

CURRICULUM VITAE

PERSONAL INFORMATION

Name Robert G. Cooper
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EDUCATION

- ▷ Date(s) Sep 2017 - present
- Qualification **PhD Mathematics**
- Institute Newcastle University
- Research Topic Convection and Dynamos in Planetary Interiors
- Supervisor(s) Dr C. Guervilly & Dr P. Bushby

- ▷ Date(s) Sep 2013 - Jun 2017
- Qualification **MMath Mathematics**
- Institute Newcastle University
- Grade Achieved 1st
- Dissertation Title Topological Complexity of Superfluid Turbulence
- Supervisor(s) Prof C.F. Barenghi
- Award(s) Awarded IMA Membership for Outstanding Academic Achievement

MEMBERSHIPS

- AMIMA Associate Member of the Institute of Mathematics and its Applications
- FRAS Fellow of the Royal Astronomical Society

PUBLICATIONS

- 2018 M. Mesgarnezhad, R.G. Cooper, A.W. Baggaley & C.F. Barenghi (2018): Helicity and Topology of a Small Region of Quantum Vorticity, *Fluid Dyn. Res.* (50)(1)

SKILLS

- MATLAB
- Fortran
- Linux
- Python
- High Performance Computing (HPC)
- Message Passing Interface (MPI)

Proficient in MATLAB with 4 years of experience
Basic knowledge from one undergraduate module
Intermediate linux user with 1 year of experience
Basic knowledge
Experience running numerical codes on high performance computers such as Newcastle University's Topsy (<http://topsy.ncl.ac.uk>) and Rocket (<http://www.ncl.ac.uk/itservice/research/hpc/>)
Experience using MPI for parallel codes, took part in MPI training provided online by <http://archer.ac.uk>

OTHER ACTIVITIES

- ▷ Date(s) 26-28th Mar 2018
- Activity Attended the **Fluid Mechanics of Planets and Stars** course at CISM, Udine

- ▷ Date(s) 9-11th Apr 2018
- Activity Attended and presented a **poster** at **Chasing Tornadoes**, Newcastle University

- ▷ Date(s) 26-28th Mar 2018
- Activity Attended and presented a **poster** at **UK MHD**, University of St Andrews

- ▷ Date(s) 11-15th Dec 2017
- Activity Attended **Computational MHD Workshop**, University of Leeds

- ▷ Date(s) 11-15th Sep 2017
- Activity Attended **STFC Introductory Solar System Plasma Physics Summer School**

- ▷ Date(s) 13-16th Sep 2016
- Activity Attended joint **MACRO (Multi-component Atomic Condensates and Rotational Dynamics)** conference and **JQC (Joint Quantum Centre) symposium**

- ▷ Date(s) May 2016 - Sep 2016
- Activity **Summer Project**
- Research Topic Computing Topological Properties of Superfluid Vortex Knots
- Supervisor(s) Prof C.F. Barenghi