

CURRICULUM VITAE

NAME: Richard Lawrence Taylor
DATE OF BIRTH: 19 May 1962
NATIONALITIES: US and British

CAREER:

1980-84 BA, Cambridge University, England.
1984-88 PhD, Princeton University, U.S.A. (advisor Andrew Wiles).
1988-95 Fellow of Clare College, Cambridge.
1988-89 Royal Society European Exchange Fellow at Institut des Hautes Etudes Scientifiques, Paris.
1989-95 Assistant Lecturer, Lecturer then Reader at Cambridge University.
1995-96 Savilian Professor of Geometry at Oxford University.
1995-96 Fellow of New College, Oxford.
1996-2012 Professor of Mathematics, then Herchel Smith Professor of Mathematics, Harvard University.
2012- Robert and Luisa Fernholz Professor, IAS, Princeton.

VISITING POSITIONS:

1992 Visiting Assistant Professor at Caltech.
1994 Visiting Professor at Harvard University.
1999 Miller Visiting Professor at Berkeley.
2010-11 Distinguished Visiting Professor at IAS, Princeton.

PRIZES AND FELLOWSHIPS:

1987-88 Sloane Foundation Doctoral Dissertation Fellowship.
1990 Whitehead Prize (from the LMS).
1992 Prix Franco-Britannique (from the French Academie des Sciences).
1995- Fellow of the Royal Society.
2001 Ostrowski Prize (shared with H.Iwaniec and P.Sarnak).
2001 Fermat Prize for Mathematics (shared with W.Werner).
2002 Cole Prize for Number Theory (from the AMS, shared with H.Iwaniec).
2002-03 Guggenheim Fellowship.
2005 Dannie Heinemann Prize, Gottingen Academy of Sciences.
2007 Clay Research Award.
2007 Shaw Prize in Mathematics (shared with R.Langlands).
2012- Member of the American Academy of Arts and Sciences.
2013- Fellow of the American Mathematical Society.
2014 Breakthrough Prize in Mathematics.

LECTURES:

- 1994 Invited speaker at the Zurich ICM.
- 2000 Kuwait Fund lecture at Cambridge University.
- 2000 Richard E. Phillips lectures at Michigan State University.
- 2001 Ritt lectures at Columbia University.
- 2001 Opening lecture at the 2001 Mathematische Arbeitstagung.
- 2002 Invited 1 hour address at AMS national meeting.
- 2002 Albert lectures at the University of Chicago.
- 2002 Invited plenary speaker at the Beijing ICM.
- 2003 De Long lectures at the University of Colorado, Boulder.
- 2004 Alaoglu lecture, Caltech.
- 2004 Whittemore lectures at Yale.
- 2004 R.L.Moore lecture at the University of Texas, Austin.
- 2008 Invited plenary speaker at the Amsterdam ECM.
- 2009 Chern lectures at UC Berkeley.
- 2011 Milliman lectures at the University of Washington, Seattle.
- 2013 UCLA Distinguished Lecture Series.

PhD STUDENTS:

Frazer Jarvis (Sheffield University), Karsten Buecker (hedge fund), Kevin Buzzard (Imperial College), Luiz Figueiredo (Universidade Federal Fluminense, Brazil), Oliver Bültel (University of Essen), Mark Dickinson (software), Sam Williams (film), Russ Mann (finance), David Savitt (University of Arizona), Elena Mantovan (Caltech), Peter Green (hedge fund), Grigor Grigorov (hedge fund), Florian Herzig (University of Toronto), Michael Schein (Bar-Ilan University), Teruyoshi Yoshida (Cambridge University), Sug-Woo Shin (UC Berkeley), Kai-Wen Lan (University of Minnesota), Tom Barnet-Lamb (hedge fund), Suh-Hyun Choi (KAIST), David Geraghty (Boston College), Wushi Goldring (NSF post-doc), Ana Caraiani (IAS/Princeton University), Jack Thorne (Clay Fellow and Cambridge University), Bao Le Hung (University of Chicago) and 4 current students.

ADMINISTRATION:

- 1994-2000 Editor of *Inventiones Mathematicae*.
- 2000-2002 Mathematical sciences sectional committee of the Royal Society.
- 2000- Editor of the *Duke Mathematical Journal*.
- 2002-2010 Director of graduate studies, Harvard mathematics department.
- 2003-2005 Program committee for ICM 2006.
- 2007-2013 Editor of *Algebra and Number Theory*.
- 2009-2015 MSRI Scientific Advisory Committee (co-chair from 2012).
- 2009-2010 Lead organizer of Harvard conference “Number Theory and Representation theory”.
- 2010-2011 Organizer IAS special year “Galois Representations and Automorphic Forms”.
- 2012-2015 MSRI Board of Trustees.
- 2012- Editor of *Forum of Mathematics*.
- 2013- Editor of *Annals of Mathematics*.
- 2013 Lead organizer MSRI hot topics meeting “perfectoid spaces and their applications”.

Various prize committees: AMS Cole Prize (2004 (chair) and 2010), Blumenthal Prize (2004), Nemmers Prize (2006), Infosys Prize (2012, 2013, 2014).

