

Jayce R. Getz

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Citizenship

USA

Education

PhD, Mathematics, University of Wisconsin at Madison August 2007
(Advisor: Ken Ono)
AB, Mathematics, Harvard University May 2004
(with High Honors)

Professional Positions

Associate Professor (with tenure) 2019–present
Department of Mathematics, Duke University
Assistant Professor 2012–2019
Department of Mathematics, Duke University
Assistant Professor 2010–2012
Department of Mathematics and Statistics, McGill University
Veblen Research Instructor 2007–2010
Department of Mathematics, Princeton University and IAS

Research Interests

Number theory
Automorphic representation theory
Related topics in harmonic analysis and arithmetic geometry

Publications

- (1) (with H. Hahn) **An introduction to Automorphic representations with a view toward Trace Formulae**, Graduate Texts in Mathematics, Vol 300, Springer, 2024.
- (2) *Summation formulae for quadrics*, submitted for publication (arXiv:2201.02583).
- (3) (with Y. Choie) *Schubert Eisenstein series and Poisson summation for Schubert varieties*, submitted for publication (arXiv:2107.01874).
- (4) (with C-H. Hsu) *The Fourier transform for triples of quadratic spaces*, recommended pending revision in Annales de l'institute Fourier.

- (5) (with C-H. Hsu and S. Leslie) *Harmonic analysis on certain spherical varieties*, J. Eur. Math. Soc., (2023), published online first.
- (6) (with B. Liu) *A refined Poisson summation formula for certain Braverman-Kazhdan spaces*, Sci. China Math, (2020).
- (7) (with B. Liu) *A summation formula for triples of quadratic spaces*, Adv. Math., Vol. 347, (2019) 150–191.
- (8) *A summation formula for the Rankin-Selberg monoid and a nonabelian trace formula*, Amer. J. Math, Vol. 142, No. 5 (2020), 1371–1407.
- (9) *Secondary terms in asymptotics for the number of zeros of quadratic forms over number fields*, J. London Math. Soc., Vol. 98, No. 2 (2018), 275–305.
- (10) *Nonabelian Fourier transforms for spherical representations*, Pacific J. Math., Vol. 294 (2018), 351–373.
- (11) *Automorphic kernel functions in four variables*, Research in the Mathematical Sciences, Vol. 3, No 20. (2016), 1–26.
- (12) (with H. Hahn) *A general simple relative trace formula*, Pacific J. Math., Vol. 277, No 1 (2015), 99–118.
- (13) (with P. Edward Herman) *A nonabelian trace formula*, Research in the Mathematical Sciences, Vol. 2, No 14 (2015), 1-21.
- (14) (with J. Klassen) *Isolating Rankin-Selberg lifts*, Proc. Amer. Math. Soc., Vol. 143, No 8 (2015), 3319–3329.
- (15) (with H. Hahn) *Algebraic cycles and Tate classes on Hilbert modular varieties*, Int. J. Number Theory, Vol. 10, No 1 (2014), 161–176.
- (16) (with E. Wambach) *Twisted relative trace formulae with a view towards unitary groups*, American J. Math., Vol. 136, No 1 (2014), 1–57.
- (17) *An approach to non-solvable base change and descent*, J. Ramanujan Math. Soc., Vol. 27, No. 2 (2012) 143-211.
- (18) (with M. Goresky) **Hilbert modular forms with coefficients in intersection homology and quadratic base change**, Progress in Mathematics, Vol 298, Birkhäuser, 2012.
- (19) *Intersection numbers of Hecke cycles on Hilbert modular varieties*, American J. Math., Vol. 129, No. 6 (2007), 1623–1658.
- (20) (with S. Basha, H. Nover, and E. Smith) *Systems of orthogonal polynomials arising from the modular j -function*, J. Math. Anal. Appl., Vol. 289, No. 1 (2004), 336–354.
- (21) (with K. Mahlburg) *Partition identities and a theorem of Zagier*, J. Combin. Theory Seri. A, 100 (2002), 27–43.
- (22) *Extension of a theorem of Kiming and Olsson for the partition function*, Ramanujan J., Vol. 5, No. 1 (2001), 47–51.
- (23) *On congruence properties of the partition function*, Int. J. Math. Math. Sci., Vol. 23, No. 7 (2000), 493–496.

