skłodowska-Curie action. This is awarded by the EU’s Horizon 2020 to high-quality project proposals scoring 85% or more in excellence, impact, quality and efficiency of implementation, but which are not funded due to budget constraints.
- 2018–2021 American Institute for Mathematics. SQuaRE program (co-PI). *Computational aspects of GIT with a view toward geometry of moduli spaces.*
- 2017 ICERM Collaborate@ICERM (co-PI). *Interplay among hypersurface singularities, Hodge theory and the moduli of hypersurfaces and their hyperplane sections.*
- 2016 Hausdorff Research Institute for Mathematics Research in Groups (co-PI). *Moduli spaces of log del Pezzo pairs and K-stability.*
- 2013 Alice Margaret Campbell Bequest Fund Award on completion of PhD.
- 2013 London Mathematical Society Invited Lectures 2013 (conference organisation, co-PI).
- 2013 London Mathematical Society Scheme 8 (conference organisation, co-PI).
- 2010–2013 MTEM student scholarship for PhD in Mathematics (School of Mathematics, University of Edinburgh).
- 2012 Dr Laura Wisewell Travelling Scholarship. (School of Mathematics, University of Edinburgh).
- 2011 University of Edinburgh Small Project Grant (University of Edinburgh).
- 2011 London Mathematical Society Young British and Russian Mathematicians Scheme.
- 2010 London Mathematical Society Travel Grants for 2010 International Congress of Mathematics.
- 2008–2010 Scholarship for Postgraduate Studies in the UK. (Fund. Caja Madrid).
- 2008–2009 Honorary Scholar. (Cambridge European Trust).
- 2007–2008 Stipend (part-time Research Intern in the Networking Research Group). (UAM).
- 2004–2008 4 Research Scholarships for Proficiency University students. (Madrid Regional Government).
- 2003 Madrid Government Scholarship for Proficiency A-Levels. (Madrid Regional Government; Univ. fees).

Postdoctoral Supervision Experience

1. Tiago Duarte-Guerreiro. Senior Research Officer (Postdoc). University of Essex. 2022-2023.

PhD Supervision Experience

1. Theodoros S. Papazachariou. PhD student. University of Essex. 2019-2022.

Other Supervision Experience

1. Master dissertations, University of Essex. 2021–2022, 5 dissertations.
2. Master dissertations, University of Essex. 2020–2021, 5 dissertations.
3. Undergraduate Final Year Projects, University of Essex. 2019–2020, 4 projects; 2020–2021, 7 projects; 2021–2022, 5 projects.
4. Conor Shackle. Undergraduate Year Long Project student. University of Bath. 2018–2019. Project: *The geometry of complex algebraic curves.*

5. Muhammad Sohaib Khalid. Undergraduate research summer student. University of Bath. 2018.
Project: *Canonical metrics and automorphism groups of surfaces*.

