

Trevor Arnold — Curriculum Vitæ

Contact Information

Department of Mathematics
1280 Main Street West
Hamilton, ON L8S 4K1
CANADA

phone: (905) 525-9140 ext. 26079
fax: (905) 522-0935
e-mail: arnoldt@math.mcmaster.ca
internet: www.math.mcmaster.ca/~arnoldt

Education

2000–2006 University of Michigan
PhD in Mathematics: Summer 2006
Advisor: Chris Skinner
1998–2000 University of Arizona
BS in Mathematics, *summa cum laude*: Fall 2000

Employment

2009–2011 McMaster University
Postdoctoral fellow
2006–2009 University of Washington
Acting assistant professor and VIGRE fellow
2001–2006 University of Michigan
Graduate student instructor

Research Interests

Algebraic number theory and arithmetic geometry, including the Birch and Swinnerton-Dyer and Bloch-Kato conjectures, Iwasawa theory, p -adic aspects of modular and automorphic forms, p -adic Hodge theory, and the deformation theory of Galois representations.

Papers

Anticyclotomic main conjectures for CM modular forms, Crelle **606** (2007), 41–78
Complex multiplication and parity in Iwasawa theory, J. Number Theory **128** (2008), 2634–2654
Hida families, p -adic heights, and derivatives, Ann. Inst. Fourier **61** (2011), to appear
On the main conjecture for a self-dual Hida family, preprint (submitted)
(with K. Koo) *Change of Selmer group for big Galois representations and application to normalization*, preprint (submitted)

Teaching Experience

- 2009–2010 McMaster University (3 courses)
Math 1B03 (Linear Algebra): instructor and coordinator
Math 2A03 (Multivariable Calculus): instructor
Math 4E03 (Galois Theory): instructor
- 2006–2009 University of Washington (8 courses)
Math 307 (Differential Equations): instructor, 4 sections
Math 308 (Linear Algebra): instructor, 2 sections
Math 324 (Multivariable Calculus): instructor
Math 583 (Class Field Theory): instructor
- 2001–2006 University of Michigan (8 courses)
Math 105 (Precalculus): instructor, 2 sections
Math 115 (Calculus I): instructor, 4 sections
Math 116 (Calculus II): instructor
Math 215 (Differential Equations): teaching assistant

Talks

- June 2010 *Euler system techniques over normal rings* (invited)
Iwasawa 2010, Fields Institute
- Jan. 2010 *Central main conjectures for modular forms*
Number theory seminar, University of Waterloo
- Dec. 2009 *Vanishing of L -functions in families* (invited)
Number theory session, CMS winter meeting 2009, Windsor, ON
- Sept. 2009 *Hida families and vanishing of L -functions*
Arithmetic seminar, McMaster University
- Jan. 2008 *Iwasawa theory, Hida families, and vanishing of L -functions* (invited)
AMS special session on modular forms and modularity, joint meetings, San Diego, CA
- May 2007 *Parity in Iwasawa theory for CM elliptic curves* (invited)
11th annual Pacific Northwest number theory conference, University of Washington
- Nov. 2006 *Elliptic curves and Galois cohomology*
Current topics seminar, University of Washington
- Oct. 2006 *Iwasawa theory and BSD for modular forms*
Number theory seminar, University of Washington
- Feb. 2005 *Anticyclotomic main conjectures for CM modular forms*
Midwest number theory conference for graduate students and recent PhDs II, UIUC
- 2000–2006 Various seminar talks
University of Michigan

Service

- 2009–2011 Organizer of Arithmetic Geometry Seminar, McMaster University
- 2009–2010 Referee for *Internat. J. Number Theory* and *Math. Ann.*
- 2007–2009 Co-chair of VIGRE Undergraduate Projects Committee, University of Washington
- 2002–2006 Organizer of Student Arithmetic Seminar, University of Michigan

Additional Information

Citizenship: United States

Language skills: English (native), French (intermediate)

Programming skills: Python (expert), C++ (expert)