

# CURRICULUM VITAE

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## Academic Affiliation:

- *University of Wisconsin at Madison*, Chair, Spring 2018- Spring 2020 .
- *University of Wisconsin at Madison*, Associate Chair, 2016- Fall 2017.
- *University of Wisconsin at Madison*, Associate Chair, 2010-11.
- *University of Wisconsin at Madison*, Professor. 2007-present.
- *University of Wisconsin at Madison*, Associate Professor. 2003-07.
- *University of Wisconsin at Madison*, TT Assistant Professor, 2000-03.
- *Harvard University*, Amer. Math. Soc. Centennial Fellow, 1999-2000.
- *SUNY at Stony Brook*, TT Assistant Professor, 1998-2001.
- *University of Michigan at Ann Arbor*, Hildebrandt Research Assistant Professor, 1996-98.
- *Institute for Advanced Study*, Membership, 1995-1996.
- *The University of Science and Technology of China*, Hefei, China, 1987-1990.

## Education:

- *University of Maryland*, College Park, MD, 1991-95, Ph.D. in Math.
- Dissertation: "Theta liftings and  $L$ -functions of Elliptic Curves".
- Thesis advisor: Stephen Kudla
- *Anhui Normal University*, Anhui, China, 1984-87, M.S. in Math..
- *Huizhou Teacher's Academy*, Anhui, China, 1978-80, Math. Education.

**Research Interests:** Number Theory, Arithmetic Geometry,  
Representation Theory.

**Membership:** Member of the American Mathematical Society, since 1992

**Editors**

- **Quarterly Journal of Pure and Applied Mathematics**, Editor (2004–)

- **Abhandlungen aus dem mathematischen Seminar der Universitaet Hamburg**, 2007–.

**Honors, Grants and Awards:**

- **Fellow of American Mathematical Society**, 2019—
- UW-Madison graduate school grant (supporting 1 RA for a year), 2012-13.
- Van Vleck Research Prize, Department of Mathematics, University of Wisconsin at Madison, 2011-2015.,
- Vilas Life Cycle Professorship, UW-Madison, 2006-07.
- National Science Foundation Focused Research Group grant (with Steve Kudla, Ken Ono, and Shou-Wu Zhang), DMS-0354353, July 2004— June 2007
- **Amer. Math. Soc. Centennial Fellowship**, 1999-2000.
- National Science Foundation Grant DMS-1762289, June 2018-May 2021.
- National Science Foundation Grant DMS-1500743, June 2015-May 2018.
- National Science Foundation Grant, July 2012-June 2015.
- National Science Foundation Grant DMS-0855901, July 2009-June 2012.
- National Science Foundation Grant DMS-0555503, July 2006-June 2009.
- National Science Foundation Grant DMS-0302043, July 2003—July 2006.
- National Science Foundation Grant DMS-0070476, July 2000—July 2003.
- National Science Foundation Grant DMS-9700777, July 1997—July 2000.
- UW-Madison graduate school research grant, 2012-13. supporting 2 RAs

- UW-Madison Graduate School grant, July 2009-June 2010 (supporting one RA).
- National Security Agent grant, Feb. 2004-Jan. 2006,
- Shanghai Bai Yu Lan Fellowship, 2002.
- Special Amer. Math. Soc. ICM Travel Grant, Aug. 18-27, 1998.
- Rackham Faculty Fellowship (U. Michigan at Ann Arbor), 1997.

### Publications and Preprints:

#### Books:

- (1) (with S. Kudla and M. Rapoport), Modular forms and special cycles on Shimura curves, *Annals of Mathematics Studies Series 161*, Princeton University Press, 2006, pp383.
- (2) (with B. Howard), Intersections of Hirzebruch-Zagier divisors and CM cycles, *Lecture Notes in Mathematics 2041*(2012), Springer, New York, pp145
- (3) (ed. with J. Cogdell, J. Funke, and M. Rapoport), Arithmetic geometry and automorphic forms, in honor of Stephen Kudla's 60th birthday. *Advanced Lectures in Mathematics 19*(2011), pp557. Higher Education Press, Beijing, and International Press, Boston.

#### Papers:

- (1) Cocritical modules and finiteness relative to a module, *Comm. Algebra* (1989), 217-235.
- (2) (with H. Tang and J. Chen) Flat modules and ML modules relative to an hereditary torsion theory, *J. Math* (Chinese) 12 (1992), 213-220.
- (3) On the algebraic structure of group rings, *J. University of Science and Technology of China*, (1990) 1-8.
- (4) On noncommutative semicoherent rings, *Chinese Ann. Math. Ser.A* 10 (1989), 148-152.
- (5) (with H. Tang and J. Chen)  $F_p^*$ -injective, fp-flat modules and coherent rings, *J. Anhui Normal Univ.* 1(1988), 1-7.
- (6) (with H. Tang and J. Chen)  $F_p^*$ -injective dimension, and FPQ ring, *J. Anhui Normal Univ.* 2(1987), 11-16.
- (7) (with J. Chen) Weakly globally homological dimension and direct(inverse) limits, *J. Anhui Normal Univ.* 4(1986), 79-85.
- (8) (with J. Chen) Some results on coherent rings, *J. Anhui Normal Univ.* 4(1986), 73-78.
- (9) Cusp forms of weight 1 associated to the Fermat curves, **Duke Math. Jour.**, 83(1996) 141-156.

