Michael Hutcheon

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Current position

PhD student, University of Cambridge
Group: Theoretical condensed matter physics
Supervisor: Prof. Richard Needs   email: rn11@cam.ac.uk

Areas of research
Quantum monte carlo simulations of correlated systems. AIRSS; *ab initio* random structure searching.

Education

2013-2017   **University of Oxford** *MPhys, Masters in Physics (1st class)*
Masters dissertation: *Photon induced decoherence of a Transmon superconducting charge qubit*

Awards
Placed 8th/88 in cohort
2017 Mary Somerville prize for academic merit in 4th year finals
2016 Brazell Scholarship in Physics for academic merit in 3rd year finals
2015 Maria and Tina Bentivoglio Scholarship in Physics for academic merit in 2nd year finals
Departmental commendations for laboratory work in both 2nd and 3rd year

2009-2013   **Wootton upper school**

Qualifications
A-Levels: Maths A*, Physics A*, Perspectives on Science A*, Further Maths A, Chemistry A
AS-Levels: Applied Science A, Biology A
GCSEs: 4A*, 10A

Placements

2016   **Summer internship**, *STFC - Rutherford Appleton labs*
8 week placement. Designed, implemented and tested several algorithms for interaction vertex reconstruction intended for the proposed 2025 upgrade of the CMS detector at CERN.

2012   **Summer internship**, *Cranfield University*
Created a computer model of a Siemens SGT-8000H industrial gas turbine engine using the university's TURBOMATCH framework. Presented results at exhibition at Hertfordshire university.

Employment

2013-2016   **Farm Worker**, *Colben Ltd.*
Worked during the harvest at my family farm over each summer. Mainly transporting/monitoring moisture levels of grain and maintaining/repairing farm equipment.

Computing experience

Extensive experience programming in C++, C# and FORTRAN (~1000's of hours) both for scientific and non-scientific purposes. Proficient at full-stack web development; PHP, Javascript, HTML and CSS.

Interests

Programming
I have been building video games in my spare time for several years, mostly using C# and C++. Along the way I use a lot of 3D modelling software, game engines, photoshop etc.

Rowing
Captain of Somerville mens boatclub in my 2nd year at Oxford, president in my 3rd and social sec in my 4th. Rowed for Somerville mens 1st boat at Oxford and am rowing in Hughes Hall mens 1st boat in Cambridge. Organised and taken part in dozens of regattas and training camps.

Music
Countless hours spend recording and producing music of many genres; playing guitar, piano and drums. Examples can be found on my webpage.