

Krzysztof Klosin

Address The University of Utah
 Department of Mathematics
 155 S 1400 E RM 233
 Salt Lake City, UT 84112-0090
Phone (801) 585-4214
E-mail klosin@math.utah.edu
Website www.math.utah.edu/~klosin

Citizenship

Poland

Current employment

2006 - now Burgess Assistant Professor (University of Utah)

Education

2000-2006 *Ph.D. in Mathematics (Number Theory), May 2006.*
 University of Michigan, Ann Arbor, MI.
 Dissertation: *Congruences among automorphic forms on the unitary group $U(2, 2)$*
 directed by Professor Christopher M. Skinner.

1999-2000 Graduate Student in Mathematics and Teaching Assistant,
 University of Virginia, Charlottesville, VA.

1994-1999 *M.Sc. in Theoretical Physics, with Honors*
 (awarded medal: "Primus Inter Pares")
 University of Adam Mickiewicz, Poznan, Poland,
 thesis: *Wheeler-DeWitt quantum field*
 directed by Professor Zbigniew Jacyna-Onyszkiewicz.

1994-1999 *M.A. in International Relations, with Honors*
 University of Economics, Poznan, Poland,
 thesis: *Mathematical aspects of exchange rate*
 directed by Professor Tomasz Rynarzewski.

Papers/preprints

- 2007 *A deformation problem for Galois representations over imaginary quadratic fields.*
Preprint (joint with Tobias Berger (Cambridge), submitted for publication),
available online at www.math.utah.edu/~klosin
- 2007 *Adelic Maass spaces on $U(2,2)$.*
Preprint (submitted for publication),
available online at <http://arxiv.org/abs/0706.282>
- 2006 *Congruences among modular forms on $U(2,2)$ and the Bloch-Kato conjecture.*
Accepted for publication in Annales de l'institut Fourier,
available online at <http://arxiv.org/abs/0710.2549>
- 2006 *Congruences among automorphic forms on the unitary group $U(2,2)$.*
Thesis, University of Michigan, Ann Arbor
- 2005 *Ihara's lemma for imaginary quadratic fields.*
Preprint (under revisions for Journal of Number Theory),
available online at <http://arxiv.org/abs/0708.3006>

Research Interests

- Current Algebraic Number Theory, Representation Theory, Arithmetic Algebraic Geometry. More precisely: the Bloch-Kato conjecture for modular forms, congruences among automorphic forms on $GL(2)$ and higher-rank groups, modularity of Galois representations, special values of L-functions, Iwasawa theory, the Langlands program

Expository papers

- 2006 *Some local (at p) properties of residual Galois representations,*
Number Theory Learning Seminar, University of Michigan,
available online at www.math.lsa.umich.edu/~bdconrad/vigregroup/
- 2005 *On the reflex norm,*
VIGRE Working Group in Number Theory, University of Michigan,
available online at www.math.lsa.umich.edu/~bdconrad/vigregroup/

Expository papers continued

- 2004 *Finiteness of the Mordell-Weil group*,
VIGRE Working Group in Number Theory, University of Michigan,
available online at www.math.lsa.umich.edu/~bdconrad/vigregroup/
- 2003 *Applications of the finiteness of the Mordell-Weil group*,
VIGRE Working Group in Number Theory, University of Michigan,
available online at www.math.lsa.umich.edu/~bdconrad/vigregroup/
- 2002 *On variations of Hodge structures*,
(with J.Brown, K.Eisentrager, J.Pineiro, M.Trifkovic, O.Watson),
available online at <http://swc.math.arizona.edu/aws/02/02Notes.html>

Invited Talks

- January 2008 The Annual Joint Meeting of the AMS, Special session on Modular forms and modularity, San Diego, CA (20-minute address).
- Sept 2007 International Conference on Arithmetic Algebraic Geometry, Poznan, Poland (1-hour address).
- July 2007 The First Joint Meeting between the AMS and the Polish Mathematical Society, special session on Arithmetic Algebraic Geometry, Warsaw, Poland (40-minute address).
- June 2007 Universite Paris 13, Number Theory Seminar (1-hour address).
- April 2007 2007 Spring Western Section Meeting of the AMS, special session on Number Theory in the Southwest, Tucson, AZ (20-minute address).
- February 2006 Johns Hopkins University, Number Theory seminar (1-hour address).

Contributed Talks

- July 2007 25th Journées Arithmétiques, Edinburgh, UK
- February 2005 Midwest Number Theory Conference for Graduate Students and Recent Ph.D.s, University of Illinois, Urbana-Champaign
- March 2002 Arizona Winter School 2002, Presentation of a student group project directed by Prof. Johan DeJong, title: *On variations of Hodge structures*.

Awards

- 2002 *Gabriel and Sophie Rainich Scholarship*,
University of Michigan, Ann Arbor, MI.
- 2001 *Department of Mathematics Scholarship*,
University of Michigan, Ann Arbor, MI.
- 1999 *Medal: "Primus Inter Pares" for outstanding academic achievements*,
University of Adam Mickiewicz, Poznan, Poland.
- 1996-1999 *Department of Physics Scholarship*,
University of Adam Mickiewicz, Poznan, Poland.

Services

- 2006-2007 Organizer of the Number Theory Seminar (University of Utah).
- 2006-2007 Organizer of a Learning Seminar in Number Theory for faculty and graduate students on Iwasawa Theory, Galois representations and p-adic modular forms (University of Utah).
- 2006-2007 Supervisor for a reading course in Algebraic Number Theory and Class Field Theory for a graduate student (University of Utah).
- 2003-2006 Co-organizer of the Student Number Theory Seminar (University of Michigan).
- 2004 Organizer of the Informal Learning Seminar on Iwasawa Theory (University of Michigan).

Teaching

- 2007-2008 *Primary Lecturer, Cryptography*
University Of Utah, Department of Mathematics.
Responsibilities: lecturing, writing and grading exams and homework.
- 2007-2008 *Organizer, Undergraduate Seminar*
Topic: The Riemann zeta-function and arithmetic
University Of Utah, Department of Mathematics.
- 2006-2007 *Primary Lecturer, Calculus I and II*
University of Utah, Department of Mathematics.
Responsibilities: lecturing, writing and grading exams and homework.

Teaching continued

- 2000 - 2005 *Graduate Student Instructor, Calculus I and II*
University of Michigan, Department of Mathematics.
Primary instructor (for a total of 10 semesters) for a class of about 30 students.
Responsibilities: lecturing, writing and grading quizzes, homework and exams.
- 1999-2000 *Teaching Assistant, Calculus II*
University of Virginia, Department of Mathematics.
Responsibilities: running a discussion section, grading quizzes and exams.