Awards and Honors

NSF Individual Grant, DMS-2400550 (\$220,000) Duke University	2024-2027
NSF RTG Grant, DMS-2231514 (\$2,500,000) Duke University (Co-PI)	2023-2028
Enseignant Chercheur Invité (R. Beuzart-Plessis and V. Heiermann) Aix-Marseille Université (AMU), Marseille, France	Jan, Jun 2022
Visiting Associate Professor (Y. Choie) POSTECH Mathematics Institute (PMI), Pohang, South Korea	Spring 2021
Visitor (D. Kazhdan) Einstein Institute of Mathematics (EIM), Jerusalem, Israel	June 2019
NSF Individual Grant, DMS-1901883 (\$290,715) Duke University	2019–2022
Visitor, supported by the EIM (D. Kazhdan) Einstein Institute of Mathematics (EIM), Jerusalem, Israel	August 2018
Member of the IAS, supported in part by C. Simonyi Endowment Institute for Advanced Study (IAS), Princeton, NJ	Spring 2018
Visiting Scholar, supported in part by the KIAS (Y-S Choi) Korea Institute for Advanced Study (KIAS), Seoul, Korea	August 2016
NSF Individual Grant, DMS-1405708 (\$153,000) Duke University	2014–2018
Joint Winner of the Ferran Sunyer i Balaguer Prize (€15,000) Barcelona, Spain (with Mark Goresky at IAS)	2011
NSERC Discovery Grant (\$85,000) McGill University	2010–2015
NSF Postdoctoral Research Fellowship (\$108,000) Princeton University and IAS	2007–2010
Excellence in Mathematical Research Award (\$400) Department of Mathematics, University of Wisconsin at Madison	2007
NDSEG Fellowship (\$84,000) University of Wisconsin at Madison	2004–2007
Phi Beta Kappa member Harvard University	2004
Dean's List, Rank I (highest ranking) Harvard University	2000–2004
Detur Book Prize Harvard University	2002

Intel Science Talent Search (\$75,000) 2nd place	2000
Karl Menger Memorial Award International Science and Engineering Fair (administered by the AMS)	2000
International Science and Engineering Fair 2nd place overall	2000
International Science and Engineering Fair 1st place in Mathematics	2000

Postdocs Mentored

Winston Spencer Leslie (NSF Postdoc) First tenure track job at Boston College	2018–2022
Michael Lipnowski First tenure track job at McGill	2013–2016
Fritz Hoermann (McGill) First tenure track job at Universität Freiburg	2010–2011

Graduate Students Supervised

(1) HaoYun Yao	2023–present
(2) Bobby (Zixuan) Zhang	2023–present
(3) Jin Lee	2022–present
(4) Chun-Hsien Hsu Dickson Instructor at University of Chicago	2019–2024
(5) Pam (Miao) Gu Postdoc at University of Michigan, Ann-Arbor	2018–2023
(6) Chung-Ru Lee Postdoc at National University of Singapore	2016–2022
(7) Thomas (Huong) Tran Postdoc at University of Kentucky	2015–2020
(8) Jason Polák Postdoc at University of Melbourne	McGill, 2011–2016
(9) Maxime Turgeon, (MS) Biostatistics PhD student at McGill University	McGill, 2011–2013

Undergraduate Students Supervised

Lucas Fagan, Craig Fiedorek, Diego Sosa-Fundora, Tony Sun, Henry Zhang DOmath2019 program, Duke University	Summer 2019
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Trung Can, Ben Nativi, Gary Zhou DOMath2017 program, Duke University	Summer 2017
Josh Izzard PRUV program, Duke University	May 2013–Apr 2014
Jamie Klassen McGill University	Summer 2012

