David Loeffler – Curriculum Vitae

Contact Details

Full name	David Alexander Loeffler
Date of birth	25th April 1983
Nationality	British
Postal address	Mathematics Institute, Zeeman Building University of Warwick, Coventry CV4 7AL, UK
Email address	d.a.loeffler@warwick.ac.uk
Web page	http://www2.warwick.ac.uk/fac/sci/maths/people/staff/david_loeffler/

Employment

06/2016 onwards	Reader, Mathematics Institute, University of Warwick.
04/2014–05/2016	Associate Professor, Mathematics Institute, University of Warwick.
01/2013–03/2014	Assistant Professor, Mathematics Institute, University of Warwick.
01/2010–01/2013	Zeeman Lecturer, Mathematics Institute, University of Warwick.
10/2008–12/2009	Junior Research Fellow in Mathematics, Churchill College, Cambridge.

Education

2005-2008	PhD student, Department of Mathematics, Imperial College, UK. Supervisor: Kevin Buzzard. Thesis title: *Overconvergent algebraic automorphic forms*.
2004-2005	Mathematical Tripos Part III (one-year taught postgraduate course), University of Cambridge, UK. (Graduated with distinction.)
2001-2004	BA (Hons) Mathematics, University of Cambridge (Trinity College), UK. (First class, highest mark in year).
1994-2001	Cotham School, Bristol. 4 A-levels at grade A (Pure Mathematics, Mechanics, Physics, Chemistry). 1 AS-level at grade A (Statistics).

Research Prizes

2015	London Mathematical Society Whitehead Prize (shared with Sarah Livia Zerbes).
2014	Philip Leverhulme Prize (shared with Sarah Livia Zerbes).

Research Grants

10/2017–09/2020	Renewal of Royal Society University Research Fellowship. Value: £271,200.
09/2015–08/2017	50% share of 2014 Philip Leverhulme Prize fund. Value: £50,000.
10/2012–09/2017	Royal Society University Research Fellowship, *L-functions and Iwasawa theory*. Value: £505,029.
03/2011–07/2011	Monash-Warwick Strategic Funding Initiative grant *Computations on supersingular elliptic curves* (co-investigator). Value: £7,750.
10/2008–09/2011	EPSRC Postdoctoral Fellowship EP/F04304X/1, *Eigenvarieties for compact reductive groups*. Value: £347,369.

Teaching Experience

2016–17	Graduate course "Homological Algebra".
2014–15	3rd year undergraduate course "Algebraic Number Theory".
2013–14	Graduate course "Geometry of Modular Curves".
2011–12	2nd year undergraduate course "Algebra 1" and 3rd/4th year undergraduate course "Modular Forms". Personal tutor for 12 undergraduates.
2010–11	3rd/4th year undergraduate course "Modular Forms".
2008–9	Cambridge Part III lecture course "Modular Forms".

I have also led a number of study groups for PhD students at Cambridge and Warwick, on topics such as "Euler Systems", "Rigid Geometry", and "P-adic Analysis".

Research Supervision

Current:	Postdoctoral researcher: G. Harikumar (2016–present)
	PhD students: A. Arlandini (2016–present), C. Hall (to start September 2017)
Previous:	PhD student: C.D. Williams (2012–16)
	MSc students: L. Mavrides (2010–11); F. Völz (2011–12); E. Geromin (2012–13)
	11 fourth-year MMath research projects

Academic Visits

Aug–Dec 2017	Centre Bernoulli, Lausanne, Switzerland, for programme *Euler Systems and Special Values of L-functions*.
Mar 2017	IHÉS, Paris (as guest of Michael Harris).
Feb–Mar 2016	Institute of Advanced Study, Princeton, USA.
Aug–Dec 2014	MSRI, Berkeley, USA, for programme *New Geometric Methods in Number Theory and Automorphic Forms*.

Apr 2014	Ben-Gurion University, Beersheba, Israel (as guest of Amnon Besser).
Apr 2012, Jun 2013	McGill University, Montreal, Canada (as guest of Henri Darmon).
Feb–Mar 2011	Northwestern University, Chicago, USA (as guest of Matthew Emerton).
Nov 2008	Tata Institute, Mumbai, India, for "p-adic semester" programme.
Jan–May 2006	Harvard University, Cambridge, USA, for *Eigenvarieties* semester.

Conference Invitations (selection)

March 2018	Arizona Winter School in Arithmetic Geometry (course leader)
August 2017	*Iwasawa 2017*, Tokyo, Japan.
July 2017	*Euler systems and p-adic L-functions*, Nisyros, Greece.
August 2015	*Arithmetic of Euler systems*, Benasque, Spain. (One-week workshop focussing on my work with Kings, Lei and Zerbes.)
July 2015	*Pan-Asian Number Theory Conference*, Sanya, China.
July 2015	*Journées Arithmetiques*, Debrecen, Hungary. (Plenary speaker.)
August 2014	*Automorphic forms and arithmetic* (ICM 2014 satellite), Pohang, Korea.
July 2014	*Algebraische Zahlentheorie*, Oberwolfach, Germany.
June 2014	*P-adic variation in number theory (in honour of Glenn Stevens)*, Boston.
April 2014	British Mathematics Colloquium number theory workshop, QMUL.
March 2013	*Applications of Iwasawa Algebras*, Banff, Canada.
July 2012	*Iwasawa 2012*, Heidelberg, Germany.
August 2011	Summer school *Computational Methods for Modular Forms*, Heidelberg, Germany. (Invited to give a course of 5 lectures.)

Other Professional Experience

- I co-organized the EPSRC-funded workshops "Higher rank automorphic forms and L-functions" and "Explicit methods for modular forms" at Warwick in spring 2013, as part of the 2012-13 Number Theory Symposium.
- In March 2015 I organized a conference "Elliptic curves, modular forms and Iwasawa theory" in Cambridge, and an accompanying specialized workshop at the Royal Society Kavli Centre, in honour of J.H. Coates' 70th birthday. I was also one of the two editors of the proceedings volume for this conference.
- I am a member of the Physical Sciences Research Grants Panel of the Royal Society, and I have also also reviewed grant applications for several other funding bodies, including the Engineering and Physical Sciences Research Council (UK), National Security Agency (US), and several European universities.
- I have served as external examiner for the MPhil thesis of S.K.H. Chow (University of Melbourne, 2012) and for the PhD thesis of T. Mégarbané (École Polytechnique, 2016). In 2017 I will be the internal examiner for the PhD thesis of C. Birkbeck (Warwick).

- I have refereed papers for a wide range of research journals, including *Annals of Mathematics*, *Inventiones Math*, *Duke Math Journal* and *J Reine Angew Math*.
- I have contributed extensively to the Sage open-source mathematical software project, in particular to the widely-used module for computing with modular forms.
- I completed the University of Warwick's PCAPP (Postgraduate Certificate in Academic and Professional Practice) programme in January 2014, thus becoming a Fellow of the Higher Education Academy.

Languages

- English: native language
- German: intermediate (48% Duolingo fluency score)
- French, Spanish: basic

Last updated Wed, 03 May 2017