Krzysztof Klosin

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CURRENT POSITION

September 2017 - now **Associate Professor - tenured**
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

2017 - 2018 **Visiting Research Scholar**
Princeton University, Princeton, NJ.

2010 - 2017 **Assistant Professor - tenure track**
City University of New York (Queens College).

May 2010-July 2010 **Guest researcher**
and June 2011-July 2011 Max-Planck-Institut für Mathematik, Bonn, Germany.

2009-2010 **Postdoc**
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.

EDUCATION (continued)	

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	

US

RESEARCH	

Current Interests	Algebraic Number Theory, Representation Theory, Arithmetic Algebraic Geometry. More precisely: modularity of residually reducible Galois representations, the Paramodular Conjecture, Bloch-Kato conjecture for modular forms, congruences among automorphic forms on GL(2) and higher-rank groups, the Langlands program.

GRANTS, HONORS AND AWARDS	

2018-2023	**Collaboration Grant for Mathematicians - 578231** Source: Simons Foundation Modularity of Galois representations and the Paramodular Conjecture, $42000.00.
2019-2020	**PSC-CUNY Research Award TRADB-50-66** The Paramodular Conjecture for abelian surfaces with a rational cycle, $6000.00.
2018-2019	**PSC-CUNY Research Award TRADB-49-171** Limit modularity of abelian surfaces and the Paramodular Conjecture, $6000.00.
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.
2017-2018	**PSC-CUNY Research Award TRADA-48-88** Modularity of abelian surfaces in the ordinary case, $3490.00.
2015-2020	**Collaboration Grant for Mathematicians - 354890** Source: Simons Foundation Modularity theorems for Galois representations and congruences, $35000.00 (used only two years of funding due to obtaining an NSA grant).
2016-2017	**PSC-CUNY Research Award TRADA-47-160** Deformations of Galois representations and the Paramodularity Conjecture, $3499.00.
2016	**President's Excellence in Teaching Award** Queens College, CUNY.
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

2013-2016	**Joe Kramer-Miller**, Ph.D. student at the Graduate Center of CUNY. Graduated in May 2016. Thesis: *p-adic L-functions and the Geometry of Hida Families.* Received the 3-year Heilbronn Postdoctoral Fellowship at University College, London, UK. Currently (2018-2021) a postdoc at University of California, Irvine.
2014-2019	**Lawrence An Hoa Vu**, Ph.D. student at the Graduate Center of CUNY. Graduated in September 2019. Thesis: *Hermitian Maass lift for general level* (to appear in J. Number Theory).
2015-2021 (expected)	**Geoffrey Akers**, Ph.D. student at the Graduate Center of CUNY.

RESEARCH PAPERS	

in preparation	**Irreducibility of limits of Galois representations attached to p-adic Siegel modular forms**, joint with T. Berger.
submitted	**Galois extensions and a conjecture of Ogg**, joint with M. Papikian.
to appear	**Deformations of Saito-Kurokawa type and the Paramodular Conjecture**, joint with T. Berger with appendix by C. Poor, J. Shurman and D. Yuen. American Journal of Mathematics.
to appear	**Congruence primes for automorphic forms on unitary groups and applications to the arithmetic of Ikeda lifts**, joint with J. Brown Kyoto Journal of Mathematics.
2019	**Modularity of residual Galois extensions and the Eisenstein ideal**, joint with T. Berger. Transactions of the American Mathematical Society 372 (2019), no. 11, 8043-8065.
2018	**On Ribet's isogeny for $J_0(65)$**, joint with M. Papikian Proceedings of the American Mathematical Society 146 (2018), no. 8, 3307-3320.
2017	**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 Ramanujan Journal 44 (2017), no. 3, 597-615.
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

RESEARCH PAPERS (continued)	

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
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	

2013	**On the norms of p-stablized elliptic newforms**, (with Jim Brown with appendix by Keith Conrad).
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

September 25, 2019	**Topology, Geometry and Physics Seminar**, CUNY Graduate Center, New York, NY (1.5 hour address)
August 8, 2019	**Number Theory Seminar**, University of A. Mickiewicz, Poznan, Poland (1 hour address)
July 18, 2019	**Conference on p-adic families of automorphic forms and Galois representations**, University of Sheffield, UK (1 hour address).
April 14, 2019	**AMS Sectional Meeting**, University of Connecticut, Hartford, CT (20 minute address).
August 28, 2018	**Arithmetic Algebraic Geometry Conference (plenary talk)**, Poznan, Poland (1 hour address)
April 26, 2018	**Algebra and Number Theory Seminar**, Pennsylvania State University (1 hour address)
December 6, 2017	**Philadelphia Area Number Theory Seminar**, Bryn Mawr College (1 hour address)
August 3, 2017	**Number Theory Seminar**, University of Sheffield, UK (1 hour address)
July 20, 2017	**Colloquium**, University of A. Mickiewicz, Poznan, Poland (1 hour address)
May 4, 2017	**Algebra and Number Theory Seminar**, Pennsylvania State University (1 hour address)
July 21, 2016	**Number Theory Seminar**, University of Sheffield, UK (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)
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'equipe 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'equipe d'Arithmetique et Geometrie Algebrique, Université Paris 13**, Paris, France. (1 hour address)