- (10) Theta liftings and Hecke L-functions, **J. Reine Angew. Math.**, **485(1997) 25-53.**
- (11) (with F. Rodriguez Villegas) Central values of Hecke L-functions of CM number fields, **Duke Math. J.**, **98(1999), 541-564.**
- (12) Nonvanishing of central Hecke L-value and rank of certain elliptic curves, **Compositio Math.**, **117(1999)337-359.**
- (13) Eigenfunctions of Weil representation of unitary groups of one variable, **Trans. Amer. Math. Soc.**, **350(1998)2393-2407**
- (14) Common zeros of theta functions and central Hecke L-values of CM number fields of degree 4, **Proc. Amer. Math. Soc.**, **126(1998)999-1004**
- (15) An explicit formula for local densities of quadratic forms, **J. number theory** 72 (1998)309-356.
- (16) (with S. Kudla and M. Rapoport) On the derivative of an Eisenstein series of weight one, **Intern. Math. Res. Notices** 7(1999) 347-385
- (17) The Central Derivative of Hecke L-series, **J. number theory**, 85(2000) 130-157.
- (18) (with S. Miller) Nonvanishing of the central derivative of canonical Hecke L-functions, **Math. Research letters** 7(2000)263-277
- (19) On existence of algebraic Hecke characters, **C.R. Acad. Sci. Paris, Series I** 332(2001)1041-1046.
- (20) Taylor expansion of Eisenstein series, **Trans. Amer. Math. Soc.**, 355 (2003)2663-2674.
- (21) (with Jorge Jimenez-Urroz) The Heegner zeros of theta functions, **Trans. Amer. Math. Soc.**, 355 (2003) 4137-4149.
- (22) (with M. Stoll) The L-value of the curves  $y^2 = x^5 + A$ , **J. London Math. Soc.** 68 (2003), 273-287.
- (23) On CM abelian varieties over an imaginary quadratic field, **Math. Ann.** 329(2004), 87-117.
- (24) (with S. Kudla and M. Rapoport) The derivative of Eisenstein series and the Faltings's heights, **Compos. Math.**, 140 (2004), 887-951.
- (25) The derivative of Zagier's Eisenstein series and Faltings' height, **in Heegner points and Rankin L-series, MSRI Publ. 49** (H. Darmon and S.W. Zhang eds.), 271-284.
- (26) On 2-adic local density of quadratic forms, **J. Number Theory**, 108(2004), 287-345.

- (27) CM number fields and modular forms, **Quarterly Jour. Pure Appl. Math.** special issue in memory of A. Borel 1(2005), 305-340.
- (28) (with J. Bruinier) CM-values of Hilbert modular functions, **Invent. Math.** 163(2006), 229-288.
- (29) (with N. Elkies, K. Ono) Reduction of CM elliptic curves and modular function congruences, **Int. Math. Res. Not.** 44 (2005), 2695-2707.
- (30) (with J. Bruinier) Twisted Borcherds products on Hilbert modular surfaces and their CM values, **Amer. J. Math.**, **129**(2007), 807-841.
- (31) Hilbert modular functions and their CM values, **Proc. of the 3rd ICCM**, AMS/IP Studies in Adv. Math. 42(2008), 135-154.
- (32) (with K. Bringmann) On Jacobi Poincaré series of small weight, **Int. Math. Res. Not.** 2007, no. 6, Art. ID rnm018, 21 pp.
- (33) Minimal CM liftings of supersingular elliptic curves, **Pure Appl. Math. Q.** 4 (2008), 1317–1326.
- (34) (with J. Bruinier) Faltings' height of CM cycles and derivatives of L-series, **Invent. Math.**, 177(2009), 631–681.
- (35) Chowla-Selberg Formula and Colmez's Conjecture, **Canad. J. Math.** 62(2010), 456–472
- (36) An arithmetic intersection formula on Hilbert modular surfaces, **Amer. J. Math.**, 132(2010), 1275–1309.
- (37) (with S. Kudla) Eisenstein series for  $SL_2$ , **Science of China (mathematics)**, a special volume in honor of Yuan Wang's 80th birthday. 53 (2010), 2275–2316.
- (38) (with J. Bruinier), CM values of automorphic Green functions on orthogonal groups over totally real fields, in Arithmetic geometry and automorphic forms, in honor of Stephen Kudla's 60th birthday. **Advanced Lectures in Mathematics 19** (2011), 1–54.
- (39) (with Ben Howard) Singular moduli refined, in 'Arithmetic Geometry and Automorphic forms' in honor of Stephen S. Kudla's 60th birthday, **Advanced Lectures in Mathematics 19** (2011), 367–406.
- (40) (with K. Lauter), Computing genus 2 curves from invariants on the Hilbert moduli space, **J. Number Theory** 131(2011), 936-958.
- (41) (with BD Kim and R. Masri) Nonvanishing of Hecke  $LL$ -functions and the Bloch-Kato conjecture., **Math. Ann.**, 349 (2011), 301–143.

