

TIMOTHY CHARLES BURNES

PERSONAL DETAILS

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Date and place of birth: 21st February 1979, Southport, Merseyside

EMPLOYMENT

- 08/2018 - Reader in Pure Mathematics, University of Bristol
08/2018 - Associate Chair, Heilbronn Institute for Mathematical Research
- 08/2014 - 07/2018 Senior Lecturer in Pure Mathematics, University of Bristol
08/2013 - 07/2014 Lecturer in Pure Mathematics, University of Bristol
10/2008 - 07/2013 Lecturer in Pure Mathematics, University of Southampton
- 10/2007 - 09/2008 Visiting Research Fellow:
– Ecole Polytechnique Fédérale de Lausanne, Switzerland
– University of Western Australia, Perth, Australia
– California Institute of Technology, Pasadena, USA
– University of Auckland, New Zealand
- 10/2006 - 09/2007 Lady Davis Postdoctoral Fellow, Einstein Institute of Mathematics,
The Hebrew University of Jerusalem, Israel
- 10/2004 - 09/2007 Junior Research Fellow, St John's College, University of Oxford

UNIVERSITY EDUCATION

- 10/2001 - 09/2004 PhD Mathematics, Imperial College London
(Supervisor: Professor Martin W. Liebeck)
- 10/2000 - 09/2001 MSc Mathematics (Distinction), University of Warwick
- 10/1997 - 06/2000 BSc Mathematics, University of Warwick
First Class Honours (Academic Prize)

RESEARCH VISITS

- 02/2020 - 06/2020 Isaac Newton Institute, Cambridge (4 months)
- 04/2019 - 05/2019 Southern University of Science and Technology, Shenzhen, China
- 03/2019 Ecole Polytechnique Fédérale de Lausanne, Switzerland
- 05/2017 Ecole Polytechnique Fédérale de Lausanne, Switzerland
- 07/2016 - 09/2016 Ecole Polytechnique Fédérale de Lausanne, Switzerland (2 months)
- 06/2015 University of Auckland, New Zealand (3 weeks)
- 03/2015 Ecole Polytechnique Fédérale de Lausanne, Switzerland
- 01/2015 Ecole Polytechnique Fédérale de Lausanne, Switzerland
- 11/2014 Universität Bielefeld, Germany
- 06/2014 Ecole Polytechnique Fédérale de Lausanne, Switzerland (2 weeks)
- 02/2014 Ecole Polytechnique Fédérale de Lausanne, Switzerland

06/2013	Ecole Polytechnique Fédérale de Lausanne, Switzerland (2 weeks)
03/2013	University of Western Australia, Perth, Australia (2 weeks)
09/2012	The Ohio State University, Columbus, USA (2 weeks)
02/2012	Ecole Polytechnique Fédérale de Lausanne, Switzerland
12/2011	Università degli Studi di Padova, Italy
09/2011	University of Western Australia, Perth, Australia (3 weeks)
11/2010	Ecole Polytechnique Fédérale de Lausanne, Switzerland
03/2010	Ecole Polytechnique Fédérale de Lausanne, Switzerland
09/2009	ETH Zurich, Switzerland
03/2009 - 04/2009	Isaac Newton Institute, Cambridge (1 month)
11/2008	University of Helsinki, Finland
07/2008	University of Canterbury, New Zealand (2 weeks)
05/2008 - 09/2008	University of Auckland, New Zealand (4 months)
04/2008	California Institute of Technology, Pasadena, USA (1 month)
01/2008 - 03/2008	University of Western Australia, Perth, Australia (3 months)
10/2007 - 12/2007	Ecole Polytechnique Fédérale de Lausanne, Switzerland (3 months)
05/2005 - 06/2005	Ecole Polytechnique Fédérale de Lausanne, Switzerland (2 months)

PUBLICATIONS: BOOKS AND MONOGRAPHS

3. T.C. Burness and M. Giudici, *Classical groups, derangements and primes*, Australian Mathematical Society Lecture Series, vol. 25, Cambridge University Press, 2016, xviii+346, ISBN: 978-1-1076-2944-8
2. T.C. Burness, S. Ghandour and D.M. Testerman, *Irreducible geometric subgroups of classical algebraic groups*, *Memoirs of the American Mathematical Society* **239** (2016), no. 1130, vi+88, ISBN: 978-1-4704-1494-8
1. T.C. Burness, S. Ghandour, C. Marion and D.M. Testerman, *Irreducible almost simple subgroups of classical algebraic groups*, *Memoirs of the American Mathematical Society* **236** (2015), no. 1114, vi+110, ISBN: 978-1-4704-1046-9

