# Dr S. J. Wadsley - Curriculum Vitae

## Personal Details

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Date of Birth	10 January 1978
Nationality	British

#### Employment

2018-	Senior College Lecturer at Homerton College, Cambridge
2008-	Affiliated Lecturer DPMMS, Cambridge (under Newton Trust CTO scheme 2008-2018)
2007-	College Lecturer, Fellow and Director of Studies in Maths at Homerton College, Cambridge
2005-2007	Fellow of Jesus College, Cambridge
2005-2008	EPSRC Postdoctoral Fellowship in Mathematics at DPMMS, Cambridge

## Education and Qualifications

1996-2004 Gonville and Caius College, Cambridge
2004 PhD (Thesis Title: Representations of some Noetherian Algebras)
2003 MA
2000 Certificate of Advanced Study in Mathematics (converted to MMath in 2011)
2000 Part III Tripos Result: Distinction
1999 BA(Hons) Mathematics (Class I)

# Publications and Preprints

- $\widehat{\mathcal{D}}\text{-modules}$  for rigid analytic spaces III: weak holomonicity and operations, with K. Ardakov and A. Bode, arXiv: 1904.13280
- $\hat{\mathcal{D}}\text{-}\mathrm{modules}$  for rigid analytic spaces II: Kashiwara's equivalence, with K. Ardakov, Journal of Algebraic Geometry 27 (2018) 647-701
- D-modules for rigid analytic spaces I, with K. Ardakov, Journal für die reine und angewandte Mathematik 747 (2019) 221-276
- Verma modules for Iwasawa algebras are faithful, with K. Ardakov, Münster Journal of Mathematics 7 (2014) 5-26
- On the irreducible representations of compact *p*-adic analytic groups, with K. Ardakov, Annals of Mathematics 178 (2013), no.2 453-557
- Euler Characteristics, Akashi series and compact p-adic Lie groups Proceedings of the American Mathematical Society 138 (2010), no. 10 3455-3465
- On the Cartan map for crossed products and Hopf-Galois extensions, with K. Ardakov, Algebras and Representation Theory 13 (2010) no. 1 33-41
- Gamma-invariant ideals in Iwasawa algebras, with K. Ardakov, Journal of Pure and Applied Algebra 213 (2009), 1852-1864
- $K_0$  and the dimension filtration for p-torsion Iwasawa modules, with K. Ardakov, Proceedings of the London Mathematical Society 97 (2008) 31-59
- A Bernstein-type inequality for Heisenberg pro-p groups, Quarterly Journal of Mathematics 58 (2007) no.2 265-277
- Euler characteristics of p-torsion Iwasawa modules, Pro-p extensions of global fields and pro-p groups, Oberwolfach Rep. 3 (2006) no.2 1504
- Characteristic elements for *p*-torsion Iwasawa modules, with K. Ardakov, Journal of Algebraic Geometry 15 (2006) 339-377
- Homogeneity and Rigidity of the Brookes-Groves invariant for the non-commutative torus, Journal of Algebra 297 (2006) 417-437
- Polyhedrality of the Brookes-Groves invariant for the non-commutative torus, Journal of Algebra 293 (2005) 543-560

## Recent Invited Talks/Conferences

- 07/2019 Geometric methods in p-adic representation theory at Trinity College, Dublin
- 03/2017 Conference on p-adic Analytic Geometry and Differential Equations at CIRM, Luminy
- 03/2017 Séminaire de géométrie arithmétique at Université Rennes 1
- 01/2016 Birmingham Algebra Seminar
- 12/2015 Bristol Number Theory Seminar
- 05/2015 Conference on Enveloping Algebras and Geometric Representation Theory, Oberwolfach, Germany
- 03/2015 London Number Theory Seminar
- 09/2014 Series of three lectures on non-commutative Algebraic Geomtery at Capital Normal University, Beijing
- 09/2014 Workshop on Algebraic Lie theory and representation theory at ICMS, Edinburgh
- 08/2014 Session Chair at ICM Seoul
- 09/2013 WANDS meeting, Sheffield
- $06/2013 \quad {\rm Oberseminar, \, Essen, \, Germany}$
- 03/2013 Artin/BLOC meeting, Sheffield
- 03/2013 Exeter Pure Maths Seminar
- 03/2013 Workshop on Applications of Iwasawa algebras, Banff International Research Station
- 01/2013 Conference on Iwasawa Theory, Representations, and the p-adic Langlands Program, Münster
- 04/2012 Noncommutative Geometry session, BMC, Kent
- 11/2011 Warwick Number Theory Seminar
- 10/2011 Glasgow Algebra Seminar
- 08/2011 Automorphic forms, Galois representations, and geometric representation theory, Cordoba, Argentina
- 06/2011 South England Profinite Groups meeting on Iwasawa algebras
- 02/2011 Nottingham Number Theory Seminar

#### Grants held

2005-2008 EPSRC Postdoctoral Fellowship Grant No. EP/C527348/1.

#### Teaching

As an Affliated Lecturer I give 24 lectures a year for the Cambridge University Faculty of Mathematics in addition to six hours a week supervision of undergraduates for Homerton and other colleges in a range of courses. This year I am lecturing Part III 'Iwasawa Algebras'. Other lecture courses given: 'Groups (Part IA)'; 'Linear Algebra (Part IB)'; 'Representation Theory (Part II)'; 'Commutative Algebra (Part III)' and 'Noncommutative Noetherian Algebras (Part III)'.

I have been supervising Cambridge undergraduates since October 2000 during which time I have supervised all the pure courses in the first two years of the Tripos and several of the third year courses. I have been used as a supervisor by nearly every Cambridge college with mathematicians.

I have had four graduate students complete their PhDs. One has been recently appointed to a faculty position at Krea University in India. Another is currently a Postdoctoral Research Assistant at the University of Oxford.

#### Administration

I have been Secretary to the Governing Body and Council at Homerton College since October 2014. I was a member of Homerton College's Council from October 2012-September 2014. I sat on the interview panel for the appointment of the Senior Tutor at Homerton in April 2013. I have also served on the Investment Committee, the Statutes & Ordinances Committee and the Fellowship Committee. I have been a Tutor since October 2016.

I was the first Director of Studies in Maths at Homerton. Before I arrived there were no undergraduates at Homerton reading the Maths Tripos. Now there are typically ten in each year group.

I attended a week-long course on Endowment Asset Management at the Judge Business School in June 2011.

Since October 2016 I have been a member of the Mathematics Undergraduate Admissions Committee (a committee of the Faculty Board of Mathematics). I have interviewed for undergraduate admission to Cambridge University each year since 2006.

I have acted as a referee for the Journal of Algebra, the Journal of Pure and Applied Algebra, Math. Zeitschrift, Expositiones Math., the Pacific Journal of Mathematics, and the Mathematical Proceedings of the Cambridge Philosophical Society.

I co-organised a Clay Mathematics Institute workshop on D-modules, Geometric Representation Theory, and Arithmetic Applications with Konstantin Ardakov (Oxford), Tobias Schmidt (Rennes), Matthias Strauch (Indiana) in December 2017.