GUILHERME RUIZ FERREIRA

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EDUCATION

PhD Particle Physics, Department of Physics and Astronomy, University of Manchester, UK **2021 – Current**
- Project name: "*Study of solar neutrinos with a large pixelated liquid Argon detector*". Supervisor: Stefan Söldner-Remdold

MSc Physics, Department of Physics and Astronomy, University College London, UK **2018 – 2020**
- Project name: "*Exotic Contributions to Double Beta Decay*". Supervisor: Frank Deppisch. Thesis available on request
- Attended part-time. Final result: Distinction (75.5%) — First year: 73.2%. Second year: 77.2%
- Best grades: Particle Physics - 89.75%, Relativistic Waves and Quantum Fields - 84.80%. Transcript available on request
- Gave many hours of tutoring to coursemates as per my stronger theoretical foundation

BSc Physics with major in Astronomy, Physics Institute, University of São Paulo, Brazil **2013 – 2017**
- Final grade: 7 out of 10. Course average is 6 out of 10. Transcript available on request
- Consisted of every module from the physics course plus the core modules from the astronomy course
- University admission exam (FUVEST, closest equivalent to A-levels): 1st phase (multiple choice) 63 out of 90 points (average 41). 2nd phase (written) 588.3 out of 1000 points (average 477.4). Report available on request

WORK EXPERIENCE

Business Analyst at Amazon Logistics Network Control, Amazon UK, London **2020 – 2021**
- Started off as an intern and had a position specially created for me to be hired full time
- Automation of reports and data processing through Python scripts, SQL and Excel
- Managing multiple stakeholders and customers, presenting data and promptly handling last minute requests
- Prioritisation of workload between long term strategic projects and short term tactical projects

BSc Final Term Work: *The Light Curve of η Carinae: Intrinsic brightening or dust destruction*? **2017**
- Programatically (Python) collected, organised and thoroughly analysed a large volume of data from numerous sources to determine the mechanism behind η Carinae's brightening in the last century. Supervisor: Augusto Damineli
- Originated the article "*Distinguishing circumstellar from stellar photometric variability in Eta Carinae*", published 14/01/2019 in the Monthly Notices of the Royal Astronomy Society (https://doi.org/10.1093/mnras/stz067)

Undergraduate Research with Scholarship, Physics Institute, University of São Paulo **2014 – 2016**
- Assisted the construction and tests of GEM type detectors related to the upgrade of the ALICE experiment at the LHC
- Testing the detectors required teamwork, responsibility and comprehensive statistical treatment of the data
- The results of this work have been presented at the 23rd (2015) and 24th (2016) International Symposium on Scientific Initiation of the University of São Paulo (SIICUSP)

EXTRACURRICULAR ACTIVITIES

Competitor, University College London Data Science Society Hackathon, UK **2019**
- Data science competition in partnership with American Express and Microsoft. Hosted at Microsoft Reactor London

First joint ICTP-Trieste/ICTP-SAIFR School on Particle Physics, IFT-UNESP, São Paulo **2018**
- Two week course given by six lecturers each from a different world-class university, i.e. Harvard and UCSB

Particle Physics Summer Course, Physics Institute, University of São Paulo **2017**
- One week introductory course

Volunteer, Institute of Physics' LGBT+ Collective at University of São Paulo, Brazil **2014 – 2016**
- A founding member in 2014
- As one of four direction officers from 2015 to 2016, planned and coordinated the creation of the collective's manifesto, managed social media and events, persuaded the institute's administration into implementing new policies for guaranteeing the wellbeing of transgender students, and held many joint meetings with the student's union officers

SKILLS AND INTERESTS

- **IT:** Intermediate knowledge of MS Office, VBA, SQL , Python, Java, HTML, CSS, LaTeX, Windows, Mac, Linux, Arduino and computer hardware. Nuclear physics instrumentation experience from undergraduate research
- **Languages:** Portuguese- Native; English - Fluent (TOEFL iBT 106); Italian - Learning; Spanish - Basic
- **Licenses:** Brazilian aeroplane private pilot license with 68 flight hours to date. British licensing in progress
- **Hobbies:** Avid international traveller with 16 countries to date; History lover and museum enthusiast; Playing piano since 6 years old; Solving puzzles; Playing games; Simulating piloting aeroplanes since 9 years old with flight simulation software