- (42) (with R. Masri), Nonvanishing of Hecke L-functions for CM fields and ranks of abelian varieties, **Geom. Funct. Anal.** 21 (2011), 648–679.
- (43) (with J. Bruinier and S. Kudla), Big CM values of automorphic greens functions, **Intern. Math. Res. Notices** (2012), no. 9, 1917–1967.
- (44) (with S. Kudla), on the pullback of an arithmetic theta function, **Manuscripta Math.** 140 (2013), 393–440
- (45) Arithmetic intersection and Faltings’ height, **Asian J. Math.**, 17(2013), 335–382
- (46) Harmonic weak Maass forms, Automorphic Green functions, and period integrals, in *Number theory and related areas*, 199—223, **Adv. Lect. Math.** (ALM), 27, Int. Press, Somerville, MA, 2013.
- (47) (with Tuoping Du), Quaternions and Kudla’s matching principle, **Math. Res. Lett.** 20 (2013), 367–383.
- (48) (with C. Costello, A. Deines-Schartz, and K. Lauter), Constructing abelian surfaces for cryptography via Rosenhain invariants. **LMS J. Comput. Math.** 17 (2014), no. A, 157–180.
- (49) (with J. Bruinier and B. Howard), Heights of Kudla-Rapoport divisors and derivatives of  $L$ -functions, **Invent. Math.** 201(2015), 1–95.
- (50) (with K. Lauter and M. Naehrig), Hilbert theta series and Igusa invariants, **J. Number Theory**, 161(2016), 146–174.
- (51) (with Hongbo Yin), Some non-congruence subgroups and their modular curves, **J. Number Theory**, 161 (2016), 17–48.
- (52) Rational structure of  $X(N)$  over  $Q$  and Explicit Galois action on CM points, **Chin. Ann. Math. Ser. B** 37 (2016), 821–832.
- (53) (with Hongbo Yin), CM number fields of Dihedral type and Colmez conjecture, **Manuscripta Math.** 156 (2018), 1–22.
- (54) (with Hongbo Yin), Difference of modular functions and their CM value factorization, **Trans. AMS**, 371(2019)3451–3482 .
- (55) (with Dongxi Ye), Weakly holomorphic modular forms on  $\Gamma_0(4)$  and Borcherds Products on Unitary Group  $U(2, 1)$ , **Res. Number Theory** 4 (2018), no. 1, Art. 2, 25 pp.
- (56) (with Tuoping Du), Arithmetic Siegel-Weil formula for  $X_0(N)$ , **Adv. Math.** 345 (2019), 702–755.
- (57) (with Tuoping Duo), Twisted arithmetic Siegel-Weil formula for  $X_0(N)$ , **J. number theory**, 203 (2019), 95–117

- (58) (with Hongbo Yin and Peng Yu), The lambda invariants at CM points, **Intern. Math. Res. Notices** , 2021 (7), 5542—5603. <https://doi.org/10.1093/imrn/rnz230>
- (59) (with J. Bruinier, B. Howard, S. Kudla, M. Rapoport), Modularity of generating series of divisors on unitary Shimura varieties, **Astérisque** No. 421 (2020)7-125.
- (60) (with J. Bruinier, B. Howard, S. Kudla, M. Rapoport), Modularity of generating series of divisors on unitary Shimura varieties II, Arithmetic Applications, **Astérisque** No. 421 (2020), 127–186.
- (61) (with J. Bruinier) Arithmetic degrees of special cycles and derivatives of Siegel Eisenstein series, pp60, 2018, accepted to appear in **J. European Math. Soc.**
- (62) (with Yingkun Li) On the Yui-Zagier conjecture, accepted to appear in **Algebra and Number Theory** 14(2020), 2197—2238
- (63) (with Jan Bruinier and Stephan Ehlen) CM values of higher automorphic Green functions for orthogonal groups, accepted to appear in **Invent. Math.** (2020), pp 72.

### Preprints

- (1) (with Qiao He and Yousheng Shi), the Kudla-Rapoport conjecture at a ramified prime, submitted(2020), pp32.
- (2) (with S. Kudla), pull-back of arithmetic theta functions and 2nd term of L-functions, in progress.

