Dr David Ellis

Work Experience

Since Dec 2021 Analysis & Data Visualisation Officer Birmingham City Council.

Responsibilities:

- Preprocess, analyse and visualise health data (R, Python & SQL)
- Plan the team's work
- Develop relationships with stakeholders
- Present results

2018-2021 Physics PhD Researcher Georg-August-Universität Göttingen.

Responsibilities:

- Develop code to analyse simulation data (Python & C++)
- Writting peer-reviewed articles
- Co-authoring textbook with colleagues
- Present results at international conferences
- Tutor bachelor and master students
- 2015 Call Center Operative NHS Mental Health Administration
- 2014 Research Assistant Aircraft Research Association.

Responsibilities:

- Prepare model aircraft for windtunnel testing
- Report writing

Education

2018-2021 **Astrophysics PhD**, Georg-August-Universität Göttingen.

Passed: Magna Cum Laude

2014 – 2018 Theoretical Physics Masters Degree, University of Nottingham

Grade: First

2008-2013 **High School,** Bedford Academy.

Grades: AAA (A2 Physics, Maths, Chemistry), AB (AS Further Maths, Biology), 11 GCSEs.

Publications

Miniclusters Made Easy. In: Physical Review D. Vol. 103, No. 083525, 2021. arXiv:2006.08637

Structure of Axion Miniclusters. Submitted to publisher. arXiv:2204.13187

PhD Thesis: Axion Miniclusters: Formation, Structure and Observational Signatures eDiss

Introduction to Dark Matter. Contact signed: To be published next year by Princeton University Press.

Conferences

QUARKS 2020. Date: 26/06/2021. YouTube video.

Sixteenth Marcel Grossman Meeting (MG16). Date: 09/07/2021. YouTube video.

Cosmo21. Online Poster.

Projects

reg-vis - Python Module for visualising regression results.

ps-toolkit. Astrophysics python module for calculating the 1D-matter-power-spectrum using the Press-Schechter formalism.

How's My NHS? Website to present publicly available hospital performance data.

Programming Skills

Python **Expert** Excel **Intermediate**

R Advanced JavaScript Basic/Intermediate

HTML Intermediate C++ Basic LaTeX Intermediate PowerBI Basic

CSS Intermediate MATLAB Basic

Languages

SQL Intermediate

English **Native**

German B1