Invited Talks at Conferences

- Jul 2022 *Some observations on the dimension of Fano K -moduli*. K-stability and Birational Geometry, University of Nottingham.
- Sep 2022 *The Calabi problem for Fano 3-folds I*. K-stability and Kähler Geometry, University of Cambridge.
- Feb 2021 *Asymptotically log del Pezzo Surfaces*. Fano Varieties And Birational Geometry (online conference), University of Nottingham.
- Sep 2020 *Asymptotically log del Pezzo Surfaces*. ZAG Marathon (online conference), worldwide.
- Nov 2019 *The moduli continuity method for log Fano pairs*. Bayes Centre. EDGE Days 2019. University of Edinburgh, Edinburgh, UK.
- Jun 2019 *K-stable polarised del Pezzo surfaces*. Birational Geometry, Kähler-Einstein metrics and Degenerations, Institute of Mathematical Sciences, ShanghaiTech University, Shanghai, China.
- Apr 2019 *The moduli continuity method for log Fano pairs*. Conference “Birational Geometry, Kähler-Einstein Metrics And Degenerations, Laboratory of Mirror Symmetry, Higher School of Economics, Moscow, Russia.
- Feb 2019 *The moduli continuity method for log Fano pairs*. GLEN Seminar, University of Manchester, UK.
- Feb 2018 *K-Stability, Canonical Metrics, and Calabi Dream Rational Surfaces*. COW Seminar. City, University of London, UK.
- Dec 2017 *Compactification of the moduli space of certain $K3$ surfaces*. The Shokurovs. Center for Geometry and Physics, Institute for Basic Science. Pohang, Korea.
- Sep 2017 *Métricas de Kähler con curvatura escalar constante en superficies de del Pezzo*. Sesión paralela de Geometría Algebraica. IV Congreso de Jóvenes Investigadores, Real Sociedad Matemática Española, Universitat de València, Spain.
- Aug 2017 *Stability and cscK metrics on polarised del Pezzo surfaces*. Stability, Boundedness and Fano Varieties. Beijing International Centre for Research Mathematics, China.
- Aug 2017 *Moduli of Fano hypersurfaces and anti-canonical sections via computational algebraic geometry*. Experimental Classification of Fano Varieties. University of Tübingen, Germany.
- Jun 2017 *Stability and cscK metrics on polarised del Pezzo surfaces*. EDGE Days 2017. University of Edinburgh, UK.
- Apr 2017 *Positivity of the twisted CM line bundle for log pairs*. Positivity in algebraic and complex geometry. International Centre for the Mathematical Sciences, Edinburgh, UK.
- Jun 2016 *K-stability of Polarized del Pezzo surfaces*. Edge Days. University of Edinburgh, Scotland, UK.
- Jul 2013 *Lectures in Kähler-Einstein metrics and algebraic geometry. Computing Tian’s alpha-invariant*. Graduate workshop on Kähler Geometry, Simons Center for Geometry and Physics. Stony Brook, NY. USA.
- Jun 2013 *Kähler-Einstein metrics with cone singularities and Donaldson’s programme*. London Mathematical Society Invited Lectures 2013 (support talk). University of Edinburgh. Edinburgh, UK.
- May 2013 *Kähler-Einstein metrics with cone singularities and birational geometry*. NCTS/TPE Workshop. Taipei, Taiwan.
- May 2010 *Introduction to algebraic topology*. With Nir Avni. Sheaves in Representation Theory. Skye, UK.
- Feb 2010 *Stiefel-Whitney classes and classification of real projective spaces*. SMSTC. Scotland, UK.

