
Fannie Vaquero

MSci. Theoretical Physics | Problem Solver

fannievaquero@gmail.com | [GitHub : Penguin64100](#) | [My LinkedIn](#)

Languages : English | French

Skills

Python | Advanced Mathematics | Problem Solving | Data Analysis | LaTeX | NumPy | MATLAB | Excel | PowerPoint | Analytical Skills

Education

SEP 2019 - SEP 2023 | **MSci Physics with Theoretical Physics | King's College London**

SEP 2016 - JULY 2017 | **CPGE - Classe Préparatoire aux Grandes Ecoles | PCSI | Lycée René Cassin**

SEP 2013 - JUN 2016 | **French Baccalaureate | Lycée René Cassin**

Achievements

2023 First Class Honours 2023 Published novel research in bleeding-edge cosmology.

Employment and Projects

Physics and Maths tutoring | Work | Tutoring London | OCT 2019 - JUL 2023

Explaining complex topics in a simple and concise manner - requiring enhanced communication skills and adaptability.

Flavour Oscillations in the Reissner-Nordström spacetime | Thesis | MAY 2022

Research project on the oscillating nature of neutrinos around a charged black hole. Produced original work consistent with the existing literature.

Literature Review on Neutrino Oscillations in Schwarzschild spacetime | Report | APR 2020 - SEPT 2020

Social Secretary for the Womxn in Physics Society | Volunteering | SEP 2021 - MAY 2022

In charge of events for KCL Womxn in Physics. Part of the organisation of the annual conference inviting female physicists across the UK to highlight the importance of women in STEM.

Relevant Courses

Dark Matter & Dark Energy | King's College London

Strings, Branes and Quantum Gravity | King's College London

Supersymmetry and Conformal Field Theory | King's College London

Quantum Field Theory | King's College London

Standard Model and Beyond | King's College London

General Relativity and Cosmology | King's College London

Relevant School Projects

Dark Matter and Cosmic Structure Formation | DEC 2022

Project on cosmological perturbation theory, large scale structures and Primordial Black Holes as Dark Matter candidates.

Investigating the Dirac equation using Supersymmetric Quantum Mechanics | Thesis | APR 2022

SUSYQM of the 1+1 Dirac equation along with the derivation of the fractionalisation of charge in a topological soliton field.