High School Students Supervised

Nolan Miranda	May 2016–Aug 2016
Angela Deng	May 2014–Dec 2015
Erik Anderson	2010–2011

Invited Talks

- (1) *The fiber bundle method applied to triple product L-functions: Application of the fiber bundle method* April 2024
Automorphic Forms and Trace Formulae
AMS Special Session, Howard University.
- (2) *The Poisson summation conjecture and the fiber bundle method* March 2024
Arithmetic Quantum Field Theory Program, Harvard CMSA.
- (3) *On the Poisson summation conjecture* February 2023
Geometric Methods in Representation Theory Seminar
University of North Carolina at Chapel Hill.
- (4) *Automorphic kernel functions supported on base changes and nonabelian trace formulae* October 2023
Automorphic forms, their arithmetic, and their applications,
AMS Special Session, Creighton University.
- (5) *Integral representations related to triple product L-functions* April 2023
Lie Theory Seminar, University of Minnesota.
- (6) *Fourier analysis beyond vector spaces* April 2023
Colloquium, University of Minnesota.
- (7) *Integral representations related to triple product L-functions* March 2023
Number Theory/Representation Theory Seminar, Boston College.
- (8) *Integral representations related to triple product L-functions* December 2022
Number Theory Seminar, POSTECH Math Institute (Virtual).
- (9) *Masterclass: Relative trace formulae (5 lectures)* Aug 2022
Mathematics Department, University of Copenhagen

- (10) *The Poisson summation conjecture* Jun 2022
 Sur l'équation fonctionnelle des fonctions L automorphes
 Course by Ngô B. C., Collège de France.
- (11) *Integral representations related to triple product L -functions* Jun 2022
 Seminar, Department of Mathematics, Université Aix-Marseille.
- (12) *Summation formulae for quadrics* Mar 2022
 Recent Developments in Automorphic Forms and Representations of p -adic Groups,
 AMS Special Session, Purdue University
- (13) *Summation formulae for quadrics* Jan 2022
 Periods, Functoriality and L -functions, CIRM, France
- (14) *Poisson summation formulae for flag and Schubert varieties* Nov 2021
 Colloquium, Department of Mathematics, Purdue University (Virtual)
- (15) *Beyond endoscopy and boundary terms in reductive monoids with a view towards nonabelian trace formulae* Nov 2021
 Basic Functions, Orbital Integrals, and Beyond Endoscopy, BIRS (Virtual)
- (16) *An approach to triple product L -functions* Oct 2021
 Number Theory Seminar, Rutgers University (Virtual)
- (17) *The Poisson summation conjecture for generalized Schubert varieties* Sep 2021
 Algebra and Number Theory Day, Johns Hopkins University
- (18) *Harmonic analysis on certain spherical varieties* July 2021
 Galois Representations and Automorphic Forms, MCA 2021 (Virtual)
- (19) *Harmonic analysis on certain spherical varieties* May 2021
 Relative Aspects of the Langlands Program, L -functions, and Beyond Endoscopy,
 CIRM (Virtual)
- (20) *New Avenues for the Circle Method (4 talks)* May 2021
 The Circle Method: Entering its Second Century, HCM (Virtual)
- (21) *Harmonic analysis on certain spherical varieties* Apr 2021
 Representation Theory and Number Theory Seminar, NUS (Virtual)
- (22) *Harmonic analysis on certain spherical varieties* Mar 2021
 Recent Developments in Automorphic Representations, AMS Session (Virtual)
- (23) *A Poisson summation formula for triples of quadratic spaces* Nov 2020
 Colloquium, Department of Mathematics, POSTECH (Virtual)
- (24) *A Poisson summation formula for triples of quadratic spaces* Oct 2020
 Trends in Arithmetic Geo. and Rep. Theory, KMS Special Session (Virtual)
- (25) *Summation formulae and triple product L -functions* Oct 2020
 Number Theory Seminar, POSTECH Math Institute (Virtual)
- (26) *On triple product L -functions* May 2020
 Joint Number Theory Seminar, Princeton and the IAS (Virtual)