### Postdocs Advising

Yousheng Shi (graduated from University of Maryland in 2019)

Sean Rostami (graduated from University of Maryland in 2012)

Riad Masri (graduated from U. Texas at Austin in 2005, next job: tenure track assistant professor at Texas A & M).

Yannan Qiu (graduated from Columbia University in 2005, next job: Columbia U. visiting assistant professor).

### Former Graduate Students:

**Taliesin Sutton**, PhD, Spring 2006.

Thesis: AUTOMORPHIC FORMS ON QUATERNION ALGEBRAS AND CENTRAL L-VALUES

First Job: University of Arizona (Postdoc)

**Benjamin Kane**, PhD, Spring 2007.

Thesis: Computationally Feasible Bounds for Representations of Integers by Ternary Quadratic Forms and CM Lifts of Supersingular Elliptic Curves

First Job: Radboud University in Nijmegen, the Netherlands (postdoc),

Now associate professor at Hong Kong University.

**Michael Woodbury**, Spring 2011

Thesis: Triple L-function.

First Job: Ritt Assistant Professor, Columbia University,

2nd job: University of Cologne, visiting assistant professor.

**Jie Ling**, Summer, 2012

Thesis: Arithmetic intersection and resultants.

First Job: Epic, now at Microsoft

**Luanlei Zhao**, Spring 2013

Thesis: Period integral of automorphic Green functions.

First Job: Oracle

**Fan Zheng** Summer 2015.

Thesis: On construction of eigenfunctions of Weil representations over p-adic fields.

**Yueke Hu**, Summer 2015.

Thesis: Period integrals, L-functions, and applications to subconvexity bounds and Mass equidistribution.

First Job: Max-Planck-Institut-fur-Mathematik, Bonn, Germany.

Second Job: ETH, Switzerland, 3 year postdoc, and one semester MSRI postdoc (Spring 2017)

**Peng Yu**, Summer 2017,

Thesis: CM values of regularized theta liftings.

First Job: Morningside Center of Mathematics, Academy of Science, Beijing, China.

**Dongxi Ye**, Spring 2018,

Thesis: Modular forms, Borcherds lifts, Gross-Zagier type CM value formulas

First Job: Sun Yat-Sen University at Zhu Hai, China. Tenure track.

**Current Graduate Students :**

Solly Parenti, PhD student, 6th year

Qiao He, PhD Student, 3rd year.

**Invited Talks:**

2021:

- (1) Fields workshop on Theta series, Fields Institute, Canada, July 5-9, 2021.
- (2) Oberwolfach workshop on Moduli spaces and Modular forms, Oberwolfach, Germany, Jan 31-Feb. 6, 2021.
- (3) AIM workshop on Arithmetic intersection theory on Shimura varieties, AIM, Jan. 4-8, 2021.



2020:

- (1) Number Theory seminar, Southeast University of China, Nanjing, China, 2020.
- (2) Columbia/NYU/CUNY Number Theory Seminar, Dec. 17, 2020.
- (3) Number Theory Seminar, Renmin University, Beijing, China, Dec. 3, 2020
- (4) AIM SQuare meeting, AIM, April 30-May 4, Cancelled.

2019:

- (1) Modular forms workshop at Oberwolfach, Germany, Dec. 15-21, 2019
- (2) Shandong University, Nov. 12, 2019.
- (3) Colloquium at Beijing Normal University, July 12, 2019
- (4) Morningside Center of Mathematics in Beijing, July 2019, two talks.
- (5) AIM SQuare week (April 26-May 2) on Shimura varieties, cancelled
- (6) Canada Annual Math Meeting, June 5-8, postponed to next year.

2018:

- (1) The Legacy of Joseph Fourier after 250 year, Sanya, China, Dec 17-21.
- (2) Colloquium, Wu Han University, Wu Han, China, Dec. 27.
- (3) Morningside Center of Mathematics at Beijing, July 25, China.
- (4) Nanjing University Number Theory Seminar, July 9, Nanjing, China.
- (5) Two lectures on Chowla Selberg formula and Colmez Conjecture, July 5, Shandong University at Weihai, China.
- (6) Number Theory Seminar, June 28, Northwestern University, Xian, China.
- (7) Number theory seminar, Taiwan Academy of Science, Jan. 12. Taipei.

2017:

- (1) A series of three lectures on arithmetic Siegel-Weil formulas, Morningside Center of Mathematics at Beijing, China, July 12-24.
- (2) Workshop on arithmetic of automorphic forms (a series of 3 lectures), Harbin, China, June 26-30.
- (3) Modular form Conference at Koyto University, Koyto, Japan, June 16-18, 2017.

- (4) "Perspectives of Mathematics in the 21st Century: Conference in Celebration of the 90th Anniversary of Mathematics Department of Tsinghua University", Tsinghua University, China, April 22-24.
- (5) Workshop on Heights and Applications to Unlikely Intersections, Fields Institute, Toronto, Canada, Feb. 13-17.