PUBLICATIONS: RESEARCH ARTICLES

44. T.C. Burness and C.H. Li, *On solvable factors of almost simple groups*, submitted (29 pages; arxiv:1910.00644)
43. T.C. Burness, S. Gerhardt and R.M. Guralnick, *Topological generation of exceptional algebraic groups*, submitted (38 pages; arxiv:1909.02752)
42. T.C. Burness, M. Garonzi and A. Lucchini, *On the minimal dimension of a finite simple group* (with an appendix by T.C. Burness and R.M. Guralnick), *Journal of Combinatorial Theory, Series A*, to appear (24 pages)
41. T.C. Burness and S. Harper, *Finite groups, 2-generation and the uniform domination number*, *Israel Journal of Mathematics*, to appear (60 pages)
40. T.C. Burness, M.W. Liebeck and A. Shalev, *The length and depth of compact Lie groups*, *Mathematische Zeitschrift*, to appear (17 pages)
39. T.C. Burness and M. Giudici, *On the Saxl graph of a permutation group*, *Mathematical Proceedings of the Cambridge Philosophical Society*, to appear (27 pages)
38. T.C. Burness, M.W. Liebeck and A. Shalev, *On the length and depth of finite groups* (with an appendix by D.R. Heath-Brown), *Proceedings of the London Mathematical Society* **119** (2019), 1464–1492.
37. T.C. Burness, *Simple groups, generation and probabilistic methods*, *Groups St Andrews 2017 in Birmingham*, London Mathematical Society Lecture Note Series, 455, Cambridge University Press, pp. 200–229, 2019.

36. T.C. Burness and D.M. Testerman, *Irreducible subgroups of simple algebraic groups – a survey*, Groups St Andrews 2017 in Birmingham, London Mathematical Society Lecture Note Series, 455, Cambridge University Press, pp. 230–260, 2019.
35. T.C. Burness and D.M. Testerman, *A_1 -type subgroups containing regular unipotent elements*, Forum of Mathematics, Sigma **7** (2019), e12, 61 pp.
34. T.C. Burness and S. Harper, *On the uniform domination number of a finite simple group*, Transactions of the American Mathematical Society **372** (2019), 545–583.
33. T.C. Burness, M.W. Liebeck and A. Shalev, *The length and depth of algebraic groups*, Mathematische Zeitschrift **291** (2019), 741–760.
32. T.C. Burness, *On base sizes for almost simple primitive groups*, Journal of Algebra **516** (2018), 38–74.
31. T.C. Burness and A.R. Thomas, *On the involution fixity of exceptional groups of Lie type*, International Journal of Algebra and Computation **28** (2018), 411–466.
30. T.C. Burness and M. Giudici, *Locally elusive classical groups*, Israel Journal of Mathematics **225** (2018), 343–402.
29. T.C. Burness, *Simple groups, fixed point ratios and applications*, in Local Representation Theory and Simple Groups (eds. R. Kessar, G. Malle and D. Testerman), EMS Series of Lectures in Mathematics, pp. 267–322, 2018.
28. T.C. Burness, M.W. Liebeck and A. Shalev, *The depth of a finite simple group*, Proceedings of the American Mathematical Society **146** (2018), 2343–2358.
27. T.C. Burness, M.W. Liebeck and A. Shalev, *Generation of second maximal subgroups and the existence of special primes*, Forum of Mathematics, Sigma **5** (2017), e25, 41 pp.
26. T.C. Burness, R.M. Guralnick and J. Saxl, *On base sizes for algebraic groups*, Journal of the European Mathematical Society (JEMS) **19** (2017), 2269–2341.
25. T.C. Burness and M. Giudici, *Permutation groups and derangements of odd prime order*, Journal of Combinatorial Theory, Series A **151** (2017), 102–130.
24. T.C. Burness, C. Marion and D.M. Testerman, *On irreducible subgroups of simple algebraic groups*, Mathematische Annalen **367** (2017), 1259–1309.
23. T.C. Burness and H.P. Tong-Viet, *Primitive permutation groups and derangements of prime power order*, Manuscripta Mathematica **150** (2016), 255–291.
22. T.C. Burness and Á. Seress, *On Pyber’s base size conjecture*, Transactions of the American Mathematical Society **367** (2015), 5633–5651.
21. T.C. Burness and H.P. Tong-Viet, *Derangements in primitive permutation groups, with an application to character theory*, Quarterly Journal of Mathematics **66** (2015), 63–96.
20. T.C. Burness and E. Covato, *On the prime graph of simple groups*, Bulletin of the Australian Mathematical Society **91** (2015), 227–240.
19. S.H. Alavi and T.C. Burness, *Large subgroups of simple groups*, Journal of Algebra **421** (2015), 187–233.
18. T.C. Burness, R.M. Guralnick and J. Saxl, *Base sizes for \mathcal{S} -actions of finite classical groups*, Israel Journal of Mathematics **199** (2014), 711–756.
17. T.C. Burness, M.W. Liebeck and A. Shalev, *Generation and random generation: from simple groups to maximal subgroups*, Advances in Mathematics **248** (2013), 59–95.
16. T.C. Burness and E. Crestani, *On the generating graph of direct powers of a simple group*, Journal of Algebraic Combinatorics **38** (2013), 329–350.
15. T.C. Burness and S. Guest, *On the uniform spread of almost simple linear groups*, Nagoya Mathematical Journal **209** (2013), 35–109.
14. T.C. Burness, C.E. Praeger and Á. Seress, *Extremely primitive sporadic and alternating groups*, Bulletin of the London Mathematical Society **44** (2012), 1147–1154.