Invited Talks at Department Seminars

- May 2020 *The moduli continuity method for log Fano pairs* (delivered remotely due to CoVid-19 pandemic). University of Nottingham, Nottingham, UK.
- May 2019 *Revisiting Hilbert's work on invariants of polynomials to study cubic surfaces*. Mathematical Sciences Departmental Seminar, University of Essex, Colchester, UK.
- Apr 2018 *Asymptotically log del Pezzo surfaces*. Algebra and Number Theory seminar, University of Maryland, College Park, MD, USA.
- Mar 2018 *Strong Calabi dream surfaces and K-stability of polarised del Pezzo surfaces*. Algebraic Geometry Seminar, Johns Hopkins University, Baltimore, MD, USA.
- Apr 2017 *Stability and cscK metrics on polarised del Pezzo surfaces*. University of Bath, UK.
- Mar 2017 *Existence of constant scalar curvature Kähler metrics on polarised del Pezzo surfaces*. University of Versailles-St. Quentin, France.
- Feb 2017 *Geometric Invariant Theory and Moduli of log Pairs*. University of Düsseldorf, Germany.
- Feb 2017 *On the moduli space of log K-polystable pairs formed by a hypersurface and a hyperplane section*. University of Cambridge, UK.
- Dec 2016 *Moduli space of cubic surfaces and their anticanonical divisors*. Centre for Quantum Geometry of Moduli Spaces, Aarhus University, Denmark.
- Dec 2016 *Moduli space of cubic surfaces and their anticanonical divisors*. University of Duisburg-Essen, Germany.
- Oct 2016 *Moduli space of cubic surfaces and their anticanonical divisors*. University of Basel, Switzerland.
- Oct 2016 *Moduli space of cubic surfaces and their anticanonical divisors*. EDGE Seminar. University of Edinburgh, UK.
- Aug 2015 *On the moduli space of cubic surfaces and their anticanonical divisors*. Simons Center for Geometry and Physics. University of Stony Brook, NY. USA.
- Jul 2015 *Singular Kähler-Einstein metrics of small angles*. Centre for Geometry and Physics. Postech. Pohang, Korea.
- Jun 2015 *On the moduli space of cubic surfaces and their anticanonical divisors*. University of California, San Diego. San Diego, CA. USA.
- Mar 2015 *On the moduli space of cubic surfaces and their anticanonical divisors*. University of Harvard. Cambridge, MA. USA.
- Feb 2015 *On the moduli space of cubic surfaces and their anticanonical divisors*. University of Notre Dame. Notre Dame, IN. USA.
- Dec 2014 *On the moduli space of cubic surfaces and their anticanonical divisors*. MAGIC Seminar. Imperial College London. London, UK.
- Oct 2014 *Singular Kähler-Einstein metrics of small angles*. JHU-UMD Complex Geometry Seminar. University of Maryland. College Park, MD. USA.
- Sep 2014 *Asymptotically log del Pezzo surfaces*. Algebraic Geometry Seminar. University of Georgia. Athens, GA. USA.
- Mar 2014 *Kähler-Einstein edge metrics on log del Pezzo surfaces*. Algebraic Geometry Seminar. Johns Hopkins University. Baltimore, MD. USA.
- Nov 2013 *Kähler-Einstein edge metrics on Fano varieties via birational geometry*. Algebraic Geometry Seminar. University of Missouri-Columbia, MI. USA.
- Apr 2013 *Kähler-Einstein metrics with cone singularities and birational geometry*. MAGIC Seminar. Imperial College London. London, UK.
- Jan 2013 *Kähler-Einstein metrics meet Birational Geometry on a del Pezzo surface*. Junior Geometry Seminar. Imperial College London. London, UK.
- Dec 2012 *Donaldson's program to solve the Yau-Tian-Donaldson conjecture from an algebraic viewpoint*. Kuznetsov's seminar. Steklov Mathematical Institute. Moscow, Russia.

- Nov 2012 *Minimal Model Programme for dummies.* Geometry Club. Edinburgh, UK.
- Nov 2012 *Intersection Theory and classification of surfaces for the layman.* Geometry Club. Edinburgh, UK.
- Feb 2012 *Degenerations of del Pezzo surfaces after Hacking and Prokhorov.* Edinburgh Geometry Seminar. University of Edinburgh. UK.
- Jan 2012 *The Tale of the Minimal Model Program.* 6th Edinburgh-Heriot-Watt Colloquium. UK.
- Dec 2011 *Log canonical thresholds of del Pezzo surfaces, computation and applications.* Iskovskikh Seminar. Steklov Mathematical Institute, Moscow, Russia.
- Apr 2010 *Chords of Alexander Grothendieck's mathematics.* PG Colloquium. University of Edinburgh. Edinburgh, UK.
- Feb 2010 *What is a toric variety?* Geometry Club. University of Edinburgh. Edinburgh, UK.
- May 2010 *Introduction to algebraic topology.* With Nir Avni. Sheaves in Representation Theory. Skye, UK.
- Mar 2009 *Yau's solution to the Calabi conjecture.* Part III seminar series. University of Cambridge. Cambridge, UK.
- Dec 2008 *Parallelizable manifolds.* Part III seminar series. University of Cambridge. Cambridge, UK.

