

Krzysztof Klosin

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CURRENT POSITION

September 2010 - now **Assistant Professor - tenure track**
City University of New York (Queens College).
September 2014 - now **Member of the Doctoral Faculty**
City University of New York (The Graduate Center).

PREVIOUS EMPLOYMENT

May 2010-July 2010 **Guest researcher**
and June 2011-July 2011 Max-Planck-Institut für Mathematik, Bonn, Germany.
2009-2010 **Postdoc (chargé de recherche)**
Université Paris 13, Paris, France.
Sept. 2009 **Research in Pairs Fellow,**
Mathematisches Forschungsinstitut, Oberwolfach, Germany.
2008-2009 **Visiting Assistant Professor,**
Cornell University, Ithaca, NY.
2006-2008 **Burgess Assistant Professor,**
University of Utah, Salt Lake City, UT.

EDUCATION

2000-2006 **University of Michigan**, Ann Arbor, Michigan.
Ph.D. in Mathematics, August 2006.
Dissertation: *Congruences among automorphic forms on the unitary group $U(2,2)$.*
Advisor: Prof. Christopher Skinner
1999-2000 **University of Virginia**, Charlottesville, VA.
Graduate student in mathematics.
1994-1999 **University of A. Mickiewicz**, Poznan, Poland.
M.Sc. in Physics, June 1999, with honors, awarded medal *Primus inter pares*,
Dissertation: *The Wheeler-DeWitt Quantum Field*,
Advisor: Prof. Zbigniew Jacyna-Onyszkiewicz.
1994-1999 **University of Economics**, Poznan, Poland.
M.A. in Economics, February 1999, with honors,
Dissertation: *Mathematical aspects of exchange rate*,
Advisor: Prof. Tomasz Rynarzewski.

CITIZENSHIP

Poland.

RESEARCH

Current Interests	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, p-adic modular forms, the Langlands program.
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GRANTS, HONORS AND AWARDS

2016-2018	NSA Young Investigator Grant - 140908 Source: National Security Agency Residually reducible Galois representations and p-adic properties of automorphic lifts, \$40,000.00.
2015-2020	Collaboration Grant for Mathematicians - 354890 Source: Simons Foundation Modularity theorems for Galois representations and congruences, \$35000.00.
2016-2017	PSC-CUNY Research Award TRADA-47-160 Deformations of Galois representations and the Paramodularity Conjecture, \$3499.00.
2015-2016	PSC-CUNY Research Award TRADA-46-58 P-adic families of Maass forms on the unitary groups, \$3499.00.
2014-2015	PSC-CUNY Research Award TRADA-45-58 Modularity of mod p reducible Galois representations and their ideals of reducibility, \$2990.00.
2013-2014	PSC-CUNY Research Award TRADA-44-183 Congruences among p-adic families of Siegel modular forms, \$2449.10.
2012-2013	PSC-CUNY Research Award TRADA-43-143 Deformations of residually reducible Galois representations, \$2210.00.
2011	MPIM Fellowship Max-Planck-Institut für Mathematik, Bonn, Germany.
2010	MPIM Fellowship Max-Planck-Institut für Mathematik, Bonn, Germany.
2009	Research in Pairs Fellowship Mathematisches Forschungsinstitut, Oberwolfach, Germany.
2008	Outstanding Instructor Award University of Utah, Salt Lake City, UT.
2002	Gabriel and Sophie Rainich Scholarship, University of Michigan, Ann Arbor, MI.
1999	Medal “Primus Inter Pares” for outstanding academic achievements, University of A. Mickiewicz, Poznan, Poland.

PH.D. STUDENTS	
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2013-2016	Joe Kramer-Miller , Ph.D. student at the Graduate Center of CUNY. Graduated in May 2016. Thesis: <i>p-adic L-functions and the Geometry of Hida Families</i> . Received the 3-year Heilbronn Postdoctoral Fellowship at University College, London, UK.
2015-present	James Diotte , Ph.D. student at the Graduate Center of CUNY.