- (27) *On triple product L-functions* May 2020
Number Theory Seminar, UCLA (Virtual)
- (28) *On triple product L-functions* Apr 2020
Number Theory and Representation Theory, University of Wisconsin (Virtual)
- (29) *Summation formulae for triples of quadratic forms* Mar 2019
Hawaii Number Theory Conference, University of Hawaii at Manoa
- (30) *Secondary terms for the number of solutions of quadratic forms* Jan 2019
On Counting Methods in Number Theory, Joint AMS-MAA meeting, Baltimore
- (31) *On triple product L-functions* Jan 2019
On the Langlands Program: Endoscopy and Beyond, IMS-NUS, Singapore
- (32) *On triple product L-functions* Dec 2018
BC-MIT number theory seminar, Boston College
- (33) *Proving summation formulae for spherical varieties (3 talks)* Sep 2018
Workshop on L-functions, Langlands functoriality and Trace formula,
including relative aspects, Porquerolles, France
- (34) *Summation formulae for triples of quadratic forms* June 2018
Geometric Representation Theory and the Langlands Program
Joint AMS-CMS Meeting, Fudan University, China
- (35) *Summation formulae and speculations on period integrals attached to triples of auto-
morphic representations* May 2018
Number Theory Seminar, Northwestern University
- (36) *Summation formulae and speculations on period integrals attached to triples of auto-
morphic representations* Apr 2018
Number Theory Seminar, University of British Columbia, Vancouver, Canada
- (37) *Summation formulae and speculations on period integrals attached to triples of auto-
morphic representations* Mar 2018
Joint Number Theory Seminar, Princeton University and the IAS
- (38) *Summation formulae and speculations on period integrals attached to triples of auto-
morphic representations* Mar 2018
Lie Groups Seminar, Cornell University
- (39) *Summation formulae and speculations on L-functions attached to triples of automor-
phic representations* Feb 2018
Joint Number Theory Seminar, Columbia, CUNY, NYU
- (40) *New families of period integrals for general linear groups* Feb 2018
Automorphic Forms and Representation Theory Seminar, Purdue University
- (41) *A summation formula for triples of quadratic spaces* Nov 2017
Group, Lie and Number Theory Seminar, University of Michigan
- (42) *A summation formula for triples of quadratic spaces* Nov 2017
Algebra and Number Theory Seminar, Yale University

- (43) *A summation formula for triples of quadratic spaces* Aug 2017
Automorphic Forms and Related Topics, Vietnam IASM (VIASM), Ha Long
- (44) *Summation formula for the Rankin-Selberg monoid via the circle method* May 2017
Harmonic analysis and the trace formula, MFO, Oberwolfach, Germany
- (45) *Summation formula for the Rankin-Selberg monoid via the circle method* May 2017
Automorphic forms and related topics, AMS Special Session, Hunter College
- (46) *Summation formula for the Rankin-Selberg monoid via the circle method* Feb 2017
Automorphic Forms and Representation Theory Seminar, Purdue University
- (47) *Triple product L-functions and limiting forms of trace formulae* Aug 2016
Number Theory Seminar, Korea Institute for Advanced Study (KIAS), Korea
- (48) *The Langlands Functoriality Conjecture* Aug 2016
Department Colloquium, Sookmyung Women's University, Seoul, Korea
- (49) *Triple product L-functions and limiting forms of trace formulae* Aug 2016
Number Theory Seminar, Yonsei University, Seoul, Korea
- (50) *Triple product L-functions and limiting forms of trace formulae* Mar 2016
Number Theory and Algebraic Geometry Seminar, Boston College
- (51) *Triple product L-functions and limiting forms of trace formulae* Mar 2016
Langlands Program Seminar, CUNY Graduate Center
- (52) *Triple product L-functions and limiting forms of trace formulae* Mar 2016
Automorphic Forms Workshop, Wake Forest University
- (53) *Four-variable automorphic kernel functions* Aug 2015
Illinois Number Theory Conference, UIUC
- (54) *Remarks on a paper of Frenkel, Langlands and Ngo* May 2015
Workshop on L-functions and trace formula, Purdue University
- (55) *Descent and base change with a view towards the Artin conjecture* Jan 2015
Department Colloquium, Emory University
- (56) *A nonabelian trace formula* July 2014
ELEFANT workshop, Hausdorff Center, Bonn, Germany
- (57) *A nonabelian trace formula* Dec 2013
Special Seminar, University of Chicago
- (58) *An approach to nonsolvable base change for $GL(2)$* Apr 2013
Lie Theory Seminar, University of Minnesota
- (59) *An approach to nonsolvable base change for $GL(2)$* Dec 2012
Number Theory Seminar, University of South Carolina
- (60) *An approach to nonsolvable base change for $GL(2)$* Oct 2012
Athens and Atlanta Number Theory Day, Emory University
- (61) *An approach to nonsolvable base change for $GL(2)$* Oct 2012
Midwest Number Theory Day, UIUC