13. T.C. Burness, C.E. Praeger and Á. Seress, *Extremely primitive classical groups*, Journal of Pure and Applied Algebra **216** (2012), 1580–1610.
12. T.C. Burness, M. Giudici and R.A. Wilson, *Prime order derangements in primitive permutation groups*, Journal of Algebra **341** (2011), 158–178.
11. T.C. Burness, R.M. Guralnick and J. Saxl, *On base sizes for symmetric groups*, Bulletin of the London Mathematical Society **43** (2011), 386–391.
10. T.C. Burness, E.A. O’Brien and R.A. Wilson, *Base sizes for sporadic simple groups*, Israel Journal of Mathematics **177** (2010), 307–334.
9. T.C. Burness and S.D. Scott, *On the number of prime order subgroups of finite groups*, Journal of the Australian Mathematical Society **87** (2009), 329–357.
8. T.C. Burness, M.W. Liebeck and A. Shalev, *Base sizes for simple groups and a conjecture of Cameron*, Proceedings of the London Mathematical Society, **98** (2009), 116–162
7. T.C. Burness, *On base sizes for actions of finite classical groups*, Journal of the London Mathematical Society, **75** (2007), 545–562
6. T.C. Burness, *Fixed point ratios in actions of finite classical groups*, IV, Journal of Algebra, **314** (2007), 749–788
5. T.C. Burness, *Fixed point ratios in actions of finite classical groups*, III, Journal of Algebra, **314** (2007), 693–748
4. T.C. Burness, *Fixed point ratios in actions of finite classical groups*, II, Journal of Algebra, **309** (2007), 80–138
3. T.C. Burness, *Fixed point ratios in actions of finite classical groups*, I, Journal of Algebra, **309** (2007), 69–79
2. T.C. Burness, *Fixed point spaces in actions of classical algebraic groups*, Journal of Group Theory, **7** (2004), 311–346
1. T.C. Burness, *Fixed point spaces in primitive actions of simple algebraic groups*, Journal of Algebra, **265** (2003), 744–771

THESES

2. *Fixed point spaces in actions of finite and algebraic simple groups*, PhD thesis, Imperial College London (2005)
1. *Reductive algebraic groups and Tits systems*, MSc thesis, University of Warwick (2001)

MISCELLANEOUS WRITINGS

3. Book review (*Mathematical Reviews*, American Mathematical Society): *Linear Algebraic Groups and Finite Groups of Lie Type*, G. Malle and D.M. Testerman, Cambridge Studies in Advanced Mathematics **133**, CUP, 2011.
2. Book review (London Mathematical Society Newsletter, Issue 393, June 2010): *Dude, can you count?*, C. Constanda, Springer, 2010.
1. *Base sizes for simple groups and a conjecture of Cameron*, Oberwolfach Reports 37/2007, 2183–2186.