RESEARCH PAPERS	
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submitted	A p-adic Hermitian Maass lift , joint with T. Berger
submitted	Congruence primes for automorphic forms on unitary groups and applications to the arithmetic of Ikeda lifts , joint with J. Brown
submitted	On the action of the U_p operator on the local (at p) representation attached to congruence level Siegel modular forms , joint with J. Brown
2015	On lifting and modularity of reducible residual Galois representations over imaginary quadratic fields , joint with T. Berger International Mathematics Research Notices IMRN (2015), no. 20, 10525-10562.
2015	Maass spaces on $U(2,2)$ and the Bloch-Kato conjecture for the adjoint motive of a modular form Journal of the Mathematical Society of Japan, 67 (2015), no. 2, 797-860.
2014	A note on Hecke eigenvalues of hermitian Siegel Eisenstein series Ramanujan Journal 35 (2014), no. 2, 287-298
2014	On higher congruences between automorphic forms joint with T. Berger and K. Kramer Mathematical Research Letters, 21 (2014), no. 1, 71-82.
2013	On deformation rings of residually reducible Galois representations and $R=T$ theorems joint with T. Berger Mathematische Annalen, 355 (2013), no. 2, 481-518
2013	Yoshida lifts and the Bloch-Kato conjecture for the convolution L-function joint with M. Agarwal Journal of Number Theory, 133 (2013), 2496-2537
2013	On Ihara's lemma for degree one and two cohomology over imaginary quadratic fields International Journal of Number Theory, 09 (2013), 1541-1561
2011	An $R=T$ theorem for imaginary quadratic fields joint with T. Berger, Mathematische Annalen, 349 (2011), no. 3, 675-703
2009	Deformation problem for Galois representations over imaginary quadratic fields joint with T. Berger Journal de l'Institut de Math. de Jussieu, (2009) 8(4), 669-692

RESEARCH PAPERS (continued)

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| 2009 | Congruences among modular forms on $U(2,2)$ and the Bloch-Kato conjecture
Annales de l'institut Fourier, 59 no. 1 (2009), p. 81-166 |
| 2008 | Ihara's lemma for imaginary quadratic fields
Journal of Number Theory, 128 (2008), 2251-2262 |
| 2006 | Congruences among automorphic forms on the unitary group $U(2,2)$
Thesis, University of Michigan, Ann Arbor, MI.
available at http://www.vnulib.edu.vn:8000/dspace/handle/123456789/1461 |

EXPOSITORY PAPERS

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| 2006 | Some local (at p) properties of residual Galois representations
available online at http://math.stanford.edu/~conrad/vigregroup/ |
| 2005 | On the reflex norm
available online at http://math.stanford.edu/~conrad/vigregroup/ |
| 2004 | Finiteness of the Mordell-Weil group
available online at http://math.stanford.edu/~conrad/vigregroup/ |
| 2003 | Applications of the finiteness of the Mordell-Weil group
available online at http://math.stanford.edu/~conrad/vigregroup/ |
| 2002 | Variations of Hodge structures
joint with J. Brown, K. Eisentrager, J. Pineiro, M. Trifkovic, O. Watson
Arizona Winter School, Tucson, AZ.
available at www.math.utah.edu/~klosin |

INVITED TALKS

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| Fall 2016 | Illinois Number Theory Seminar , University of Illinois at Urbana-Champaign (1 hour address) |
| July 16, 2014 | Workshop on Bianchi and Siegel modular forms , Sheffield, UK (1 hour address) |
| March 6, 2014 | Algebra and Number Theory Seminar , Pennsylvania State University. (1 hour address) |
| November 5, 2013 | Number Theory Seminar , University of North Carolina at Chapel Hill. (1 hour address) |
| July 26, 2013 | Number Theory Oberseminar , Universitat Heidelberg, Germany. (1 hour address) |
| July 25, 2013 | Mathematics Department Colloquium , Universitat Heidelberg, Germany. (1 hour address) |

