

TOM GOFFREY

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EDUCATION AND RESEARCH

Ph.D Physics, University of Warwick October 2010 - September 2013 (Expected)

Thesis Title: “An Arbitrary Lagrangian Eulerian Code for Cylindrical MHD Problems”

During this project a new, parallel, two dimensional arbitrary Lagrangian Eulerian code for MHD was developed. The code is capable of shock capturing, and running in both Cartesian (xy) and cylindrical (rz) coordinates.

Research Collaboration with University of Leicester

Ongoing

Adaptation of Bayesian Algorithms for use on a GPU.

2:1 (Hons.) M.Sci in Physics, University of Bristol

October 2006 - June 2010

Thesis Title: “Determination of the Hubble Constant through X-ray and Sunyaev Zel’dovich Observations”

Final year project involved the processing of data from the Chandra X-ray Observatory, extracting profiles, and model fitting. This entire process was automated so it could be carried out for multiple data sets.

Summer Research Student, University of Nottingham

June 2009 - August 2009

Automating Shape Determination of Clusters of Galaxies.

CONFERENCE CONTRIBUTIONS

Centre for Inertial Fusion Studies Annual Meeting

February 2013

Ideal MHD method for ALE Codes (Talk)

FUSENET PhD Networking Event

October 2012

An Arbitrary Lagrangian Eulerian MHD Code (Poster)

IOP Computational Plasma Physics Conference

September 2012

Addition of Magnetic Field to ALE Codes (Talk)

Central Laser Facility Christmas Meeting

December 2011

An Arbitrary Lagrangian Eulerian Cylindrical MHD Code (Poster)

GSI-ISTCC Summer School

October 2011

A Cylindrical Arbitrary Lagrangian Eulerian MHD Code (Poster)

TEACHING EXPERIENCE

Second Year Laboratory Assessor

October 2010 - Present

Assessed laboratory notebooks of second year undergraduate students. The four week experiment forms part of compulsory laboratory training for physics students and involves the design and implementation of a PID control system using labview.

First Year Laboratory Demonstrator

May 2011 - Present

Demonstrated and assessed first year undergraduate electronics experiment. The two single day experiments form part of a core first year course for physics students and required students to construct and test logic gates in one experiment and to work with transistors and use them as amplifiers and switches in the other. Assessment is carried out via informal interviews which tests the students understanding of the work carried out.

First Year Maths Support Class

October 2011 - December 2012

First year physics students are required to take a maths test during the first week. My responsibilities started with invigilating the exam, then marking the exam, within 24 hours of the exam. Students who did not pass were required to attend support classes in which I provided assistance to students, and assessed further work.

Computing Practical Class Demonstrator

September 2012

This class was part of a course run by the Numerical Algorithms Group and the University of Warwick, aimed at early stage PhD students and post-doctoral researchers. I provided assistance during one of the practical session, which involved students programming in both Fortran and C.

OTHER EXPERIENCE

Outreach Volunteer

October 2010 - June 2012

I have volunteered in a number of outreach events both at the University of Warwick and visits to local schools. My roles varied depending on the events, but have included helping demonstrate experiments, speaking to students at career events, helping school children carry out investigations in the university laboratory and meeting children and their parents at prize evenings for local school children.

Computational Support

January 2012 - Present

Responsible for providing computational support to research group in the form of software assistance, and hardware fault finding and replacement where necessary.

Note Taker for Disability Services

October 2010 - Present

Disability services provide note takers for students who need such support. As a note taker I had to attend the lectures and take notes for the students as well as meeting and discussing students specific needs regarding their notes.

First Year Exam Marker

June 2011

I was part of a small group marking the first year undergraduate exam in electromagnetism.