Rhys Shaw
M.Inst.P, MSc, BSc
Astrophysicist

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The online version is available at
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Astrophysics	++++	Mathematics	++++	Computational Physics	+++	Python	++++	Fortran	+++	JavaScript	+++
CSS	++	HTML	+++	React.js	+++	Node.js	+++	Neural Networks	+++	Machine Learning	+++

Hello, I am Rhys. I am a current PhD researcher at the University of Bristol. My research focuses on radio source analysis, using machine learning techniques. I have some experience with web-developement and I have been programming for more than 4 years.

Research Projects

PhD Research: Radio source multipicity and Machine Learning.

Inprogress ~ Due for completion 2026

Developing tools to create true associations between seperated radio sources using morphological, spectral and flux analysis of the source to feed into a neural network to learn characteristics of these associations. This will allow for quick processing of SKA and future radio observational data.

`Python` `Software Engineering` `Machine Learning` `Neural Networks` `Computational Astrophysics` `Radiowave Sources`

Project Files

MSc Project: Studing the effect of Substucture in Star Clusters.

2021

Simulating a planetary system orbiting solar mass stars within a fractally substructured cluster using a dual integrator approach, where the cluster was integrated with NBODY6++ and star positions interpolated for use by the planetary integrator.

`Python` `Linux` `Fortan` `Computational Physics` `Problem Solving`

Project Files

BSc Project: Examining Galaxy Cluster Properties from seperatly selected samples.

2020

Measuring galaxy cluster morphology, with a custom algorithm, and their luminosity-temperature scaling relation with observational data from the Chandra observatory was done to compare two samples of galaxy clusters.

`Python` `Data Analysis` `Linux` `Problem Solving`

Project Files

Education

Academic

2022-2026 | PhD Physics (Starting in September 2022) -- Research Area: Radiowave Astronomy and Machine Learning. University of Bristol
2020-2021 | MSc Data Intensive Astrophysics, Distinction. Cardiff University
2017-2020 | BSc Physics with Astrophysics (2.1). University of Bristol

Other

2022 | Zero to Mastery Web Development in 2022 online course. Udemy