PUBLICATIONS: (mostly available at www.math.harvard.edu/~rtaylor)

40. On the Rigid Cohomology of Certain Shimura Varieties, *with M.Harris, K.-W.Lan and J.Thorne, preprint.*
39. Automorphy and irreducibility of some l -adic representations, *with S.Patrikis, to appear Compositio Math.*
38. Local-global compatibility for $l = p$ II, *with T.Barnet-Lamb, T.Gee and D.Geraghty, Ann. Sci. de l'ENS 47 (2014), 161-175.*
37. Local-global compatibility for $l = p$ I, *with T.Barnet-Lamb, T.Gee and D.Geraghty, Ann. de Math. de Toulouse 21 (2012), 57-92.*
36. Adequate subgroups, *with R.Guralnick, F.Herzig and J.Thorne, J. Inst. Math. Jussieu 11 (2012), 907-920.*
35. Potential automorphy and change of weight, *with T.Barnet-Lamb, T.Gee and D.Geraghty, Annals of Math. 179 (2014), 501-609.*
34. The image of complex conjugation in l -adic representations associated to automorphic forms, *Algebra and Number Theory 6 (2012), 405-435.*
33. A family of Calabi-Yau varieties and potential automorphy II, *with T.Barnet-Lamb, D.Geraghty and M.Harris, P.R.I.M.S. 47 (2011), 29-98.*
32. Reciprocity laws and density theorems, *to appear in the Shaw Prize Book* (review article).
31. Automorphy for some l -adic lifts of automorphic mod l representations II, *Pub. Math. IHES 108 (2008), 183-239.*
30. A family of Calabi-Yau varieties and potential automorphy, *with M.Harris and N.Shepherd-Barron, Annals of Math. 171 (2010), 779-813.*
29. Automorphy for some l -adic lifts of automorphic mod l representations I, *with L.Clozel and M.Harris, Pub. Math. IHES 108 (2008), 1-181.*
28. Compatibility of local and global Langlands correspondences, *with T.Yoshida, Journal of the AMS 20 (2007), 467-493.*
27. On the meromorphic continuation of degree two L-functions, *Documenta Mathematica, Extra Volume: John Coates' Sixtieth Birthday (2006), 729-779.*
26. Galois representations, *Annales de la Faculte des Sciences de Toulouse 13 (2004), 73-119, (extended version of 25).*
25. Galois representations, *Proceedings of ICM 2002, volume I, 449-474* (review article).
24. On icosahedral Artin representations II, *Amer. J. Math. 125 (2003), 549-566.*
23. Remarks on a conjecture of Fontaine and Mazur, *Journal of the Institute of Mathematics of Jussieu 1 (2001), 125-143.*
22. On the modularity of rational elliptic curves, *with C.Breuil, B.Conrad and F.Diamond, J.A.M.S. 14 (2001), 843-939.*
21. On icosahedral Artin representations, *with K.Buzzard, M.Dickinson and N.Shepherd-Barron, Duke Math. J. 109 (2001), 283-318.*

20. On the geometry and cohomology of some simple Shimura varieties, *with M.Harris*, *Annals of Mathematics Studies* 151, PUP November 2001.
19. Modularity of certain potentially crystalline Galois representations, *with B.Conrad and F.Diamond*, *J.A.M.S.* 12 (1999), 521-567.
18. Companion forms and weight one forms, *with K.Buzzard*, *Annals of Math.* 149 (1999), 905-919.
17. Icosahedral Galois representations, *Pacific Journal of Math.*, *Olga Tausksy-Todd memorial issue*, (1997), 337-347.
16. On degree 2 Galois representations over \mathbb{F}_4 , *with N.Shepherd-Barron*, *Proc. Nat. Acad. Sci. USA* 94 (1997), 11147-11148.
15. Mod 2 and mod 5 icosahedral representations, *with N.Shepherd-Barron*, *J. Amer. Math. Soc.* 10 (1997), 283-298.
14. Fermat's last theorem, *with H.Darmon and F.Diamond*, *Current Developments in Mathematics 1995*, 1-154, (review article).
13. Ring theoretic properties of certain Hecke algebras, *with A.Wiles*, *Annals of Math.* 141 (1995), 553-572.
12. Representations of Galois groups associated to modular forms, *in "Proceedings of the International Congress of Mathematicians (Zurich 1994)"*, 435-442 (review article).
11. On Galois representations associated to Hilbert modular forms II, *in Elliptic Curves, Modular Forms and Fermat's Last Theorem*, eds. Coates and Yau, *International Press* 1995.
10. Lifting modular mod l representations, *with F.Diamond*, *Duke Math. J.* 74 (1994), 253-269.
9. Non-optimal levels for mod l modular representations of $\text{Gal}(\overline{\mathbb{Q}}/\mathbb{Q})$, *with F.Diamond*, *Invent. Math.* 116 (1994), 435-462.
8. l -adic representations associated to modular forms over imaginary quadratic fields II, *Invent. Math.* 116 (1994), 619-643.
7. On the l -adic cohomology of Siegel three folds, *Invent. Math.* 114 (1993), 289-310.
6. l -adic representations associated to modular forms over imaginary quadratic fields I: Lifting to $GS_{p_4}(\mathbb{Q})$, *with M.Harris and D.Soudry*, *Invent. Math.* 112 (1993), 377-411.
5. An \tilde{A}_4 extension of \mathbb{Q} attached to a non-selfdual automorphic form on $GL(3)$, *with A.Ash and R.Pinch*, *Math. Annalen* 291 (1991), 753-766.
4. Galois representations associated to Siegel modular forms of low weight, *Duke Math. J.* 63 (1991), 281-332.
3. Representations of Galois groups associated to Hilbert modular forms, *in "Automorphic Forms, Shimura Varieties and L-Functions"*, (Academic Press) (1989), volume II, 323-336.
2. On Galois representations associated to Hilbert modular forms, *Inventiones Math.* 98 (1989), 265-280.
1. On congruences between modular forms, *PhD thesis, Princeton University* (1988).