## 2016

- (1) Hefei Industrial University Algebra seminar, Hefei, China, July 8th.
- (2) Morningside Center of Mathematics number theory seminar, Beijing, China, June 28th.
- (3) Beijing-Shanghai annual workshop on number theory, June 25-26, Capital Normal University (2 lectures), China.
- (4) University of Cologne Algebra seminar, Germany, June 13th.
- (5) University of Heidelberg number theory seminar, Germany, June 1st.
- (6) Oberwolfach workshop on modular forms, Germany, April 24-30.
- (7) Stanford Joint Number Theory/Algebraic Geometry seminar, Jan. 16.

## 2015

- (1) Princeton/IAS joint number theory seminar, Dec. 3.
- (2) AIM Square Meeting, Nov. 9-13.
- (3) AMS Special session 'Automorphic Forms and Representations', Loyola University, Oct. 3-4.
- (4) Workshop on Modular Forms and Curves of Low Genus: Computational Aspects. ICERM (Brown University), Sept. 28-Oct. 3.
- (5) The Math Institute at the Academy of Science, Beijing, China, July 10.
- (6) Nanjing Normal University, Number Theory seminar, June 23.
- (7) Anhui Normal University, Colloquium, June 15.
- (8) Nanjing University, Nanjing, China, Number Theory seminar, June 12.
- (9) Southeast University, Nanjing, China, Algebra Seminar, June 12.
- (10) ESI workshop on automorphic representation and Shimura varieties, Vienna, Austria, May 14-29, 2015 (did not make it).
- (11) CRM workshop on Kudla program, April, 6-10, 2015, McGill University.

2014:

- Workshop on arithmetics of Eisenstein series, Darmstadt Tech. U., Germany, Sept. 22-25.
- Number Theory Seminar, University of Chicago, Nov. 11.
- Number Theory Seminar, Northwestern University, Nov. 10.
- Number Theory Seminar, Purdue University, Oct. 30.
- Number theory seminars (2), Morningside Center of Mathematics, Beijing, China, August 22, 23, 2014.
- Number theory seminar, Hong Kong UST, Hong Kong, July 7, 2014.
- Introduction to Modern Mathematics, Tsinghua U, China, July 4, 2014.
- Oberwolfach Workshop on Shimura varieties and automorphic forms, April 27-May 3, Germany.
- Humboldt University number theory seminar, April 22, Berlin, Germany.
- ETH Number Theory seminar, March 28, ETH, Zurich, Switzerland.
- MPIM Number Theory Seminar, Feb. 26, Bonn, Germany.
- University of Bonn workshop on arithmetic and automorphic aspect of Shimura varieties, Feb. 3-7, Bonn, Germany.

2013:

- University of Utah colloquium, Dec. 12.
- Brigham Young University number theory seminar, Dec. 10.
- UBC number theory seminar, Canada, Nov. 21.
- University of Washington number theory seminar, Oct. 15.
- Caltech Number Theory Seminar, Oct. 1.
- Number Theory Workshop at Morningside Center of Math., Beijing, China, Aug. 13-19.
- The 6th international Congress of Chinese Mathematicians, Taipei, July 14-19.
- NCTS Special Week in Arithmetic and Number Theory, Hsin-Chu, Taiwan, July 8-12.
- Beijing University, Beijing, China, June 13.
- Tsinghua University, Beijing, China, June 14.
- Wu Wenjun lecture, USTC, Hefei, China, May 29.
- Hefei Industrial University, Hefei, China, May 30.
- Bellairs Workshop in Number Theory, Barbados, May 3-10 (declined).
- Gromov-Witten invariants and number theory, AIM, April 1-5 (declined).
- AMS Special Session, Jan. 9-12.

2012:

- LSU colloquium, Nov. 8.
- Northwestern University Number Theory Seminar, Oct. 8.
- Workshop on modular forms, Kyushu University, Japan, Sept. 28-30.
- Beijing workshop on Shimura varieties and automorphic forms, Aug. 12-20.
- The Morningside Center of Mathematics Number Theory Seminar, Beijing, July 4.
- Croatia's 5th Congress of Mathematics, June 18-21.
- University of Rome I algebra seminar, June 5.
- BIRS Workshop on Arithmetic geometry of orthogonal and unitary Shimura varieties, June 3-8 (declined)
- Number Theory seminar at U. Colgne, Germany, May 18.
- Joint Number Theory and Math. Physics seminar, U. Michigan, Feb. 13.
- ESI workshop on automorphic representation and Shimura varieties, Vienna, Austria, Jan. 8-20

2011:

- BIRS Workshop on Cycles on modular varieties, Nov. 3-10.
- Boston University Algebra seminar, Oct. 17.
- Lecture series focused on "modular forms and their geometric applications" in KIAS, Seoul, Korea, August 24– 31 (declined).
- Conference on Galois representations and related topics June 20-23, 2011, at NCTS, Taiwan, June 20-23.
- Prof. Keqin Feng's 70th birthday conference, USTC, Hefei, China, June 7-12.
- Colgne University Number Theory Seminar, Colgne, Germany, May 17.
- Number Theory Seminar, University of Maryland at College Park, May 5.
- AMS special meeting, Iowa, March 17-21 (declined).
- ICTP Conference on Modular Forms and Mock Modular Forms and their Applications in Arithmetic, Geometry and Physics, ICTP, Italy, March 13-18.
- Overwolfach Workshop on Shimura varieties, March 7-12.
- Texas A&M Number Theory seminar, Feb. 16

2010:

- The Morningside Center of Mathematics Number Theory Seminar, Beijing, China, August 7, 2010.
- Capital Normal University number theory seminar, Beijing, China, July 2, 2010.

- UIC workshop in number theory and arithmetic geometry, May 1.
- University of Michigan number theory seminar, April 12, 2010.
- AIM workshop on Mock modular forms in combinatorics and arithmetic geometry, March 8-12, 2010
- The Ohio State University Number Theory Seminar, Feb. 22.
- Special session in arithmetic geometry in AMS annual meeting, San Francisco, Jan. 14, 2010 (declined).
- Colloquium, University of Pittsburgh, Jan. 7, 2010.
- 2009:
  - Workshop on L functions, Galois representations and Shimura varieties, Barcelona, Spain, Dec. 14-19, 2009.
  - Colloquium, Math Institute, AMSS, Academy of Science, Beijing, China, July 24, 2009.
  - Pohang-KIAS International Workshop on number theory, June 26-28, Pohang, Korea, 2 lectures.
  - Distinguished Lecture Series, Math Center, Beijing University, June 2009, a series of 6 lectures (2 hour each).
  - International conference on "Mock theta functions and applications in combinatorics, algebraic geometry, and mathematical physics", May 25-29, 2009.
  - The Bellairs workshop on Borcherds products and arithmetic geometry, May 3-10, 2009.
  - The Palmetto Number Theory Series (PANTS), University of South Carolina, Clemson and College of Charleston, Feb. 7-8.
  - Algebra Seminar, Clemson University, Feb. 5.
  - Research Seminar, Microsoft, Jan. 14.
- 2008:
  - A series of three lectures, Pohang-KIAS joint number theory workshop, Dec. 4-6, Pohang, Korea. declined.
  - Joint Columbia-CUNY-NYU number theory seminar, Columbia U., Nov. 20.
  - Princeton-IAS joint number theory seminar, Nov. 13, Princeton.
  - Algebra Seminar, U. Pittsburgh, Oct. 23.
  - A series of 10 hour lectures, Department of Education (of China) graduate summer school, USTC, Hefei, China, July 20-July 26.
  - A series of 4 hour lectures, Morningside Center of Mathematics, Beijing, June 29-July 2.
  - Colloquium, AMSS, Beijing, China, June 26.
  - Joint AMSS and Capital Normal University Number Theory Seminar, Beijing, China, June 18.
  - Colloquium, Wesleyan University, May 1.

- Number theory seminar, McGill Univ. Canada, April 17.
- Oberwolfach workshop on Automorphic Forms - Geometry and Arithmetic, Feb. 4-9.
- AMS annual meeting number theory special session, Jan. 6-9 (declined).
- 2007:
  - Number theory seminar, Shangdong University, China, Dec. 24.
  - The 4th ICCM (International Congress of Chinese Mathematicians) meeting, Hang Zhou, China, Dec. 17-Dec. 22.
  - Number theory seminar, Capital Normal University, Beijing, China, Dec. 11.
  - Number theory seminar, Clemson University, Nov. 29 (declined).
  - Number theory seminar, UIC, Oct. 3.
  - Number theory seminar, Shangdong University, China, Aug. 16 (declined).
  - Workshop on number theory, combinatorics and their interaction, Nanjing University, China, Aug. 10-12.
  - Lecture series (5) on Arithmetic Intersection, Morningside Center of Mathematics, Beijing, June July 2-July 23.
  - Colloquium, Math Institute, AMSS, Beijing, July 20.
  - Number Theory Workshop, Morningside Center of Mathematics, Beijing, June 24-27.
  - Workshop on L-function and arithmetic geometry, in honor of Golfeld's 60th birthday, Columbia University, May 18-23.
  - Number Theory Seminar, UC-Berkeley, May 2.
  - Number Theory Seminar, UCSD, April 30.
  - Number Theory Seminar, UCLA, April 27.
  - Number Theory Seminar, CalTech, April 26.
  - Siegel Modular Forms and Abelian Varieties Conf., Lake Hamana, Japan, Feb. 5-9, 2007 (declined).
- 2006:
  - Number Theory Seminar, Univ. of Toronto, Canada, Dec. 19, 2006.
  - Number Theory Seminar, Max Planck Institute für Mathematik at Bonn, Germany, Oct. 30, 2006.
  - ARCC workshop on 'Subconvexity bounds for L-functions', Oct. 15-20, 2006, AIM.
  - Colloquium, Iowa State University, Fall 2006 (declined).
  - Arithmetic Geometry Seminar, Morningside Center of Mathematics, Beijing, China, July 14, 2006.
  - Columbia University Number Theory Seminar, April 20, 2006.