INVITED TALKS (Continued)	
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January 14, 2013	Number Theory Seminar , University of California San Diego. (1 hour address)
October 25, 2012	Automorphic forms and representation theory seminar , Purdue University, West Lafayette, IN. (1 hour address)
July 25, 2012	K-theory and arithmetic - conference in honour of J.Hurrelbrink , Banach Center, Bedlewo, Poland. (1 hour address)
January 17, 2012	Erwin Schroedinger Institute Programme on Automorphic Forms: Arithmetic and Geometry , Vienna, Austria. (1 hour address)
December 1, 2011	Number Theory Seminar , Clemson University, Clemson, SC. (1 hour address)
July 22, 2011	Number Theory Lunch Seminar , Max-Planck-Institut für Mathematik, Bonn, Germany. (1 hour address)
June 29, 2011	Number Theory Seminar , University of Sheffield, UK. (1 hour address)
January 20, 2011	Departmental Colloquium , University of Szczecin, Szczecin, Poland. (1.5 hour address)
January 7, 2011	Seminaires de l'équipe d'Arithmetique et Geometrie Algebrique, Université Paris 13 , Paris, France. (1 hour address)
December 22, 2010	Departmental Colloquium , University of A. Mickiewicz, Poznan, Poland. (1 hour address)
November 19, 2010	Collaborative Number Theory Seminar at the CUNY Graduate Center , City University of New York, NY. (1.5 hour address)
November 2, 2010	Number Theory Seminar , Northwestern University, Evanston, IL. (1 hour address)
June 30, 2010	Number Theory Lunch Seminar , Max-Planck-Institut für Mathematik, Bonn, Germany. (1 hour address)
June 1, 2010	Oberseminar (Algebra, Geometrie und Zahlentheorie), Universität Duisburg-Essen , Germany. (1 hour address)
May 31, 2010	Special Number Theory Seminar , Universität Duisburg-Essen, Germany. (1 hour address)
March 9, 2010	Number Theory Seminar , DPMMS, University of Cambridge, UK. (1 hour address)
February 22, 2010	Seminaire Arithmetique et Geometrie Algebrique, Universite Louis Pasteur Strasbourg , France. (1 hour address)
November 6, 2009	Seminaires de l'équipe d'Arithmetique et Geometrie Algebrique, Université Paris 13 , Paris, France. (1 hour address)

INVITED TALKS (Continued)	
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October 26, 2009	Seminaire de theorie des nombres de Chevaleret, Université Paris 6 and 7 , Paris, France. (1 hour address)
July 1, 2009	Colloquium, University of A. Mickiewicz , Poznan, Poland. (1 hour address)
February 13, 2009	Colloquium, City University of New York (Queens College) , New York, NY. (1 hour address)
June 17, 2008	Colloquium, University of A. Mickiewicz , Poznan, Poland. (1 hour address)
January 7, 2008	The Annual Joint Meeting of the AMS , Special session on Modular forms and modularity, San Diego, CA. (20 minute address)
September 7, 2007	International Conference on Arithmetic Algebraic Geometry , Poznan, Poland. (1 hour address)
July 31, 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 29, 2007	Number theory seminar, University of Paris 13 , Paris, France. (1 hour address)
April 21, 2007	2007 Spring Western Section Meeting of the AMS , special session on Number Theory in the Southwest, Tucson, AZ. (20-minute address)
February 7, 2006	Number theory seminar, Johns Hopkins University , Baltimore, MD. (1 hour address)

SELECTED OTHER TALKS AND PRESENTATIONS	
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March 8, 2016	Congruence primes for automorphic forms on unitary groups and applications to the arithmetic of Ikeda lifts , 30th automorphic forms workshop, Wake Forest University, Winston-Salem, NC.
March 2, 2015	The p-adic Maass lift , 29th automorphic forms workshop, Ann Arbor, MI.
July 9, 2014	Congruence modules and modularity of residually reducible Galois representations , Second EU-US conference of automorphic forms and related topics, Bristol, UK.
May 12, 2014	P-adic families of automorphic forms on $\mathrm{GSp}(4)$, 28th automorphic forms workshop, Moab, UT.
December 7, 2012	Congruences among hermitian modular forms and bounds on Selmer groups , Collaborative Number Theory Seminar, City University of New York (Graduate Center), New York, NY.