AWARDS AND DISTINCTIONS

10/2017	Shortlisted for the Mahoney-Neumann-Room Prize of the Australian Mathematical Society
08/2017	Plenary speaker, Groups St Andrews, University of Birmingham
06/2015	Kalman Visiting Fellowship, University of Auckland, New Zealand

05/2013	Excellence in Teaching Award (Maths), University of Southampton
10/2006 - 09/2007	Lady Davis Fellowship, The Hebrew University of Jerusalem, Israel
10/2004 - 09/2007	Junior Research Fellowship, St John's College, University of Oxford
07/2000	Academic Prize, University of Warwick

GRANTS

02/2012 - 08/2013	EPSRC grant (PI) £127,968
09/2011	Royal Society International Travel Grant (PI) £1,500
02/2010	London Mathematical Society Small Collaborative Grant (PI) £500
08/2018	Funding for conference <i>Simple groups: New Perspectives and Applications</i> , University of Bristol
10/2014 -	Funding for one-day meetings <i>Groups and their applications</i> , joint with Birkbeck, Birmingham and Manchester
07/2015	Funding for conference <i>Simple groups, representations and related topics</i> , University of Cambridge
04/2006	Funding for one-day meeting <i>Reductive groups and their representations</i> , University of Oxford

CONFERENCE ORGANISATION

05/2019	LMS Triangle meeting: <i>Groups and their applications</i> , University of Bristol
08/2018	<i>Simple Groups: New Perspectives and Applications</i> , University of Bristol
02/2018	LMS Triangle meeting: <i>Groups and their applications</i> , University of Bristol
05/2017	LMS Triangle meeting: <i>Groups and their applications</i> , University of Bristol
01/2017	<i>Permutation groups and related topics</i> , Universität Bielefeld, Germany
06/2016	LMS Triangle meeting: <i>Groups and their applications</i> , University of Bristol
05/2016	<i>Branching problems for reductive groups</i> , Institut Mittag-Leffler, Stockholm
03/2016	<i>British Mathematical Colloquium</i> , University of Bristol (Algebra Workshop)
07/2015	<i>Simple groups, representations and related topics</i> , University of Cambridge
05/2015	LMS Triangle meeting: <i>Groups and their applications</i> , University of Bristol
04/2006	<i>Reductive groups and their representations</i> , University of Oxford

CONFERENCES AND INVITED SEMINARS

06/2020	Invited speaker, conference on "Graphs and Groups, Geometries and GAP", Rogla, Slovenia
06/2020	Invited speaker, conference on "Simple Groups, Representations and Applications", Isaac Newton Institute, Cambridge
01/2020	Algebra Seminar, University of York
08/2019	Invited speaker "Workshop on Groups and Geometries", BIRS, Banff, Canada
04/2019	Algebra Seminar, SUSTech, Shenzhen, China
03/2019	Algebra Seminar, University of Manchester
03/2019	Group Theory Seminar, EPFL, Switzerland
02/2019	Pure Mathematics Seminar, University of South Wales
02/2019	Algebra Seminar, University of Warwick
09/2018	Invited speaker, conference on "Groups, Geometry and Representations", Oxford
06/2018	Invited speaker, British Mathematical Colloquium, University of St Andrews
05/2018	Algebra and Geometry seminar, University of Bristol
03/2018	Algebra and Representation Theory Seminar, University of Cambridge
10/2017	Invited speaker, conference on "Topics on Groups and their Representations", Palazzo Feltrinelli, Lake Garda

