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### Academic Interest

- Algebraic number theory, Arithmetic geometry of Shimura varieties, Automorphic forms and Galois representations.

### Education

- Ph.D. in Mathematics, Harvard University, June 2006 (Adviser: Richard Taylor).
- Ph.D. in Mathematical Sciences, The University of Tokyo, March 2004 (Adviser: Takeshi Saito).
- M.A. in Mathematical Sciences, The University of Tokyo, March 2002 (Adviser: Kazuya Kato).

### Academic Positions

- Lecturer, University of Cambridge, DPMSS, 2006- (on leave 2006/07).
- Junior fellow, Society of Fellows, Harvard University, 2006-09.

### Publications / Preprints

- *Global and local Langlands correspondences for  $GL_n$*  (in Japanese), October 2005, Proceedings of the 50th Symposium on Algebra, Tokushima Univ., 2005.  
<http://abel.math.harvard.edu/~yoshida/Tokushima2005proc.pdf>
- *Local Class Field Theory via Lubin-Tate Theory*, October 2005, math.NT/0606108, to appear in Annales de la Faculte des Sciences de Toulouse.  
<http://arxiv.org/abs/math/0606108>
- *Compatibility of local and global Langlands correspondences* (with Richard Taylor), December 2004, math.NT/0412357, to appear in J. of AMS.  
<http://arxiv.org/abs/math/0412357>
- *Non-abelian Lubin-Tate theory and Deligne-Lusztig theory* (in Japanese), Proceedings of Number Theory Symposium, Waseda Univ., May 2004.  
<http://abel.math.harvard.edu/~yoshida/waseda2004proc.pdf>
- *On non-abelian Lubin-Tate theory via vanishing cycles*, to appear in Annales de l'Institut Fourier.  
<http://arxiv.org/abs/math/0404375>

- *Abelian étale coverings of curves over local fields and application to modular curves*, January 2002, math.NT/0405426.  
<http://arxiv.org/abs/math/0405426>
- *Finiteness theorems in the class field theory of varieties over local fields*, J. of Number Theory, **101**-1 (2003), 138-150.  
[http://dx.doi.org/10.1016/S0022-314X\(03\)00018-0](http://dx.doi.org/10.1016/S0022-314X(03)00018-0)
- *What Graduate Students (and the Rest of Us) Can Learn from Lesson Study* (with Amanda Alvine, Thomas Judson and Michael Schein), Aug. 2004, to appear in College Teaching.

## Invited Talks

- Recent:
  - *Workshop on Sato-Tate conjecture*, Tokyo Institute of Technology, January 2007.
  - *Workshop on the Representation Theory of Reductive Algebraic Groups*, University of Ottawa, January 2007.
  - Hokkaido University, Seminar on Arithmetic Geometry, January 2007.
  - *Algebraic Number Theory and Related Topics*, Kyoto RIMS, December 2006.
  - *Modularity for  $GL(2)$  and Beyond*, MSRI, October 2006.
  - University of Cambridge: Number Theory Seminar, October 2006.
  - Princeton University: Number Theory Seminar, April 2006.
  - Harvard University: Number Theory Seminar, March 2006.
- Compatibility of local and global Langlands correspondences (joint work with R. Taylor):
  - University of Cambridge, February 2006.
  - Hokkaido University, Seminar on Arithmetic Geometry, January 2006.
  - Brandeis University: Fellowship of the Ring, October 2005.
  - *50th Symposium on Algebra*, Tokushima University, August 2005.
  - University of East Anglia, Norwich: Pure Mathematics Seminar, July 2005.
  - University of Nottingham: Number Theory Seminar, July 2005.
  - *Algebraische Zahlentheorie*, Oberwolfach, June 2005.
  - London Number Theory Seminar (at Imperial College), June 2005.
  - Osaka University: Number Theory Seminar, April 2005.
  - Kyoto University: Workshop on Shimura Varieties, April 2005.
  - Harvard University: Number Theory Seminar, March 2005.
  - University of Tokyo: Number Theory Seminar, January 2005.
- Non-abelian Lubin-Tate theory and Deligne-Lusztig theory:
  - Institut de Mathématiques de Jussieu (Paris VI/VII): Séminaire Groupes Réductifs et Formes Automorphes, November 2004.

- London Number Theory Seminar (at Imperial College), June 2004.
- University of Nottingham: Number Theory Seminar, June 2004.
- University of California, Berkeley: Number Theory Seminar, April 2004.
- Stanford University: Number Theory Seminar, April 2004.
- *Symposium on Number Theory*, Waseda University, March 2004.
- Harvard University: Number Theory Seminar, February 2004.
- *Symposium on Arithmetic Geometry*, Hokkaido University, November 2003.
- Class field theory of curves over local fields and applications to modular curves:
  - Johns Hopkins University: Algebraic & Complex Geometry / Number Theory Seminar, October 2002.
  - University of Tokyo: Number theory seminar, June 2002.
  - Harvard University: Modular Curves and Modular Forms Seminar, March 2002.
  - University of Michigan: Arithmetic Seminar, November 2001.
  - University of South California: Algebra Seminar, November 2001.
  - *Advanced Course on Modular Forms and  $p$ -adic Hodge Theory*, Centre de Recerca Matemàtica, Barcelona, July 2001.

## Fellowships/Awards

- Liftoff Fellowship, Clay Mathematics Institute, Summer 2006.
- Harvard GSAS Merit Fellowship, 2004-05.
- Joseph Leonard Walsh Fund, 2002-03.
- International Mathematical Olympiad: Bronze medal, 1993.

## Visiting Positions

- University of Nottingham, June – July 2005.
- Imperial College London, June 2004.

## Teaching Experience

- Teaching Fellow, Harvard University, Math 21a (multivariable calculus) (Fall 2003 and Fall 2005), Tutorial on Complex Multiplication (Spring 2005).
- Research on Lesson Study (coordinated by Tom Judson), Harvard University, 2003-04.
- Kawajuku Educational Institution, K-Kai (mathematics education for high school students), intermediate calculus, basic calculus, elementary number theory, Galois theory, 1996-present.

## Personal information

Born: March 1978.

Citizenship: Japan.

## References

### **Professor Richard Taylor**

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### **Professor Takeshi Saito**

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