- AMS meeting special session on Computational Arithmetic Geometry, San Francisco State Univ. April 29-30, 2006.
- Colloquium, UW-Madison, March 20, 2006.
- Workshop on Arithmetic Geometry, Erwin Schroedinger Institute in Vienna, January 22 - 28, 2006 (declined).

2005:

- McGill University Workshop in Arithemtic Geometry (declined), Dec. 12-16, 2005.
- University of Maryland FRG Conference on modular forms and arithmetic geometry (declined), OCt. 6-9, 2005.
- Oberwolfach Meeting on Modular Forms, Germany (declined), September, 2005.
- Shimura Variety Woskshop in Hang Zhou China, July 1-14, 2005, a series of 6 lectures (declined).

2004:

- The 3rd International Congress of Chinese Mathematicians meeting, Hong Kong (declined)
- McGill University, Number Theory Workshop, Dec. 12-16, 2004 (declined).
- Purdue University Number Theory Seminar, Nov. 4, 2004.
- Number Theory FRG Conference at Madison, Sept. 16-19, 2004 (I am also a co-orgnaizer).
- The Mathematics Institute at Beijing Colloquium, Aug. 13, 2004.
- Shangdong University Colloquium, Aug. 5, 2004.
- Pohang Univ. of Sci. and Tech., Korea, June 27- June 31 (declined).
- Fudan University Number Theory Seminar, June 15, 2004.
- Anhui Normal University Colloquium, June 2, 2004.
- Morningside Center of Mathematics at Beijing, 3 number theory seminars during May 21-Aug. 17.
- UC-San Diego Number Theory Seminar, Mar. 26, 2004.
- Ohio-State U. Number theory seminar, Mar. 1, 2004.
- Conf. on Modular forms and related topics, Hamana Japan, Feb. 16-20.
- Number Theory Workshop, National Center for Theoretical Research, Taiwan, Jan. 6-8, 12-23, (a series of 5 talks).

2003:

- National Chiao Tung University Colloquium, Taiwan, Dec. 30.
- National Cheng Kung University, Taiwan, Arith. Geometry and Rep. Theory Day, Dec. 26.

- National Central University, Taiwan, Number Theory Seminar, Dec. 24.
- Annual Meeting of Taiwan Math. Soc., The National Central Univ., Taiwan, Dec. 19-21.
- MPIM number theory seminar, Aug. 6, 2003.
- MPIM number theory seminar, July 9, 2003.
- University of Illinois at Chicago, Midwest Number Theory Day, May 10, 2003.
- The Fields Institute Workshop on Shimura variety, Mar. 4-9, 2003.
- McMaster University number theory seminar, Mar. 4, 2003.
- McGill University number theory seminar, Feb. 14, 2003.
- 2002:
  - Hakuba number theory conference, Japan, Nov. 5-9, 2002.
  - Oberwolfach Conference on Modulformen, Oberwolfach, Germany, Sept. 15-21, 2002, (declined).
  - The *Intern. Congress of Mathematicians* Satellite Conference on Number Theory and Arithmetic Geometry, Weihai, China, Aug. 13-17, 2002.
  - The Morningside Center of Mathematics, Beijing, Number Theory Seminar, July 16 and 18, 2002 (two lectures).
  - Tongji University, Shanghai, Number Theory Seminar, July 9, 2002.
  - Hang Zhou workshop on automorphic forms, June 16-June 29, Hang Zhou, A series of 8 lectures.
  - Geometry and number theory seminar at Mathematical Institute, the Chinese University of Hong Kong, June 1.
  - *Hong Kong Geometry Colloquium*, The Chinese University of Hong Kong, May 25, (This is a monthly colloquium co-organized by the three main universities in Hong Kong).
- 2001:
  - The 2nd *Intern. Congress of Chinese Mathematicians*, Taiwan, Dec. 17-22.
  - MSRI Rankin L-values workshop, MSRI, Berkeley, USA, Dec. 10-14.
  - The University of Maryland at College Park, Number Theory Seminar.
    - Osaka University, Japan, Number Theory Seminar.
    - International Conference on automorphic forms, Osaka, *Japan*,



Jan. 30-31, 2001, .