Contributed Talks

- Sep 2020 *Strong calabi dream rational surfaces.* Simons's conference on K-stability. Higher Dimensional Geometry in NYC, Simons Foundation/Simons Center for Geometry and Physics. Online (worldwide).
- Apr 2011 *Log canonical thresholds of del Pezzo surfaces in characteristic p .* Young Researchers in Mathematics. University of Warwick, UK.

Poster Presentations

- Sep 2016 *Moduli space of cubic surfaces and their anticanonical divisors.* Cremona Conference 2016. University of Basel, Switzerland.
- Nov 2014 *Kähler-Einstein metrics and birational geometry.* AGNES. University of Pennsylvania. Philadelphia, PA. USA.
- Apr 2014 *Dynamic alpha-invariants of del Pezzo surfaces.* Texas Algebraic Geometry Symposium. Rice University. Houston, TX. USA.
- Oct 2013 *Kähler-Einstein metrics and birational geometry.* AGNES. Boston College, MA. USA.
- Sep 2013 *Log canonical thresholds, tigers and cats.* Foliation Theory in Algebraic Geometry. Simons Foundation, NY. USA.
- Oct 2012 *Log canonical thresholds, tigers and cats.* Groups of Automorphisms in Birational and Affine Geometry. Leviso, Italy.

Short Research Visits

- Jun 2021 American Institute of Mathematics (virtual, due to pandemic). San Jose, CA, USA.
- Jun 2019 American Institute of Mathematics. San Jose, CA, USA.
- Jun 2018 American Institute of Mathematics. San Jose, CA, USA.
- Mar-Apr 2018 University of Maryland. College Park, MD, USA.
- Dec 2016 Centre for Quantum Geometry of Moduli Spaces, Aarhus University. Aarhus, Denmark.
- Oct 2016 University of Edinburgh. Edinburgh, UK.
- Jun-Jul 2016 *Hausdorff Research Institute for Mathematics.* University of Bonn, Bonn. Germany.
- Jan 2016 *Mathematical Sciences Research Institute.* Berkeley, CA. USA.
- Fall 2015 *Simons Center for Geometry and Physics.* Stony Brook University, NY. USA.

- Jul 2013 *Simons Center for Geometry and Physics.* Stony Brook, NY. USA.
- May 2013 *NCTS-TPE.* Taipei, Taiwan.
- Dec 2012 *Bogomolov's Laboratory of Algebraic Geometry, HSE/Steklov Mathematical Institute.* Moscow, Russia.
- Dec 2011 *Bogomolov's Laboratory of Algebraic Geometry, HSE/Steklov Mathematical Institute.* Moscow, Russia.
- May 2011 *Moduli Spaces Program.* Cambridge, UK.
- Aug 2010 Indian Association for the Cultivation of Science. Kolkata, India.

Conferences Organised

- Apr 2022 AGGITATE Days 2022: Algebraic Groups and Geometric Invariant Theory at Essex. University of Essex, UK.
- Nov2021 EDGE Days 2021: Explicit K-stability And Moduli Problems. University of Edinburgh, UK.
- Dec 2020 EDGE Days 2020: Explicit K-stability And Moduli Problems. University of Edinburgh (online), UK.
- Apr 2020 AGGITATE: Algebraic Groups and Geometric Invariant Theory at Essex Days (postponed to 2022 due to CoVid-19 pandemic). University of Essex, UK.
- Jan 2020 CoDiMa Workshop - Tools for Discrete Computational Mathematics. University of Essex, UK.
- Jun 2013 London Mathematical Society Lecture Series by Prof Bogomolov. University of Edinburgh. UK.
- Apr 2013 Workshop: Characteristic p methods in Birational Geometry. Imperial College London. UK.
- Feb 2010 SMSTC Seminar Series 2009/2010. Scotland. UK.