SELECTED OTHER TALKS AND PRESENTATIONS (Continued)	
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November 13, 2012	Galois representations and modular forms , Colloquium, City University of New York (Bronx Community College), Bronx, NY.
August 13, 2012	Ihara's lemma for imaginary quadratic fields , Number Theory Seminar, University of Sheffield, UK.
August 8, 2012	Congruences among automorphic forms on symplectic and unitary groups and the Bloch-Kato conjecture Galois representations and modular forms , Bulding Bridges, First EU-US conference on automorphic forms and related topics, Aachen, Germany.
February 15, 2012	Galois representations (an introduction) , Colloquium, City University of New York (Queens College), Queens, NY.
December 3, 2011	Modularity of Galois representations over imaginary quadratic fields , Palmetto Number Theory Series XVII conference, Clemson University, Clemson, SC.
August 17, 2011	Modularity of residually reducible Galois representations , plenary talk at the international conference "Galois representations and automorphic forms", Banach Center, Institute of Mathematics of the Polish Academy of Sciences (PAN), Bedlewo, Poland.
November 4, 2010	Prime numbers and the secrets of factorization , talk for Queens College XiSigma members, City University of New York (Queens College), Queens, NY.
November 2, 2010	Introduction to modularity theorems , talk for graduate students, Northwestern University, Evanston, IL.
October 5, 2010	Modular forms and Galois representations , Colloquium, City University of New York (Queens College), Queens, NY.
December 3, 2008	Modular forms and arithmetic , Number Theory Seminar, Cornell University, Ithaca, NY.
September 10 and 17, 2008	Congruences among automorphic forms and the Bloch-Kato conjecture , Number Theory Seminar, Cornell University, Ithaca, NY.
July 3, 2007	Congruences among automorphic forms on unitary groups and the Bloch-Kato conjecture , 25th Journées Arithmétiques, Edinburgh, UK.
September 5, 12 and 19, 2006	Modular forms on $U(2,2)$ and the Bloch-Kato conjecture , Number Theory Seminar, University of Utah, Salt Lake City, UT.
March 13, 2006	Some local (at p) properties of residual Galois representations , Learning Seminar in Number Theory, University of Michigan, Ann Arbor, MI.
February 20, 2006	CAP representations , Student Number Theory Seminar, University of Michigan, Ann Arbor, MI.

SELECTED OTHER TALKS AND PRESENTATIONS (Continued)	
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March 7, 2005	Classical and adelic Eisenstein series , Seminar on Spectral Decomposition and Eisenstein series, University of Michigan, Ann Arbor, MI.
February 21, 2005	Modular Galois representations , Student Number Theory Seminar, University of Michigan, Ann Arbor, MI.
February 15, 2005	On the reflex norm , VIGRE Working Group on Number Theory, University of Michigan, Ann Arbor, MI.
February 5, 2005	Midwest Number Theory Conference for Graduate Students and Recent Ph.D.s , University of Illinois, Urbana-Champaign, IL
March 18, 2002	Variations of Hodge structures: Some examples , Arizona Winter School, Southwestern Center for Arithmetic Algebraic Geometry, University of Arizona, Tucson, AZ.

ORGANIZED CONFERENCES AND WORKSHOPS	
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August 15-20, 2016	Second Conference on Automorphic forms and Galois representations , Banach Center, Institute of Mathematics of the Polish Academy of Sciences (PAN), Poznan, Poland; co-organized with Grzegorz Banaszak (Poznan, Poland) and Tobias Berger (Sheffield, UK)
August 15-19, 2011	Automorphic forms and Galois representations , International Conference on the recent progress in number theory, Banach Center, Institute of Mathematics of the Polish Academy of Sciences (PAN), Poznan, Poland; co-organized with Grzegorz Banaszak (Poznan, Poland) and Tobias Berger (Sheffield, UK)

