Martin de Borbon

Research Associate in Pure Mathematics at King's College London
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Education

- **PhD**   **Imperial College London**
  Supervised by Simon Donaldson   *2011-2016*
  Funded by the European Research Council   Date of award: 1 March 2016

Employment

- **Post-doc**   **King's College London**
  Funded by EPSRC   *2020-2022*

- **Post-doc**   **Université de Nantes**
  Funded by Agence Nationale de la Recherche   *2019-2020*

- **Post-doc**   **Aarhus University**
  Funded by Aarhus University Research Foundation   *2017-2019*

- **Assistant Professor**   **Universidad Nacional de San Luis**
       2015-2017

Visiting positions

- **IMPA, Rio de Janeiro, Brazil**   *Jan-Feb. 2017*
- **SCGP, Stony Brook, United States**   *Nov-Dec. 2015*

Articles and Preprints

- *Dunkl connections on $\mathbf{C}^2$ and spherical metrics*   *arXiv preprint*
  (Joint with D. Panov)   *2022*

- *Parabolic bundles and spherical metrics*   **Proceedings of the AMS**
  (Joint with D. Panov)   *2022*

- *Polyhedral Kähler cone metrics on $\mathbf{C}^n$ singular at hyperplane arrangements*   *arXiv preprint*
  (Joint with D. Panov)   *2021*

- *Calabi-Yau metrics with cone singularities along*   **Journal of the London Mathematical Society**
  intersecting complex lines: the unstable case   *2021*
  (Joint with G. Edwards)

- *Calabi-Yau metrics with conical singularities along line arrangements*   **Journal of Differential Geometry**
  (Joint with C. Spotti)   *2021*

- *Toric Sasaki-Einstein metrics with conical singularities*   **Selecta Mathematica**
  (Joint with E. Legendre)   *2020*

- *Schauder estimates on products of cones*   **Comentarii Mathematici Helvetici**
  (Joint with G. Edwards)   *2020*

- *ALE Calabi-Yau metrics with conical singularities along a compact divisor*   **IMRN**
  (Joint with C. Spotti)   *2019*

- *Local models for conical Kähler-Einstein metrics*   **Proceedings of the AMS**
  (Joint with C. Spotti)   *2018*

- *Asymptotically conical Ricci-Flat Kähler metrics on $\mathbf{C}^2$*   **Journal of the London Mathematical Society**
  with cone singularities along a complex curve   *2017*

- *The Gibbons-Hawking ansatz over a wedge* **Journal of Geometry and Physics** *2017*

- *Kähler metrics with cone singularities along a divisor of bounded Ricci curvature* **Annals of Global Analysis and Geometry** *2017*

- *Singularities of plane complex curves and limits of Kähler metrics with cone singularities. I: Tangent Cones* **Complex Manifolds** *2017*

Talks

- 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