Regular Seminars Organised

- 2020–22 MESS (Mathematics at Essex Seminar Series). University of Essex, UK.
- 2020–now ZAG (Zoom Algebraic Geometry) Seminar. Main Co-organiser and host. On-line/worldwide.
- May–Jun 2020 Essex Mathematics Seminar. University of Essex, UK.
- 2014–16 Algebraic Geometry Seminar. Johns Hopkins University. USA.
- 2013–14 JHU-UMD Complex Geometry Seminar. Maryland, USA.
- 2010–11 Geometry Club (student weekly seminar). University of Edinburgh. UK.

Teaching Experience

- 2022–2023 Group Theory. Commutative Algebra. (University of Essex, UK).
- 2021–2022 Group Theory. Commutative Algebra. (University of Essex, UK).
- 2020–2021 Linear Algebra. Group Theory. Graph Theory. (University of Essex, UK).
- 2019–2020 Numerical Methods and Computation. Group Theory. (University of Essex, UK).
- 2015–2016 Calculus II for Engineers. Complex Analysis. (Johns Hopkins University, USA).
- Summer 2015 Linear Algebra and Engineering Mathematics (Korea University, Korea)
- 2014–2015 Calculus II for Engineers. Differential Geometry. (Johns Hopkins University, USA).
- 2013–2014 Methods of Complex Analysis. Linear Algebra. (Johns Hopkins University, USA).
- 2009–2013 Summer introductory course to Mathematics. Occasional lecture covers and wide tutoring experience (University of Edinburgh, UK).

Outreach - Talks and Activities

- Jan 2022 *Careers and degrees in mathematical sciences*. Colchester County High School for Girls, Colchester, Essex, UK.
- Jul 2021 *Veni, codi, vinci: learn to send coded messages like Julius Caesar did while trying to decrypt your friends*. Anglo-European School, Ingatestone, Essex, UK.
- Nov 2020 *Veni, codi, vinci: learn to send coded messages like Julius Caesar did while trying to decrypt your friends*. Online activity for year 0 and year 1 mathematical sciences students. University of Essex, UK.

Outreach - Published Articles

1. **J. Martínez-García**, A Visit to Moscow. *LMS Newsletter* **416**, p. 22 (2012).
2. **J. Martínez-García**, Indian Summer. *LMS Newsletter* **400**, 25–26 (2012).

Administration Duties

- 2022–now Deputy Director of Research. University of Essex, UK.
- 2021–now MAGIC Network Departmental Link. University of Essex, UK.
- 2021–now Workload officer. University of Essex, UK.
- 2020–now Applicant Day Team. University of Essex, UK.
- 2021–22 Lead Departmental Adjudicator (academic offences). University of Essex, UK.
- 2020–21 Outreach Team. University of Essex, UK.
- 2021 Research Deputy Theme Leader of Algebra, Geometry and Discrete Mathematics. University of Essex, UK.
- 2019–2022 Department Library Link. University of Essex, UK.

Professional Service/Memberships

- Professional Membership London Mathematical Society (associate member 2009–2016, ordinary member 2019 onwards, 2022-2024 Departmental Representative at the University of Essex), American Mathematical Society (2013–2016). EPSRC Associate Peer Review College (2020 onwards), UKRI Early Career Researcher Forum (2020 onwards).
- Referee for *Invent. Math.*, Springer INdAM series, *Int. Math. Res. Not. IMRN*, *Sb. Math.*, *Proc. Edinb. Math. Soc.* (2), *Eur. J. Math.*, *Math. Nachr.*, *Mathematics*, *Int. J. Math.*
- Reviewer for *Mathematical Reviews*, *Zentralblatt Math.*

Other Skills

- Languages Spanish (Native), English (Proficiency. Qualifications: **Cambridge First Certificate in English**, **Cambridge Proficiency Certificate in English**), French(Intermediate), Italian (Basic), German (Basic).
- Programming SageMath, Maple, Matlab, Macaulay2, Mathematica, Object-Oriented Programming, Java, Python, C++, \LaTeX , UNIX API.