- 08/2017 Invited speaker, “Groups St Andrews”, University of Birmingham
- 07/2017 Invited speaker, conference on “Groups and Combinatorics”, Sobolev Institute, Novosibirsk
- 03/2017 Algebra Seminar, University of Aberdeen
- 02/2017 Pure Mathematics Colloquium, University of Southampton
- 12/2016 London Algebra Colloquium, City University of London
- 11/2016 Invited participant, “Workshop on Permutation Groups”, BIRS, Banff, Canada
- 09/2016 Invited lecturer (5 lectures), “Workshop on Some Problems in the Theory of Finite Simple Groups”, Bernoulli Center, EPFL, Switzerland
- 07/2016 Invited speaker, conference on “Algebraic Combinatorics and Group Actions”, Herstmonceux Castle, Sussex
- 06/2016 Invited plenary speaker, Postgraduate Group Theory Conference, Imperial College
- 05/2016 Workshop on “Branching Problems for Reductive Groups”, Institut Mittag-Leffler, Stockholm
- 11/2015 Algebra Seminar, University of Birmingham
- 07/2015 Conference on “Simple groups, representations and related topics”, University of Cambridge
- 07/2015 Conference on “Finite simple groups and related topics”, University of Warwick
- 06/2015 Algebra and Combinatorics Seminar, University of Auckland, New Zealand (two seminars)
- 05/2015 Algebra Seminar, University of Oxford
- 05/2015 Invited participant “Workshop on Groups and Geometries”, BIRS, Banff, Canada
- 03/2015 Group Theory Seminar, EPFL, Switzerland
- 03/2015 Pure Mathematics Colloquium, University of St Andrews
- 02/2015 Algebra and Geometry Seminar, University of Bristol
- 11/2014 Algebra Seminar, Universität Bielefeld, Germany
- 11/2014 Invited speaker, Algebra Meeting, Université catholique de Louvain, Belgium
- 06/2014 Invited lecturer (5 lectures), Young Algebraists’ Conference, EPFL, Switzerland
- 04/2014 Invited speaker, British Mathematical Colloquium, Queen Mary (University of London)
- 10/2013 Algebra Seminar, University of Cambridge
- 10/2013 Pure Mathematics Seminar, Lancaster University
- 10/2013 Algebra Seminar, University of York
- 09/2013 Conference on “Finite groups and related topics”, University of Cambridge
- 07/2013 Invited speaker, “Workshop on Permutation Groups”, BIRS, Banff, Canada
- 07/2013 Invited speaker, “International Conference on Group Theory”, Novosibirsk, Russia
- 05/2013 Pure Mathematics Seminar, University of Exeter
- 03/2013 Groups and Combinatorics Seminar, University of Western Australia
- 02/2013 Algebra and Geometry Seminar, University of Bristol
- 02/2013 Second Biennial International Group Theory Conference, Istanbul, Turkey
- 09/2012 Combinatorics Seminar, The Ohio State University, USA
- 09/2012 Invited speaker, “Workshop on Groups and Geometries”, BIRS, Banff, Canada
- 05/2012 Pure Mathematics Seminar, Royal Holloway (University of London)
- 02/2012 London Algebra Colloquium, Imperial College London
- 01/2012 Algebra Seminar, University of Birmingham
- 12/2011 Algebra Seminar, University of Padua, Italy
- 09/2011 Groups and Combinatorics Seminar, University of Western Australia
- 06/2011 Algebra Seminar, University of Cambridge
- 11/2010 Group Theory Seminar, EPFL, Switzerland
- 03/2010 Group Theory Seminar, EPFL, Switzerland
- 12/2009 Algebra and Geometry Seminar, University of Bristol
- 11/2009 Algebra Seminar, University of Oxford
- 09/2009 Algebra and Topology Seminar, ETH Zurich, Switzerland
- 07/2009 Invited participant, “Workshop on Permutation groups”, BIRS, Banff, Canada
- 06/2009 Conference on “Character theory of finite groups”, University of Valencia, Spain
- 04/2009 Invited speaker, “Programme on Algebraic Lie theory”, Isaac Newton Institute, Cambridge
- 01/2009 Algebra Seminar, University of Birmingham
- 12/2008 Invited speaker, “Workshop on Infinite Groups and Related Topics”, University of Edinburgh
- 11/2008 Pure Mathematics Seminar, University of York
- 11/2008 Finnish Mathematical Society Colloquium, University of Helsinki, Finland
- 10/2008 Pure Mathematics Colloquium, University of Southampton