- (62) *An approach to nonsolvable base change for $GL(2)$* Apr 2012
Number Theory Seminar, Harvard University
- (63) *Hilbert modular forms with coefficients in intersection homology* Mar 2012
SAGG, Laval University
- (64) *An approach to nonsolvable base change and descent* Feb 2012
Department Colloquium, Duke University
- (65) *An approach to nonsolvable base change and descent* Jan 2012
Department Colloquium, University of Maryland
- (66) *An approach to nonsolvable base change and descent* Jan 2012
Department Colloquium, Johns Hopkins University
- (67) *An approach to nonsolvable base change and descent* Nov 2011
Department Colloquium, Cornell University
- (68) *Distinction, special cycles, and twisted relative trace fomulae* May 2011
Number Theory Seminar, University of Chicago
- (69) *Twisted relative endoscopy* Mar 2011
Number Theory and Algebraic Geometry Seminar, Yale University
- (70) *Relative endoscopy and arithmetic of Shimura varieties* Oct 2010
Number Theory Seminar, Kyoto University
- (71) *Relative endoscopy and arithmetic geometry of Shimura varieties (3 talks)* Oct 2010
Special values of L -functions and arithmetic geometry, Miyama, Kyoto, Japan
- (72) *Elliptic descent of global orbital integrals* July 2010
Canadian Number Theory Association XI, Acadia University
- (73) *Twisted relative trace formulae* Oct 2009
Lie theory Seminar, Cornell University
- (74) *Twisted relative trace formulae with applications to unitary groups* Feb 2009
Algebraic Geometry and Number Theory Seminar, Johns Hopkins University
- (75) *Trace formulae and locally symmetric spaces* Jan 2009
Department Colloquium, Boston College
- (76) *Trace formulae and locally symmetric spaces* Dec 2008
Department Colloquium, McGill University
- (77) *Twisted relative trace formulae with applications to unitary groups* Dec 2008
Québec-Vermont Number Theory Seminar, McGill University
- (78) *Trace formulae and locally symmetric spaces* Dec 2008
Members Seminar, Institute for Advanced Study (IAS)
- (79) *Twisted relative trace formulae with applications to unitary groups* Nov 2008
Shimura Varieties and Trace Formula Seminar, IAS
- (80) *Twisted relative trace formulae with applications to unitary groups* Nov 2008
Number Theory and Representation Theory Seminar, University of Toronto

