

Education

University and schooling

2012–2016 **PhD**, *Cambridge Centre for Analysis (CCA), University of Cambridge, Submitted September 2016, viva December 2016, final submission February 2017.*

My research was at the intersection of measure theory, differential geometry and partial differential equations. The CCA PhD is a four year interdisciplinary program spanning analysis of PDEs, stochastic analysis and numerical analysis.

2008–2012 **Mmath (Hons)**, *University of Bath, First.*

Degree average - 97.16%. Topics covered - Algebra, Analysis, Control Theory, Ordinary Differential Equations, Partial Differential Equations, Topology, Measure Theory, Probability, Fluid Dynamics, Numerical Analysis and Computer Programming.

2002–2008 **A-levels and GCSEs**, *Poole Grammar School.*

4 A-levels: Mathematics (A), Further Mathematics (A), Physics (A), German (A).
11 GCSEs: 10 A* grades including maths and english, 1 A grade.

Miscellaneous

2016–2017 **Data Science Specialisation**, *Coursera.*

Online data science specialisation covering topics including: R programming, exploratory data analysis, getting and cleaning data, statistical inference, regression models, practical machine learning.

2014 **Machine Learning**, *Coursera.*

Completed an online course in machine learning offered by Stanford University through the website 'Coursera'.

2014 **Programming in Modern C++**, *University Information Services Training, University of Cambridge.*

An introductory course to programming in C++ that largely followed Bjarne Stroustrup's book 'Programming: Principles and Practice using C++'.

Employment

Academic

2015–2016 **STEP Marker**, *Cambridge Assessment, Cambridge.*

Marked STEP II and III papers.

2013–2016 **Supervisor/Tutor**, *Trinity College, Cambridge.*

Supervisor for undergraduate students in Analysis.

2012–2013 **Contributor**, *Cambridge Mathematics Education Project.*

Helped review A-level mathematics education in the UK.

2011–2012 **Undergraduate Tutor**, *University of Bath.*

2010–2011 **Drop-in Tutor**, *University of Bath.*

Miscellaneous

- 2017–Present **Text book contributor**, *Pearson*.
Writing A-level textbooks for the new mathematics specification.
- 2011 **Finance Intern**, *UBS AG*, London.
- 2009 **Medical Lab Assistant**, *Bournemouth Hospital*.

Awards and Grants

- 2016 Invited as 'Program Associate' for Differential Geometry program at MSRI in Berkeley
- 2016 Travel grants from Trinity College's Rouse Ball and Eddington research fund, and the Heilbronn fund to support visit to MSRI.
- 2014 Travel grant from Trinity College's Rouse Ball and Eddington research fund.
- 2013 Travel grant from IAS to attend PCMI summer school on geometric analysis.
- 2012–2016 Full studentship and stipend from EPSRC to undertake PhD studies at the Cambridge Centre for Analysis.
- 2012 IMA Prize - Best overall performance (Mmath) - University of Bath.
- 2012 F H Jackson Prize - Best performance in pure mathematics - University of Bath.
- 2010 Nuffield Undergraduate Research Bursary to fund a summer project in fluid mechanics under the supervision of Dr Jonathan Evans at the University of Bath.
- 2010 Harold Davenport Prize - Best performance in pure mathematics by a second year student.

Talks given

Original work

- Mar 2016 **'On short time existence of Lagrangian mean curvature flow'**, *Oxbridge PDE conference*.
Presentation of completed paper at the annual PDE conference joint between Oxford and Cambridge
- Nov 2014 **'On short time existence of Lagrangian mean curvature flow'**, *UCL Geometric Analysis Reading Seminar*.
Presentation of recent work at the UCL geometric analysis reading seminar.

Expository

- April 2015 **'Mean curvature flow'**, *CCA/MASDOC Seminar*.
- Feb 2015 **'Tangent cones to two dimensional area-minimising currents are unique'**, *UCL Geometric Analysis Reading Seminar*.
- Jun 2014 **'Local regularity in mean curvature flow'**, *Cambridge Analyst's Knowledge Exchange*.
- Mar 2014 **'Singularity formation in mean curvature flow'**, *CCA/MASDOC Seminar*.
- Jan/Feb 2014 **'A local regularity theorem for mean curvature flow'**, *UCL Geometric Analysis Reading Seminar*.

Conferences Attended

- Jul 2016 **Calculus of Variations**, *MFO*, Oberwolfach.
- May 2016 **Geometric Flows in Riemannian and Complex Geometry**, *MSRI*, Berkeley.
- Mar 2016 **Kähler Geometry, Einstein Metrics and Generalisations**, *MSRI*, Berkeley.
- Mar 2016 **Oxbridge PDE days**, *University of Cambridge*, Cambridge.
- Jul 2015 **Advances in geometric analysis**, *University of Warwick*, Coventry.
- Jun 2015 **Conference on the occasion of Michael Struwe's 60th birthday**, *ETH Zürich*, Zürich.
- Apr 2015 **CCA/MASDOC conference**, *University of Warwick*, Coventry.
- Apr 2015 **Oxbridge PDE days**, *University of Oxford*, Oxford.
- Mar 2015 **Flowers and Friends**, *Goethe Universität*, Frankfurt.
- Dec 2014 **Uniqueness in Analysis and Geometry**, *MIT*, Cambridge MA.
- Jul 2014 **Lisbon Geometric Analysis Conference**, *Instituto Superior Técnico*, Lisbon.
- Jun 2014 **ERC School on Geometric Evolution Problems**, *Scuola Normale Superiore de Pisa*, Pisa.
- Mar 2014 **CCA/MASDOC conference**, *University of Cambridge*, Cambridge.
- Mar 2014 **Workshop on Geometric PDE**, *University of Oxford*, Oxford.
- Dec 2013 **Warwick-Imperial-Cambridge Junior seminar**, *University of Warwick*, Coventry.
- Jul 2013 **Graduate Summer School in Geometric Analysis**, *PCMI*, Park City UT.

Computer Skills

- Advanced \LaTeX
- Intermediate C, C++, Python, R
- Basic HTML, CSS, MATLAB

Publications and Preprints

Tom Begley and Kim Moore. On short time existence of lagrangian mean curvature flow. *Mathematische Annalen*, 367(3):1473–1515, 2017.