INVITED CONFERENCES AND WORKSHOPS	
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December 1-5, 2014	Automorphic forms, Shimura varieties, Galois representations and L-functions , conference dedicated to Michael Harris, MSRI, Berkeley.
July 14-16, 2014	Workshop on Bianchi and Siegel modular forms , Sheffield, UK.
June 13-17, 2009	Formes modulaires, Théorie de Hodge p-adique et Applications , Roscoff, France.
July 7-12, 2008	Representations p-adiques de groupes p-adiques , Institut de Mathématiques de Jussieu, Paris, France.
March 24-29, 2008	Selmer groups, L-functions, and Galois deformations , UCLA, Los Angeles, CA.
January 6-8, 2008	Joint Mathematics Meetings , San Diego, CA.
September 4-8, 2007	International Conference on Arithmetic Algebraic Geometry , University of A. Mickiewicz, Poznan, Poland.

INVITED CONFERENCES AND WORKSHOPS (Continued)	
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July 31-August 3, 2007	The First Joint Meeting of the AMS and the Polish Mathematical Society , Warsaw, Poland.
July 9-22, 2007	Summer School on Serre's modularity conjecture , CIRM, Luminy, France.
April 21-22, 2007	Spring Western Section Meeting of the AMS , Special session on Number Theory in the Southwest, University of Arizona, Tucson, AZ.
November 5-8, 2003	AIM Workshop on the Birch and Swinerton-Dyer conjecture , Princeton, NJ.
July 2-6, 2007	25th Journees Arithmetiques , Edinburgh, UK.
January 5-8, 2006	Joint Mathematics Meeting , San Antonio, TX.
February 5-6, 2005	Midwest Number Theory Conference for Graduate Students and Recent Ph.D.'s , University of Illinois, Urbana-Champaign, IL.
Summer 2004	Iwasawa Theory seminar , University of Michigan, Ann Arbor, MI.
July 2002	Park City Mathematical Institute (Automorphic representations) , Park City, UT.
March 2002	Arizona Winter School (Periods) , Southwestern Center for Arithmetic Algebraic Geometry, participant of a project on <i>Variations of Hodge structures</i> under the direction of Johan DeJong, Tucson, AZ.

SERVICE	
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2015	Chair of the Algebra Qualifying Exam Committee , The Graduate Center (CUNY).
2015	Member of the Committee to coordinate the move of the Math Department to Kiely Hall , Queens College (CUNY).
2015-now	Member of the Math Department's Self-Study Committee on Research (related to the Middle States Accreditation process).
2015-now	Member of the Math Department's Self-Study Committee on Curriculum Development (related to the Middle States Accreditation process).
2015-now	Organizer of the two-times-a-week Departmental Tea Time (paid for by Grant #354890Klosin from the Simons Foundation).
2014-now	Reviewer for the Zentralblatt Math , Springer, Germany.
2014-now	Organizer of the Learning Seminar on Rigid Analytic Geometry .
2014-now	Mathematics Department Delegate to the Queens College Academic Senate .

SERVICE (Continued)	
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2014	Member of the Algebra Qualifying Exam Committee , The Graduate Center (CUNY).
2013-now	Referee for the Pacific Journal of Mathematics and Mathematische Zeitschrift.
2013-now	Reviewer for the Mathematical Reviews , American Mathematical Society.
2013-now	Co-organizer of the Collaborative Number Theory Seminar , Graduate Center (CUNY).
2013-now	Member of the Masters Oral Exam Committee (over 20 times), Queens College (CUNY)
2012-now	Member of the calculus committee , Queens College (CUNY), Queens, NY.
2012-now	Organizer of the Mathematics Department Colloquium , Queens College (CUNY), Queens, NY.
2012-2014	Supervisor of a high school student project in Number Theory as part of the Intel Science Talent Search , Bronx High School of Science, Bronx, NY.
2006-2008	Co-organizer of The Learning Seminar in Number Theory for faculty and graduate students , University of Utah, Salt Lake City, UT. Topics covered: Hida's construction of Galois representations, Iwasawa theory, Fontaine's book on p-adic Galois representations.
2007-2008	Reading course supervisor , Algebraic Number Theory and Class Field Theory for a graduate student, University of Utah, Salt Lake City, UT.
2007-2008	Organizer of a Number Theory Seminar , University of Utah, Salt Lake City, UT.
2003-2006	Co-organizer of a Student Number Theory Seminar , University of Michigan, Ann Arbor, MI.
2004	Organizer of the Iwasawa Theory Seminar , University of Michigan, Ann Arbor, MI.