- (81) *Twisted relative trace formulae with applications to unitary groups* Nov 2008
Number Theory Seminar, McMaster University
- (82) *Twisted relative trace formulae with applications to unitary groups* Sep 2008
Number Theory Seminar, University of Maryland
- (83) *Twisted relative trace formulae with applications to unitary groups* Sep 2008
Automorphic Forms and Number Theory Seminar, University of Minnesota
- (84) *Twisted relative trace formulae* Sep 2008
Colloquium, University of Minnesota
- (85) *Twisted relative trace formulae with a view towards unitary groups* May 2008
Locally Symmetric Spaces, Banff International Research Station
- (86) *Jacquet-Langlands transfer and distinction* Feb 2008
Number Theory Seminar, UCLA
- (87) *Jacquet-Langlands transfer and distinction* Feb 2008
Number Theory Seminar, Caltech
- (88) *Relative trace formulae with a view towards Shimura varieties* Feb 2008
Number Theory and Representation Theory Seminar, University of Michigan
- (89) *Hilbert modular forms with coefficients in intersection homology* Nov 2007
Algebra and Number Theory Seminar, Penn State University
- (90) *Hilbert modular forms with coefficients in intersection homology* Oct 2007
Algebraic Geometry Seminar, Duke University
- (91) *Hilbert modular forms with coefficients in intersection homology* Sep 2007
Joint Number Theory Seminar, Princeton University and IAS
- (92) *Hilbert modular forms with coefficients in intersection homology* May 2007
Algebraic Geometry Seminar, University of Chicago
- (93) *Hilbert modular forms with coefficients in intersection homology* Mar 2007
Number Theory and Representation Theory Seminar, University of Toronto
- (94) *Hilbert modular forms with coefficients in intersection homology* Mar 2007
Automorphic Forms Seminar, University of Minnesota
- (95) *Hilbert modular forms with coefficients in intersection homology* Feb 2007
Number Theory Seminar, Boston College
- (96) *Intersection homology theory of Hilbert modular varieties* Jan 2007
Mathematics Seminar, Johns Hopkins University
- (97) *Hilbert modular forms with coefficients in intersection homology* Nov 2006
Automorphic Forms and Representation Theory Seminar, Purdue University
- (98) *Hilbert modular forms with coefficients in intersection homology* Oct 2006
Number Theory Seminar, The Ohio State University
- (99) *Hilbert modular forms with coefficients in intersection homology* July 2006
Arithmetic Geometry Seminar, Humboldt University, Germany

- (100) *Hilbert modular forms with coefficients in intersection homology* Apr 2006
Computational Arithmetic Geometry, AMS Special Session, San Francisco, CA
- (101) *Hilbert modular forms with coefficients in intersection homology* Apr 2006
Combinatorics, Algebra and Number Theory Seminar, Iowa State University
- (102) *Hilbert modular forms with coefficients in intersection homology* Jan 2006
Arithmetic Geometry and Modular Forms, AMS Special Session,
San Antonio, TX
- (103) *Introduction to intersection homology* Jan 2006
Mathematics Seminar, Osaka University
- (104) *Hilbert modular forms with coefficients in intersection homology* Jan 2006
Automorphic representations, L-functions, and Periods, RIMS, Kyoto, Japan
- (105) *Hilbert modular forms with coefficients in intersection homology* Dec 2005
Intersection of Arithmetic Cycles and Automorphic Forms, CRM
- (106) *Hilbert modular forms with coefficients in intersection homology* Nov 2005
Number Theory Seminar, Johns Hopkins University
- (107) *Hilbert modular forms with coefficients in intersection homology* Nov 2005
Number Theory Seminar, Brown University
- (108) *Hilbert modular forms with coefficients in intersection homology* Oct 2005
Number Theory Seminar, UCLA
- (109) *Intersection numbers of Hecke cycles on Hilbert modular varieties* Oct 2005
NSF Focused Research Group workshop, University of Maryland
- (110) *Intersection numbers of Hecke cycles on Hilbert modular varieties* Mar 2005
Number Theory Seminar, University of Rochester
- (111) *Intersection numbers of Hecke cycles on Hilbert modular varieties* Feb 2005
Number Theory Seminar, University of Wisconsin
- (112) *Classical and p -adic modular forms arising from the Borcherds exponents of other modular forms* Apr 2004
Joint Trivial Notions and Modular Seminar, Harvard University
- (113) *Systems of orthogonal polynomials arising from the modular j -function* Jan 2004
Continued Fractions, AMS Special Session, Phoenix, AZ
- (114) *Systems of orthogonal polynomials arising from the modular j -function* Sep 2003
Modular Curves Seminar, Harvard University
- (115) *Systems of orthogonal polynomials arising from the modular j -function* July 2003
Number Theory Seminar, University of Wisconsin
- (116) *A generalization of a theorem of Rankin and Swinnerton-Dyer on zeros of modular forms* July 2002
Number Theory Seminar, University of Wisconsin