10/2008	London Algebra Colloquium, Queen Mary, University of London
09/2008	Algebra Seminar, University of Auckland, New Zealand
07/2008	Mathematics Colloquium, University of Canterbury, Christchurch, New Zealand
06/2008	Algebra and Combinatorics Seminar, University of Auckland, New Zealand
04/2008	Algebra Seminar, University of Southern California, Los Angeles, USA
03/2008	“George Glauberman Conference”, University of Chicago, USA
03/2008	Pure Mathematics Seminar, University of Western Australia, Australia
01/2008	Groups and Combinatorics Seminar, University of Western Australia, Australia
01/2008	Conference on “Finite groups and representations”, Kaikoura, New Zealand
12/2007	“Nikolaus Conference”, RWTH Aachen, Germany
11/2007	Algebra and Topology Seminar, ETH Zurich, Switzerland
11/2007	Invited speaker (3 lectures), Group Theory Seminar, EPFL, Switzerland
08/2007	Invited speaker, “Workshop on Permutation groups”, Oberwolfach, Germany
12/2006	Amitsur Algebra Seminar, The Hebrew University of Jerusalem, Israel
09/2006	Algebra Seminar, University of Birmingham
05/2006	Conference on “Asymptotic group theory”, The Hebrew University of Jerusalem, Israel
02/2006	Algebra Seminar, University of Cambridge
01/2006	Pure Mathematics Seminar, Royal Holloway (University of London)
11/2004	Algebra Seminar, University of Oxford
11/2004	London Algebra Colloquium, Queen Mary, University of London
03/2004	Conference on “Groups and Representations”, University of Oregon, USA

TEACHING

Supervising experience

10/2019 -	PhD student: Emily Hall
10/2015 - 05/2019	PhD student: Scott Harper Thesis: <i>On the spread of classical groups</i>
10/2013 - 05/2018	PhD student: Elisa Covato Thesis: <i>The involution fixity of simple groups</i>
10/2010 - 03/2014	PhD student: Raffaele Rainone (University of Southampton) Thesis: <i>Geometric actions of classical algebraic groups</i>
05/2017 - 09/2017	MSc student A. Bartlett
10/2019 - 05/2020	MSci project students A. Dabson, J. Goodier and G. Mason
10/2018 - 05/2019	MSci project students J. Holding and M.-L. Roberts
10/2017 - 05/2018	MSci project students S. Coles, J. Finlay and E. Newman
10/2016 - 05/2017	MSci project students T. Brown, M. Davies and J. Newman
10/2015 - 05/2016	MSci project students S. Clarke, Z. Kwaw-Swanzy and B. Stiles
10/2014 - 05/2015	MSci project students J. Chakravarty and P. Morris
10/2014 - 01/2015	3rd year project student P. Dozio
10/2013 - 05/2014	MSci project students E. Harrison, A. Paraschivescu and P. Woodhead
02/2012 - 07/2013	Postdoctoral research assistant Dr S. Guest
10/2012 - 06/2013	MMath project student B. Kotecha
02/2013 - 06/2013	3rd year project students E. Cernic and P. Lacey
02/2012 - 08/2012	Postdoctoral research assistant Dr E. Crestani
10/2011 - 06/2012	MMath project student I. Schwabrow
10/2010 - 06/2011	MMath project students P. Jackson and D. Matthews
10/2009 - 06/2010	MMath project students A. Poulton and M. Thomas

02/2009 - 06/2009 3rd year project students K. Boyum, S. Grinsted and A. Poulton

Lecturing experience

09/2019 - 12/2019 *Representation Theory*: Year 4, 36 lectures
 09/2019 - 12/2019 *Group Theory*: Year 3, 36 lectures
 09/2018 - 12/2018 *Representation Theory*: Year 4, 36 lectures
 09/2018 - 12/2018 *Group Theory*: Year 3, 36 lectures
 01/2018 - 05/2018 *Representation Theory*: Year 4, 36 lectures
 09/2017 - 12/2017 *Group Theory*: Year 3, 36 lectures
 01/2017 - 05/2017 *Representation Theory*: Year 4, 36 lectures
 09/2016 - 12/2016 *Group Theory*: Year 3, 36 lectures
 01/2016 - 05/2016 *Representation Theory*: Year 4, 18 lectures
 09/2015 - 12/2015 *Group Theory*: Year 3, 36 lectures, 12 problem classes
 09/2014 - 12/2014 *Group Theory*: Year 3, 36 lectures, 12 problem classes
 09/2013 - 12/2013 *Group Theory*: Year 3, 36 lectures, 12 problem classes

10/2012 - 01/2013 *Groups and Modules*: Year 3, 36 lectures, 12 tutorials
 02/2012 - 06/2012 *Mathematical Methods for Chemists*: Year 1, 36 lectures, 12 tutorials
 10/2011 - 01/2012 *Groups and Modules*: Year 3, 36 lectures, 12 tutorials
 10/2010 - 01/2011 *Groups and Modules*: Year 3, 36 lectures, 12 tutorials
 10/2009 - 01/2010 *Groups and Modules*: Year 3, 36 lectures, 12 tutorials
 10/2008 - 01/2009 *Rings and Fields*: Year 3, 36 lectures

