Martin de Borbon

Lecturer in Mathematics

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Education

- **PhD** **Imperial College London**
  Supervised by Simon Donaldson *Oct 2011 - Dec 2015*
  Date of award: 1 March 2016

Employment

- **Lecturer** **Loughborough University**
  Sep 2023 - now

- **Postdoc** **University of Texas at Dallas**
  Apr 2023 - Sep 2023

- **Postdoc** **King's College London**
  Sep 2020 - March 2023

- **Postdoc** **Université de Nantes**
  Sep 2019 - Aug 2020

- **Postdoc** **Aarhus University**
  Aug 2017 - Aug 2019

Articles and Preprints

- *Some models for bubbling of (log) Kähler-Einstein metrics* *arXiv preprint*
  (*Joint with C. Spotti*)

- *Dunkl connections on $\mathbf{C}^2$ and spherical metrics* **Ann. Fac. Sci. Toulouse**
  (*Joint with D. Panov*)

- *Parabolic bundles and spherical metrics* **Proceedings of the AMS**
  (*Joint with D. Panov*)

- *Polyhedral Kähler cone metrics on $\mathbf{C}^n$ singular at hyperplane arrangements* *arXiv preprint*
  (*Joint with D. Panov*)

- *Calabi-Yau metrics with cone singularities along* **Journal of the London Mathematical Society**
  intersecting complex lines: the unstable case
  (*Joint with G. Edwards*)

- *Calabi-Yau metrics with conical singularities along line arrangements* **Journal of Differential Geometry**
  (*Joint with C. Spotti*)

- *Toric Sasaki-Einstein metrics with conical singularities* **Selecta Mathematica**
  (*Joint with E. Legendre*)

- *Schauder estimates on products of cones* **Comentarii Mathematici Helvetici**
  (*Joint with G. Edwards*)

- *ALE Calabi-Yau metrics with conical singularities along a compact divisor* **IMRN**
  (*Joint with C. Spotti*)

- *Local models for conical Kähler-Einstein metrics* **Proceedings of the AMS**
  (*Joint with C. Spotti*)

- *Asymptotically conical Ricci-Flat Kähler metrics on $\mathbf{C}^2$* **Journal of the London Mathematical Society**
  with cone singularities along a complex curve

- *The Gibbons-Hawking ansatz over a wedge* **Journal of Geometry and Physics**

- *Kähler metrics with cone singularities along a divisor* **Annals of Global Analysis and Geometry**
  of bounded Ricci curvature

- *Singularities of plane complex curves and limits* **Complex Manifolds**
  of Kähler metrics with cone singularities. I: Tangent Cones

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Talks

- Song Sun's Complex Geometry Study Group, University of California, Berkeley, May 2023

- Informal Geometric Analysis Seminar, Northwestern University, May 2023

- Geometry Topology Dynamical Systems Seminar, University of Texas at Dallas, April 2023

- Spherical surfaces and related topics, Cortona, Italy, June 2022

- Special metrics on complex manifolds, University of Texas at Dallas, May 2022

- Geometry & Topology Seminar, online (2 talks), USTC (China), March 2022

- Geometry Seminar, King's College London, March 2022

- Shanghai Maths Seminar, online talk, July 2020

- Seminaire d' Analyse et Géométrie, IMJ-PRG, Paris, November 2019

- The 3rd Symposium in Geometry and Differential Equations, USTC, Hefei, China, May 2019

- Seminaire de Géométrie Complexe, Institut de Mathématiques de Toulouse, May 2019

- Seminaire d' Analyse et Géométrie, Ecole Normale Superiore, Paris, October 2018

- QGM Nielsen retreat, Sandbjerg Estate, Denmark, October 2018

- Informal Geometry Workshop in Paradiso, Italy, January 2018

- QGM Seminar, Aarhus University, Denmark, October 2017

- Holomorphic Foliations Seminar, IMPA, Rio de Janeiro, Brazil, January 2017

- CAPDE Seminar, Catholic University, Chile, October 2016

- Annual meeting of the Argentinian Mathematical Society, Bahia Blanca, Argentina, September 2016

- EGEO, Workshop on Differential Geometry, Cordoba, Argentina, August 2016

- Simons Center for Geometry and Physics, Stony Brook, USA, November 2015

- Geometric Analysis Seminar at the University of Warwick, United Kingdom, January 2015

Teaching experience

- *King's College London, United Kingdom* *2021-2022*

    - Metric Spaces & Topology 226 (covering a paternity leave) Undergraduate
    - Tutorials for Geometric Topology 327 Master

- *Aarhus University, Denmark* *2017-2018*

    - Riemannian geometry Master
    - Riemann surfaces (covering leave) Master
    - Kähler geometry PhD

- *Universidad Nacional de San Luis, Argentina* *2015-2017*

    - Numerical sequences and series Undergraduate
    - Representations of finite groups Undergraduate
    - Real analysis Undergraduate
    - Partial differential equations Undergraduate
    - Algebraic geometry Undergraduate

- *Universidad Nacional de Cuyo, Argentina* *2015-2017*

    - Differential geometry Undergraduate
    - Measure theory Undergraduate

- *IMPA, Brazil* *Jan-Feb 2010*

    - Vector Calculus Master
      (*Teaching assistant*)

Service

- Supervisor of Dylan Prod'homme-Bennett master thesis: *"Hodge Theory"*, King's College 2021-2022

- Co-supervisor of Jorge Bravo's master thesis: *"On Calabi-Yau conifolds"*, Aarhus University 2018-2019

- Co-organizer of the KCL Geometry Seminar, King's College 2022

- Co-organizer of the QGM Seminar, Aarhus University 2017-2019

- Referee reports *Communications in Pure and Applied Mathematics*
  Selecta Mathematica
  Forum of Mathematics, Sigma

- Reviewer for MathSciNet