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

March 6-10, 2019 **33rd Automorphic Forms Workshop**, Duquesne University, Pittsburgh, PA.

June 2, 2018 **The Paramodular Conjecture for abelian surfaces with rational torsion**, Connecticut Summer School in Number Theory Conference, University of Connecticut (20 minute address)

March 20, 2018 **The Paramodular Conjecture for abelian surfaces with rational torsion**, 32nd Automorphic forms Workshop, Tufts University, March 19-22, 2018.

August 19, 2016 **Deformations of Saito-Kurokawa type**, 2nd International Conference on Galois Representations and Automorphic Forms, Banach Center, Bedlewo, Poland.

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 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.

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 Journees Arithmetiques, 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.
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

May 6-7, 2017	**Special Session on Automorphic Forms and Arithmetic at the AMS Spring Eastern Sectional Meeting**, Hunter College, CUNY, New York, NY co-organized with J. Brown (Clemson Univ.)
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

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**, Instutut de Mathematiques 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.

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 *Variations of Hodge structures* under the direction of Johan DeJong, Tucson, AZ.

	SERVICE

Fall 2019 — **Organizer of a learning seminar Introduction to Modular Forms**, The Graduate Center (CUNY).

2018-now — **Member of the Algebra Committee**, The Graduate Center (CUNY).

2017-now — **Math department representative to the Graduate Council**, The Graduate Center (CUNY).

2013-now — **Referee for numerous mathematical journals**.

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 40 times), Queens College (CUNY)

2012-now — **Member of the calculus committee**, Queens College (CUNY), Queens, NY.

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).

2015-2016 — **Member of the Math Department's Self-Study Committee on Research** (related to the Middle States Accreditation process).

2015-2016 — **Member of the Math Department's Self-Study Committee on Curriculum Development** (related to the Middle States Accreditation process).

2015-2017 — **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.

2014-2017 — **Organizer of the Learning Seminar on Rigid Analytic Geometry**.

2014-2017 — **Mathematics Department Delegate to the Queens College Academic Senate**.

2014 — **Member of the Algebra Qualifying Exam Committee**, The Graduate Center (CUNY).

	SERVICE (Continued)
2012-2016	**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
Spring 2020	**Topics course: Modular forms and arithmetic**, Primary Lecturer, Graduate Center CUNY.
Spring 2020	**Foundations of Geometry (Math 618)**, Queens College CUNY.
Fall 2019 and Spring 2020	**Algebraic Structures (Math 333)**, Primary Lecturer, Queens College CUNY.
Fall 2019	**Topics in Topology and Complex Analysis (Math 790) - Reading Course**, Queens College CUNY.
Fall 2019	**Topics Course: Fields and Galois Theory (Math 650)**, Primary Lecturer, Queens College CUNY.
Summer 2019	**Studies in Mathematics (Math 550) - Topics in arithmetic** (a new course at Queens College aimed mostly at current high school teachers seeking a Masters degree - the main focus of the course was a thorough introduction to the theory and applications of continued fractions) course designer and primary lecturer, Queens College, Queens, NY.
Spring 2019	**Graduate Algebra I**, Primary Lecturer, Graduate Center of CUNY.
Spring 2019	**Discrete Mathematics (Math 120)** , Primary Lecturer, Queens College CUNY.

	TEACHING (Continued)
Fall 2018	**Logic and Set Theory (Math 509)**, Primary Lecturer, Queens College (CUNY), Queens, NY.
Fall 2016 and 2014	**Topology (Math 703)**, Primary Lecturer, Queens College (CUNY), Queens, NY.
Fall 2016 and Spring 2014	**Studies in Mathematics (Math 650) - Introduction to elliptic curves**, Primary Lecturer, Queens College (CUNY), Queens, NY.
Fall 2016 and Spring 2017 and Fall 2018	**Algebraic Structures (Math 333)**, Primary Lecturer, Queens College (CUNY), Queens, NY.
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.
Summer 2014 - 2018	**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.
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.

TEACHING (Continued)	

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.
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 undergarduate 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.