

Bruno Loureiro

✉ brloureiro@gmail.com

Website <https://brloureiro.github.io/>.

Currently

2019- **Postdoctoral researcher**, *Institut de Physique Théorique*.

Education

2014 – 2018 **PhD in Physics**, *University of Cambridge*, Advisor: A.M. García-García.

2013–2014 **MASt in Applied Mathematics**, *University of Cambridge*.

2011–2013 **BSc Mathematics and Physics**, *King's College London*.

2010–2011 **BSc Physics**, *University of Paris 7 – Denis Diderot*.

Publications

The spiked matrix model with generative priors, *B Aubin, B Loureiro, A Maillard, F Krzakala, L Zdeborová*, arXiv: 1905.12385 [math.ST].

Coherence effects in disordered geometries with a field-theory dual, *AM Garcia-Garcia, B Loureiro, T Andrade*, *J. High Energ. Phys.* (2018) 2018: 187.

Stability and Chaos in a generalised Sachdev-Ye-Kitaev model, *AM Garcia-Garcia, B Loureiro, A Romero-Bermudez and T Masaki*, *Phys. Rev. Lett.* (2018) - Accepted.

Transport in a gravity dual with a varying gravitational coupling constant, *AM Garcia-Garcia, B Loureiro and A Romero-Bermudez*, *Phys. Rev. D* 94 086007 (2016).

Marginal and irrelevant disorder in Einstein-Maxwell backgrounds, *AM Garcia-Garcia and B Loureiro*, *Phys. Rev. D* 93 065025 (2016).

Professional Experiences

2018 **BTG Pactual UK**, *Data Science Intern*.

Awards and Distinctions

2013-2017 CAPES/Cambridge Overseas Trust Science Without Borders Scholarship

2013 Nikon Prize for the best Physics Project, King's College London

2012 Prize for the best performance in Mathematics modules by a Joint Honours student, King's College London

2011 Ranked 2/209 in the general rank of the Natural Sciences Department, University of Paris 7 – Denis Diderot

2010 Selected among best projects in the Program of Scientific Vocation (PROVOC) FioCruz

Presentations and Participations

- 2019 Machine Learning for Quantum Many-Body Physics, KITP, Santa Barbara
- 2017 Short Visit, Brazilian Centre for Research in Physics (CBPF)
Presented seminar *All you wanted to know on the SYK model*.
- 2017 School on AdS/CMT Correspondence, ICTP-SAIFR
Short Talk *Disorder in AdS/CMT*
- 2017 Disorder in Condensed Matter and Black Holes, Lorentz Center, Leiden University
- 2016 Condensed Matter and Beyond, University of Oxford
- 2016 Quantum Information in String Theory and Many-body Systems ,Yukawa Institute for Theoretical Physics, Kyoto University
- 2015 Physics by the Lake, Cumberland Lodge
- 2015 Eurostrings, University of Cambridge
- 2015 Holographic Methods for Strongly Coupled Systems , Galileo Galilei Institute for Theoretical Physics
- 2013 Tomorrow's Mathematicians Today, University of Greenwich
- 2011 28th Brazilian Colloquium of Mathematics, IMPA
- 2010 VIII School of the Brazilian Centre for Research in Physics (CBPF)
- 2010 XV Week of Scientific Vocation
Presented project *Localization of the Oligopeptidase B2 of Leishmania Amazonensis*
- 2009 XXIV International Meeting of the Federation of Experimental Biology (FeSBE).
Presented project *Identification and Cellular Localization of the Oligopeptidase B2 of Leishmania Amazonensis*
- 2008 XIII Week of Scientific Vocation, FioCruz
Presented project *Cloning and Characterization of the Oligopeptidase B2 of Leishmania Amazonensis*

Past Projects

- 2014 Integrability and Self-Duality, *Advisor: Dr Maciej Dunajski*, University of Cambridge
- 2013 Non-gaussianities in the CMB, *Advisor: Dr Eugene Lim*, King's College London
- 2012 A study on the LSST filters, *Advisor: Dr Pierre Astier*, LPNHE Paris
- 2008-2010 Characterization of the Oligopeptidase B2 of Leishmania Amazonensis, *Advisor: Dr Herbert Guedes*, FioCruz

Numerical Skills

PYTHON (Intermediate), MATHEMATICA (Intermediate), MATLAB (Intermediate), L^AT_EX (Advanced).

Languages

English (Fluent), French (Fluent), Italian (Intermediate), Portuguese (Native).