05/2008 - 09/2008 *Algebraic Structures*: Year 3, 18 lectures, 6 tutorials
 (University of Auckland)

Tutoring experience

09/2016 - 12/2016 *Analysis*: Year 1, 24 tutorials
 09/2016 - 12/2016 *Foundations and Proof*: Year 1, 24 tutorials
 01/2016 - 05/2016 *Introduction to Group Theory*: Year 1, 12 tutorials
 09/2015 - 05/2016 *Analysis*: Year 1, 24 tutorials
 09/2015 - 12/2015 *Foundations and Proof*: Year 1, 12 tutorials
 01/2015 - 05/2015 *Introduction to Group Theory*: Year 1, 12 tutorials
 09/2014 - 05/2015 *Analysis*: Year 1, 24 tutorials
 09/2014 - 12/2014 *Foundations and Proof*: Year 1, 12 tutorials
 01/2014 - 05/2014 *Further Topics in Analysis*: Year 1, 12 tutorials
 09/2013 - 05/2014 *Analysis I*: Year 1, 24 tutorials
 09/2013 - 12/2013 *Number Theory and Group Theory*: Year 1, 12 tutorials

10/2012 - 01/2013 *Linear Algebra I*: Year 1, 24 tutorials
 10/2011 - 01/2012 *Linear Algebra I*: Year 1, 24 tutorials
 02/2011 - 06/2011 *Linear Algebra II*: Year 1, 12 tutorials
 02/2011 - 06/2011 *Mathematical Methods for Chemists*: Year 1, 12 tutorials
 10/2010 - 01/2011 *Linear Algebra I*: Year 1, 24 tutorials
 10/2010 - 01/2011 *Mathematics for Electrical Engineering*: Year 1, 24 tutorials
 02/2010 - 06/2010 *Linear Algebra II*: Year 1, 12 tutorials
 02/2010 - 06/2010 *Mathematical Methods for Chemists*: Year 1, 12 tutorials
 10/2009 - 01/2010 *Linear Algebra I*: Year 1, 24 tutorials
 10/2009 - 01/2010 *Mathematics for Electrical Engineering*: Year 1, 24 tutorials
 02/2009 - 06/2009 *Linear Algebra II*: Year 1, 12 tutorials
 02/2009 - 06/2009 *Mathematical Methods for Chemists*: Year 1, 12 tutorials
 10/2008 - 01/2009 *Linear Algebra I*: Year 1, 24 tutorials

Other teaching experience

02/2019	<i>Big Ideas in Science</i> : 1 lecture (University of Bristol)
02/2018	<i>Big Ideas in Science</i> : 1 lecture (University of Bristol)
02/2017	<i>Big Ideas in Science</i> : 1 lecture (University of Bristol)
09/2016	<i>Simple groups, fixed point ratios and applications</i> : 4 lectures (EPFL, Switzerland)
02/2016	<i>Big Ideas in Science</i> : 1 lecture (University of Bristol)
02/2015	<i>Big Ideas in Science</i> : 1 lecture and tutorial (University of Bristol)
06/2014	<i>Permutation groups and related topics</i> : 5 lectures (EPFL, Switzerland)
10/2004 - 06/2006	College tutor: St John's College, University of Oxford
01/2005 - 06/2005	Intercollegiate tutor: Mathematical Institute, University of Oxford
10/2001 - 06/2004	Teaching assistant: Imperial College London
10/2000 - 06/2001	Undergraduate supervisor: University of Warwick

UNIVERSITY ADMINISTRATION

08/2018 -	Associate Chair of the Heilbronn Institute for Mathematical Research
01/2020 -	Member of University Research Staff Working Party
05/2019 - 07/2019	Chair of Search Committee (Chair of HIMR)
08/2018 - 10/2018	Search Committee member (Head of School of Mathematics)
06/2018 - 12/2018	CDT bid team member (Discrete Mathematics)
01/2015 - 07/2018	Postgraduate Admissions Tutor in Pure Mathematics
10/2016 - 12/2016	Curriculum Review Committee, member
12/2016	Interview panel member (Heilbronn research fellowship)
01/2016	Interview panel member (Heilbronn research fellowship)
04/2012	Interview panel member (postdoc in Pure Mathematics)
09/2011 - 07/2013	Programme Coordinator for the BSc Mathematics with Music degree
09/2011 - 02/2012	Organiser of the Staff Development and Training programme in Mathematics
09/2009 - 07/2013	Webpage coordinator for Pure Mathematics

