

Thomas Harris

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Born: September 15, 1988
Citizenship: United Kingdom

Education

- Ph.D Mathematics, University of Southampton, 2015.
Thesis: *Binary complexes and algebraic K-theory*.
Supervisor: Dr. Bernhard Köck.
- M.Math Mathematics, University of Southampton, 2011.
Result: First class honours (finished first in year).
Received the School of Mathematics prize for best results in the year in 2010 and 2011.
- Secondary education, Gillingham School, 2007.
A grades at A-level in Maths, Further Maths, Physics, Religious Studies, and General Studies.
10 GCSEs, 7 at A* grade and 3 at A grade.

Experience

As a mathematics researcher I specialised in pure maths. I have experience working on projects alone and in collaboration with others.

Positions and scholarships

- Research Associate, Department of Mathematical Sciences, Durham University, Oct – Dec 2015.
- Mathematical Research Fellowship, Mathematical Sciences, University of Southampton, 2014 – 2015.
Competitive award available following submission of a research statement and oral presentation.
- EPSRC funded postgraduate student, Mathematical Sciences, University of Southampton, 2011 – 2014.
- Recipient of a Nuffield undergraduate research bursary, Summer 2009,
worked on the project *Polynomial identities in Riemann–Roch theory*.

Publications

- *Algebraic proofs of some fundamental theorems in algebraic K-theory*,
Homology, Homotopy and Applications **17** (2015), no. 1, 267–280.
- *Exterior power operations via binary complexes*,
(with Bernhard Köck and Lenny Taelman), in preparation.

Other skills and experience

Technical writing

I am skilled at writing technical accounts of complex research in a clear yet precise manner; my thesis committee made special mention of the clarity of my writing.

- I have an excellent command of the mathematical typesetting language \LaTeX and related tools (BibTeX, beamer, &c.).
- I am experienced at preparing mathematical documents of various lengths (from 1-2 page lecture notes up to Ph.D thesis-sized) for readers of various levels of mathematical background.

- From work on collaborative projects I also have experience proofreading and providing feedback on the mathematical writing of others.

Computing

Beyond the usual competencies with office suites, I have the following computer skills:

- Some exposure to the fundamentals of programming. I am able to write simple programs in Python and Haskell, and can use these to investigate mathematical problems or automate repetitive tasks. I also have some experience with HTML/CSS.
- I can use the popular version control system git to manage projects, and have some knowledge of open source development.
- I am familiar with the Linux operating system.

Communicating maths

- **Conferences.** I have given talks of up to an hour on my work at local, national, and international research meetings.
 - In the UK I have spoken at seminars and small meetings in Edinburgh, Southampton, Oxford, Warwick.
 - Further afield, I gave talks at the *11. Weihnachtsworkshop on geometry and number theory* (Karlsruhe, December 2013), and the *International conference on K-theory and related topics* (Beijing, August 2014).
- **Teaching.**
 - I ran tutorials for various undergraduate maths modules at Southampton during 2011 – 2015.
 - In 2014 – 2015 I taught Galois Theory to advanced A-level students at Winchester College.
 - I have also privately tutored several students in A-level maths.
- **Seminar organisation**
 - To broaden the horizons of maths students at Southampton, I set up the [Southampton Undergraduate Maths Seminar](#). I was the main organiser from 2013 – 2015 and contributed several talks.
 - I was the organiser of the Southampton postgraduate pure maths seminar in 2012 – 2013.

Miscellaneous

- I have been an associate member of the London Mathematical Society since March 2014.
- I wrote book reviews of *The Great Mathematical Problems* by Ian Stewart, and *How Not To Be Wrong* by Jordan Ellenberg for the *Newsletter of the London Mathematical Society*.
- I can read mathematical German at an intermediate level. I have a beginner's knowledge of spoken German.
- Outside of maths, my interests include running, hillwalking, wild swimming, and books.

References

- Dr. Bernhard Köck, b.koeck@soton.ac.uk
Reader in Mathematics, University of Southampton.
- Ms. Vesna Perisic, v.perisic@soton.ac.uk
Senior Teaching Fellow in Mathematics, University of Southampton.

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http://www.tkmharris.net/cv/thomasharris_cv.pdf