TEACHING	
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Spring 2016	Topics in Real Analysis (Math 650) - Reading Course , Queens College (CUNY), Queens, NY.
Spring 2016	Modern Abstract Algebra (Math 702) , Primary Lecturer, Queens College (CUNY), Queens, NY.
Spring 2015 and 2016	Algebraic Number Theory (Math 615) , Primary Lecturer, Queens College (CUNY), Queens, NY.
Fall 2015	Algebraic Number Theory (Reading Course) , Supervisor for student James Diotte, the Graduate Center (CUNY).
Fall 2015	Differential Geometry (Math 631) , Primary Lecturer, Queens College (CUNY), Queens, NY.
Spring 2015	Algebraic Structures (Abstract Algebra -Math 613) , Primary Lecturer, Queens College (CUNY), Queens, NY.
Fall 2014	Topology (Math 703) , Primary Lecturer, Queens College (CUNY), Queens, NY.
Summer 2014 - 2016	Studies in Mathematics (Math 550) - Invitation to modern mathematics (a new course at Queens College aimed mostly at current high school teachers seeking a Masters degree whose goal was to familiarize them with recent discoveries in mathematics) course designer and primary lecturer, Queens College, Queens, NY.
Spring 2014	Studies in Mathematics (Math 650) - Introduction to elliptic curves , Primary Lecturer, Queens College (CUNY), Queens, NY.
Fall 2013/Spring 2014	Independent Reading Course (Congruences among automorphic forms) , Supervisor, Graduate Center (CUNY), New York, NY.
Fall 2013	Graduate Algebra I , Primary Lecturer, Graduate Center (CUNY), New York, NY.
Spring 2013	Studies in Mathematics (Math 650) - Algebraic Number Theory , Primary Lecturer, Queens College (CUNY), Queens, NY.
Fall 2012	Studies in Mathematics (Math 550) - The Riemann zeta function and beyond (experimental course, using Adobe Connect broadcast live to other CUNY campuses), course designer and primary lecturer, Queens College (CUNY), Queens, NY.
Summer 2012-2016	Games and Puzzles (Math 555) , Primary lecturer, Queens College (CUNY), Queens, NY.
Summer 2012 and Summer 2013	Problem solving (Math 505) , Primary lecturer, Queens College (CUNY), Queens, NY.
2011-2016	Calculus 3 (Math 143) , Primary lecturer, Queens College (CUNY), Queens, NY.

TEACHING (Continued)	
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Spring 2011	Calculus with Applications to the Social Sciences I (Math 131) , Primary lecturer, Queens College (CUNY), Queens, NY.
Fall 2010	Calculus 2 (Math 142) , Primary lecturer, Queens College (CUNY), Queens, NY.
Spring 2009	Honors Seminar - Topics in Modern Mathematics , Primary lecturer, Cornell University, Ithaca, NY.
Spring 2009	Multivariable calculus , Primary lecturer, Cornell University, Ithaca, NY.
Fall 2008	Linear Algebra (200-level) , Primary lecturer, Cornell University, Ithaca, NY.
Fall 2008	Advanced Linear Algebra (400-level) , Primary lecturer, Cornell University, Ithaca, NY.
Spring 2008	Cryptography and Codes (graduate course) , Primary lecturer, University of Utah, Salt Lake City, UT.
Spring 2008	Undergraduate Seminar (for talented undergraduate students) , Organizer and supervisor, topic: The Riemann Zeta function and arithmetic, University of Utah, Salt Lake City, UT.
Fall 2006 - Spring 2007	Calculus I and II , Primary lecturer, University of Utah, Salt Lake City, UT.
2000-2006	Calculus I and II , Graduate Student Instructor, Primary lecturer (total of 10 semesters), University of Michigan, Ann Arbor, MI.
1999-2000	Calculus II , Teaching Assistant, University of Virginia, Charlottesville, VA.