PROFESSIONAL ACTIVITIES

01/2020 -	Managing Editor of the <i>Journal of Group Theory</i> (de Gruyter)
01/2015 - 12/2019	Editor of the <i>Journal of Group Theory</i> (de Gruyter)
01/2018 -	Editor for <i>London Mathematical Society Student Texts</i> (CUP)
01/2009 -	Member of the London Mathematical Society
04/2012 - 07/2013	London Mathematical Society Representative (University of Southampton)
01/2012 -	Fellow of the UK Higher Education Academy (since January 2012)
06/2003 -	Reviewer for AMS <i>Mathematical Reviews</i> (91 reviews to date)
01/2004 -	Invited referee for the following publishers and journals: <ul style="list-style-type: none"> – Cambridge University Press – Springer Lecture Notes – Advances in Mathematics – Algebra and Number Theory – Archiv der Mathematik – Bulletin of the Australian Mathematical Society

- Bulletin of the London Mathematical Society
- Communications in Algebra
- Czechoslovak Mathematical Journal
- Discrete Mathematics
- Experimental Mathematics
- Expositiones Mathematicae
- Forum of Mathematics, Sigma
- Forum Mathematicum
- Groups, Geometry and Dynamics
- Israel Journal of Mathematics
- Journal für die reine und angewandte Mathematik
- Journal of Algebra
- Journal of Algebraic Combinatorics
- Journal of Combinatorial Theory, Series A
- Journal of the European Mathematical Society (JEMS)
- Journal of Group Theory
- Journal of Number Theory
- Journal of Pure and Applied Algebra
- Journal of the Indian Mathematical Society
- Journal of the London Mathematical Society
- New Zealand Journal of Mathematics
- Proceedings of the London Mathematical Society
- Proceedings of the Steklov Institute of Mathematics
- Transactions of the American Mathematical Society

OTHER ACTIVITIES

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|-----------|--|
| 06/2017 | External PhD examiner (University of Warwick) |
| 03/2015 | External PhD examiner (EPFL, Switzerland) |
| 05/2013 | External PhD examiner (University of Birmingham) |
| 03/2013 | External PhD examiner (University of Padua, Italy) |
| 06/2017 | Internal PhD examiner (University of Bristol) |
| 11/2015 | Internal PhD examiner (University of Bristol) |
| 05/2014 | Internal PhD examiner (University of Bristol) |
| 05/2012 | Internal PhD examiner (University of Southampton) |
| 09/2010 | Internal PhD examiner (University of Southampton) |
| 06/2009 | Internal PhD examiner (University of Southampton) |
| 10/2017 | External MPhil/PhD transfer examiner (University of South Wales) |
| 06/2019 | University Open Day talk |
| 09/2018 | University Open Day talk |
| 06/2017 | University Open Day talk |
| 06/2016 | University Open Day talk |
| 05/2017 | MSc Mathematical Sciences external assessor (University of York) |
| 11/2017 | Invited research proposal review (Freiburg Institute, Germany) |
| 09/2017 | Invited research grant review (Leverhulme Trust, UK) |
| 02/2016 | Invited postdoctoral fellowship review (FWO, Belgium) |
| 10/2019 - | Mentor to Teaching Associate (C. Cox) |
| 10/2019 - | Academic mentor to Heilbronn Fellow (J. Williams) |
| 10/2017 - | Academic mentor to Heilbronn Fellow (A. Malcolm) |

10/2013 - Academic mentor to Heilbronn Fellow (J. McInroy)
10/2015 - 08/2018 Academic mentor to Heilbronn Fellow (A. Thomas)
10/2013 - 07/2016 Academic mentor to Heilbronn Fellow (J. Semeraro)

05/2014 Popularisation of mathematics: *Numberphile* videos (500,000+ views)
<http://www.youtube.com/watch?v=jsSeoGpiWsw>
<http://www.youtube.com/watch?v=MXKiih4JJvQ>