- Kyoto University, *Japan*, Number Theory Seminar.
- Penn State University, Number Theory Seminar.
- Michigan State University, Number Theory Seminar.
- The National Center for Theoretic Science, Taiwan, Dec. 22-29.  
(declined)
- Number Theory Conference, Hsinchu, Taiwan, Dec. 28(declined).

2000:

- Harvard University, Number Theory Seminar.
- Princeton University, Number Theory Seminar.
- The Morningside Center of Mathematics, Beijing, China.  
A series of 6 lectures.
- Anhui Normal University, China, Colloquium.
- The State University of New York at Stony Brook, Colloquium.
- The University of Iowa, Colloquium.
- The Johns Hopkins University, Number Theory Seminar.
- Representation theory workshop, Hongzhou, China,  
(declined).
- University of Massachusetts at Amherst, Number Theory Seminar.

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- University of Wisconsin at Madison, Colloquium.

1999:

- Harvard University, Number Theory Seminar.
- University of Minnesota, Number Theory Seminar.
- Amer. Math. Soc. Meeting, Urbana-Champaign, IL.

1998:

- Columbia University, Number Theory Seminar.
- SUNY at Stony Brook, Colloquium.
- Max-Planck Institut für Mathematik, Bonn, *Germany*,  
Number Theory Seminar.
- Mannheim University, *Germany*, Number Theory Seminar.
- McGill University, Montreal, *Canada*, Colloquium.
- University of California at Santa Cruz, Colloquium.
- Rutgers at Newark, Colloquium.
- Boston College, Colloquium.
- Penn State University, Number Theory Seminar.
- Amer. Math. Soc. Meeting, Tucson, Arizona.
- Oberwolfach Meeting on Modular Forms, Germany.
- Amer. Math. Soc. Meeting, State College, PA.
- The 13th Automorphic forms workshop at Columbia, MO.
- Intern. Conf. on automorphic forms, Bambay, *India*, (declined).
- Intern. Conf. on quadratic forms, Seoul, *Korea*, (declined).

1997:

- The Ohio State University, Lie Theory Seminar.
- Max-Planck Institut für Mathematik, Bonn, *Germany*,  
Number Theory Seminar (2 lectures).
- The Johns Hopkins University, Number Theory Seminar.
- The Missouri Algebra Weekend in Columbia.

1996:

- The University of Maryland at College Park, Lie Theory Seminar.
- The University of Michigan at Ann Arbor, Number Theory Seminar.
- Amer. Math. Soc. Meeting at Rider's University, New Jersey.
- Amer. Math. Soc. Meeting at the University of Iowa.

1995:

- The University of Pennsylvania, Number Theory Seminar.

**Notable Professional Services:**

- AMS Representative to the AAAS Science and Human Rights Coalition, Feb. 2017-Jan. 2019.
- Committee on Human Rights of Mathematicians, Feb. 2017-Jan. 2020.
- Fan Fund Travel Grant Committee, 2010-2013, chair in 2012.
- NSF proposal review panel, 3 times.
- Help running Tsinghua University Number Theory Summer Programs, summers 2010—.
- Informal academic adviser, the Morningside Center of Mathematics, Beijing, 2007—.

**Noticeable Charity work**

Founder and director of the Hometown Education Foundation since 2004. Currently, we support over 1200 poor students (elementary school to college) in China a year and raise about \$180K a year.

**Services at the Mathematics Department (since 2010):**

- 2016-17: Associate Chair, Hiring, Undergraduate advising, Fundraising/Newsletter, Scholarship and prizes (Chair).
- 2015-16: Awards, Graduate program, Scholarship and prizes (Chair), Fundraising, Ad Hoc on Assadi's teaching.
- 2014-15: Faculty Affairs, graduate admissions, UPC-2, budget
- 2012-13: Academic Staff Review Committee (chair), Budget Committee, Salary Committee, faculty Affair Committee, TA Evaluation Committee, Ad-Hoc Committee for Academic Staff Reorganization.
- 2011-12: Award Committee (chair), Budget Committee, Admission Committee, Salary Committee, Lecture Committee.

- 2010-11: Associate Chair, Salary Committee, Admission Committee.

- Columbia University, Number Theory Seminar.

**Services at the University of Wisconsin-Madison (since 2010)**

:

- Senate, 2009-2012.
- Recreational Sport Board, 2011-12.

**Teaching at UW-Madison since 2014**

2016-17: Math848 (Shimura Varieties), Math341 (honor linear algebra).

2015-16: Math341 (honor linear algebra), Math 221 (Calculus I), Math844 (modular forms) .

2014-15: Math431 (probability), Math844 (Class field theory), Math341 (honor linear algebra).

UNIVERSITY HOUSING'S Honored Instructor Award: Fall 2009, Spring 2013.

I teach all kinds of math courses at the department, including low level service courses (Calculus I, II, III) with large audiences, upper level undergraduate courses, graduate basic courses, and graduate topic courses. I have done it very well.