- (117) *Partition identities and a theorem of Zagier* Nov 2001
 Modular Forms Seminar, Harvard University
- (118) *Partition identities and a theorem of Zagier* Nov 2001
 Math Table Seminar, Harvard University
- (119) *Partition identities and a theorem of Zagier* July 2001
 Number Theory Seminar, University of Wisconsin

Other Talks and Lectures

- Why and how to be a mathematician
 with vignettes from the Langlands program* Oct 2023
 Graduate Research Opportunities Workshop (GROW), Duke University
- Summation formula for spherical varieties* Sep 2018
 Number Theory Seminar, Duke University
- An invitation to modern number theory via elliptic curves* June 2018
 Summer Workshop in Math for female high school students, Duke University
- An approach to nonsolvable base change for $GL(2)$* Feb 2013
 Graduate & Faculty Seminar, Duke University
- Intersection homology for Hilbert modular varieties* Apr 2011
 Montreal-Toronto Meeting on Hilbert modular varieties, Fields Institute
- Relative endoscopy and arithmetic of Shimura varieties* Sep 2010
 Montreal-Toronto Meeting on Arithmetic of Shimura varieties, CRM
- Hilbert modular forms with coefficients in intersection homology* Oct 2006
 Midwest Number Theory Conference IV, UIUC
- Hilbert modular forms with coefficients in intersection homology* July 2006
 Recent Developments in the Arithmetic of Shimura Varieties and Arakelov
 Geometry, CRM, Bellaterra, Spain
- Intersection numbers of Hecke cycles on Hilbert modular varieties* Nov 2005
 Midwest Number Theory Conference III, University of Wisconsin
- Intersection numbers of Hecke cycles on Hilbert modular varieties* Apr 2005
 ArithmeTexas, Texas A&M
- Intersection numbers of Hecke cycles on Hilbert modular varieties* Mar 2005
 19th Annual Automorphic Forms Workshop, UTexas at Denton
- Intersection numbers of Hecke cycles on Hilbert modular varieties* Feb 2005
 Midwest Number Theory Conference II, UIUC
- Systems of orthogonal polynomials arising from the modular j -function* Nov 2004
 Additive Number Theory Conference, University of Florida
- Systems of orthogonal polynomials arising from the modular j -function* Sep 2003
 Big Sky Conference on Discrete Math, University of Montana

Professional Service

Founder and Organizer of the Duke Research Scholars program Duke University	2023-2024
Faculty Leader for DOrmath2019 program Duke University	Summer 2019
Co-Organizer of AMS session on Recent developments in Automorphic Forms University of Hawaii, Manoa	Mar 2019
Pure ARP Search Committee Duke University	Jan 2018
Faculty Leader for DOrmath2017 program Duke University	Summer 2017
Member of Graduate Admission Committee Duke University	2016–2017
Co-Organizer of AIM Workshop on Automorphic Kernel Functions American Institute of Mathematics	Nov 30–Dec 4, 2015
Pure ARP Search Committee Duke University	Jan 2015
Co-Organizer of AMS Session on Automorphic Forms and Related Topics University of North Carolina at Greensboro	Nov 2014
Co-Founder and Co-Organizer of UNC-Duke Number Theory Seminar Duke University	2012–present
Organizer of Algebraic Geometry Seminar Duke University	Fall 2012–present
Pure ARP Search Committee Duke University	Jan 2013
Member of Teaching Awards Committee McGill University	Fall 2011–Winter 2012
Member of Computing and Equipment Committee McGill University	Winter 2010
Co-Organizer of Québec-Vermont Number Theory Seminar McGill University	Fall 2010–Winter 2012
Co-Organizer of the Bellairs Workshop in Number Theory Barbados	May 2011
Co-Organizer of CRM-ISM Colloquium McGill University	Fall 2010–Winter 2011
Co-Organizer of Joint Number Theory Seminar Princeton University and IAS	Fall 2007–Fall 2009
Reviewer for NSF grant proposals	

