Ross Knapman

rjknapman@gmail.com
www.rossknapman.com
rossknapman97
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Personal Information

Name	Ross John Knapman
Date of Birth	15th July 1997
Place of Birth	Northallerton, United Kingdom
Nationality	British
Last Updated	June 2020

Education

2019–Present **PhD**, *Johannes Gutenberg University Mainz*, Mainz, Germany.
Preliminary Title: Properties and Dynamics of Topological Magnetic Structures.
Primary Supervisor: Dr Karin Everschor-Sitte.
Secondary Supervisor: Prof Dr Jairo Sinova.

2015–2019 **Master of Physics**, *Durham University*, Durham, United Kingdom, *1st*.
Master's Project: Micromagnetic Simulations of Antiskyrmions.
Master's Project Supervisor: Prof Peter Hatton.

2013–2015 **A Levels**, *Paston Sixth Form College*, North Walsham, United Kingdom, *A*A*A*Aa*.
Physics, Chemistry, Mathematics, Further Mathematics, AS Biology, AS Critical Thinking.

2011–2013 **GCSEs**, *Broadland High School*, Hoveton, United Kingdom, *7A*, 3A*.

Experience

Work Experience

07/2018–08/2018 **Computational Condensed Matter Physics Internship**, *Durham University*, Durham, United Kingdom.
Undertook a computational project under the supervision of Prof Tom Lancaster, investigating the magnetic fields experienced by muons when embedded in skyrmion-like spin textures. The bulk of this was the development of a Python module in C++ to aid in quickly investigating various dipole moment structures.

06/2017–09/2017 **DAAD RISE Research Internship**, *German Aerospace Center (DLR) Oberpfaffenhofen*, Weßling nr. Munich, Germany.
A highly competitive research placement funded by the DAAD, working as part of a small team developing a lidar system to detect atmospheric turbulence from aircraft. The work involved ground-based measurements and data analysis. Supervised by Dr Jonas Herbst and Dr Patrick Vrancken.

06/2016–08/2016 **Galaxy Survey Visualisation Internship**, *University of Queensland*, Brisbane, Australia.
Production of virtual reality mobile apps to visualise galaxy redshift surveys. Worked primarily with C#, and participated in discussions with researchers in cosmology. Supervised by Dr Ed Macaulay.

07/2014 **Work Experience in Post-Processing**, *Met Office*, Exeter, United Kingdom.
Week-long work experience placement tasked with analysis of data using IDL, as well as teamworking activities.

10/2013–01/2014 **Work Experience**, *John Innes Centre*, Norwich, United Kingdom.
Undertook weekly half-day work experience sessions, assisting with experiments and discussing ongoing research with experts in plant and microbial science, and genomics.

Teaching

SS 2020 **Senior Assistant**, *Mathematical Methods*, Prof Dr Jairo Sinova and Dr Karin Everschor-Sitte.

WS 2019–20 **Tutor**, *Experimental Physics 5a*, Prof Randolf Pohl.

University Societies

2018–19 **Co-President**, *Durham University Physics Society*.

2018–19 **Secretary**, *Durham University Astronomical Society*.

2017–18 **Treasurer**, *Durham University Astronomical Society*.

2016–18 **Publicity Officer**, *Durham University Physics Society*.

2016–17 **Webmaster**, *Durham University Astronomical Society*.

Skills

Language Skills

English Native

German Conversational Knowledge *Self-Taught, With B2 Lessons Oct 2019 – Apr 2020*

French Elementary Knowledge *GCSE Grade A, Subsequent Self-Learning*

Computer Skills

Programming Python (good), Shell (good), Processing (good), C++ (fair), Java (basic), C# (basic).

OS Linux: Arch and Ubuntu (good), macOS (good), Windows (fair).

Software LaTeX (good), Vim (good), Microsoft Office (good), mumax^3 (good), OOMMF (fair), Inkscape (fair), Blender (fair).

Awards

Jul 2019 **Florence Nightingale Prize for Graphical Excellence**.
Awarded for excellence in the illustration of antiskyrmion resonance modes in my Level 4 project report.

Apr 2017 **DAAD RISE Scholarship**.
The Research Internships in Science and Engineering (RISE) scholarship awarded by the DAAD is a prestigious scholarship which funds research placements in Germany, including living expenses, a travel allowance, and a conference in Heidelberg.

Feb 2015 **Silver in 2015 UK Chemistry Olympiad**.

Nov 2014 **Silver in 2014 UKMT Senior Mathematical Challenge**.

Sep 2013 **Sir William Paston Scholarship**.
Scholarship awarded by The Paston College Foundation worth £500 in recognition of outstanding GCSE results.