Reviewer for NSA grant proposals

Refereeing work

Advances in Mathematics
Algebra and Number Theory
American Journal of Mathematics
Annales mathématiques du Québec
Annals of Mathematics Studies
Bulletin of the London Mathematical Society
Canadian Mathematical Bulletin
Compositio Mathematica
Documenta Mathematica
Duke Mathematical Journal
Forum Mathematicum
International Journal of Number Theory
Journal of Algebra and its Applications
Journal of the Mathematical Society of Japan
Journal of Number Theory
Mathematische Zeitschrift
Mathematische Annalen
Pacific Journal of Mathematics
Proceedings of the American Mathematical Society
Science China Mathematics
Transactions of the American Mathematical Society

Further Activities

Arithmetic Quantum Field Theory Program Invited visitor, Harvard CMSA	Mar 2024
The 45th KAST International Symposium: Periods of Automorphic Forms Participant, Korean Academy of Science and Technology (Virtual)	Feb 2021
Conference on Representation Theory and Algebraic Analysis Participant, Weizmann Institute of Science (Virtual)	May 2020
The Sixth Abel Conference: A mathematical celebration of Langlands Invited participant, IMA, University of Minnesota, Twin City	Nov 2018
Representation Theory and Analysis in Locally Symmetric Spaces Participant, Institute for Advanced Study	Mar 2018
Functoriality and the Trace Formula Invited participant, American Institute of Mathematics	Dec 2017
Mod p/p -adic Langlands Programs Participant, Korea Institute for Advanced Study (KIAS)	Aug 2016

Analysis, Spectra and Number Theory (in honor of Peter Sarnak) Participant, Princeton University and IAS	Aug 2016
Greater Metropolitan New York Math Fair Judge, Brooklyn Technical High School	Mar 2009
The Stable Trace Formula, Automorphic Forms, and Galois Representations Participant, Banff International Research Station	Aug 2008
Recent Developments in Number Theory: Selmer Groups, L -functions, and Galois Deformations Participant, UCLA	Mar 2008
The Tate Conjecture Participant, American Institute of Mathematics	July 2007
Automorphic Galois Representations, L -functions and Arithmetic Participant, Columbia University	June 2006
Advanced Course on Arakelov Geometry and Shimura Varieties Participant, CRM, Barcelona, Spain	Feb 2006
NSF Give a Day, Make a Difference Outreach Invited panelist with Leon Lederman (1988 Nobel Laureate in Physics) and Ken Ono, Missoula, MT	May 2004
Research Experience for Undergraduates in Number Theory Participant, University of Wisconsin	Summer 2003
CBMS–The Web of Modularity Participant, UIUC	June 2003
Math Tutor and general instructor of the After School Program Peabody Middle School	Fall 2002, Fall 2003, Spring 2004
Exchange Student in Mathematics Budapest Semesters in Mathematics	Spring 2003
International Mathematics Olympiad Awards Ceremony Student research invited speaker, Washington, DC	July 2001
NSF 50 Scientists and Engineers in the Schools Outreach Invited panelist with Leon Lederman (1988 Nobel Laureate in Physics) and Ken Ono, Missoula, MT	May 2001
Honored by Japanese American Citizens League for work memorializing the unjust internment of Japanese Americans during World War II Missoula, MT	2000