

AMANDA L. FOLSOM

CONTACT Amherst College afolsom@amherst.edu
Department of Mathematics and Statistics www.amherst.edu/~afolsom
Amherst, MA 01002

EMPLOYMENT **Amherst College** 2014 – present
Associate Professor

Yale University
Associate Professor 2014
Assistant Professor (Tenure-Track) 2010 – 2013

University of Wisconsin-Madison 2007 – 2010
National Science Foundation Postdoctoral Fellow
and Van Vleck Assistant Professor

Max-Planck-Institut für Mathematik, Bonn, Germany 2006 – 2007
Postdoctoral Fellow

EDUCATION **Ph.D. Mathematics** University of California, Los Angeles Jun. 2006
M.S. Mathematics University of California, Los Angeles Dec. 2002
B.A. Mathematics University of Chicago (with honors) Jun. 2001

**GRANTS,
HONORS
& AWARDS** **National Science Foundation CAREER Grant (P.I.)** 2013 – 2019
DMS-1449679 and DMS-1252815, \$437,000

Institute for Advanced Study, Princeton Spring 2016
von Neumann Fellowship and Member

National Science Foundation Conference Grant (co-P.I.) 2016
DMS-1608789, \$25,000

Amherst College Trustee Faculty Fellowship 2015 – 2016

National Science Foundation Grant (P.I.) 2010 – 2013
DMS-1049553, \$75,875

Yale University Junior Faculty Fellowship 2012 – 2013

National Science Foundation Postdoctoral Fellowship (P.I.) 2007 – 2010
DMS-0701461, \$108,000

University of Wisconsin-Madison Honored Instructors Award 2009

University of California Dissertation Year Fellowship 2005 – 2006

UCLA Graduate Research Mentorship Fellowship 2004 – 2005

National Science Foundation VIGRE Graduate Fellow 2001 – 2002

Phi Beta Kappa 2001

Sigma Xi 2001, 2015

University of Chicago - B.A. degree honors 2001

Salutatorian Bishop Fenwick High School 1997

VISITING POSITIONS (*while on sabbatical leaves*)

Institute for Advanced Study, Princeton Spring 2016
 von Neumann Fellow and Member

Max-Planck-Institut für Mathematik, Bonn, Germany Fall 2015/Spring 2013
 Visiting Researcher

Emory University Fall 2012
 Visiting Researcher in the Dept. of Mathematics

EDITORSHIPS

Associate Editor, *Journal of Number Theory* 2017 – present
 a peer-reviewed international research journal, published by Elsevier

Editorial Board Member, *Research in Number Theory* 2014 – present
 a peer-reviewed international research journal, published by Springer

Editorial Board Member, *Proceedings of the American Math. Soc.* 2018 – present
 a peer-reviewed int'l research journal in all areas of math, published by the AMS

RESEARCH INTERESTS

Analytic and Algebraic Number Theory, Modular Forms, (harmonic) Maass Forms, Mock Theta Functions, Jacobi Forms, Combinatorics, q -series, Lie/Representation Theory, Quantum Modular Forms, Modular Units.

PUBLICATIONS I. BOOK

1. K. Bringmann, A. Folsom, K. Ono, and L. Rolin, *Harmonic Maass forms and mock modular forms: theory and applications*, **American Mathematical Society Colloquium Book Series**, accepted for publication, ~ 400 pp. To appear 2018-19.

II. RESEARCH ARTICLES

1. M. Barnett[◇], A. Folsom, O. Ukogu[◇], W.J. Wesley[◇], and H. Xu[◇], *Quantum Jacobi forms and balanced unimodal sequences*, submitted.
2. K. Bringmann and A. Folsom, *Quantum Jacobi forms and finite evaluations of unimodal rank generating functions*, **Archiv der Mathematik** 107 (2016), 367–378.
3. K. Bringmann, A. Folsom, and A. Milas, *Asymptotic behavior of partial and false theta functions arising from Jacobi forms and regularized characters*, **Journal of Mathematical Physics** 58 011702 (2017), 19 pp.
4. A. Folsom, S. Garthwaite, S-Y Kang, H. Swisher, S. Treneer, *Quantum mock modular forms arising from eta-theta functions*, **Research in Number Theory** 2:14 (2016), 41 pp.
5. A. Folsom, *Mock and mixed mock modular forms in the lower half-plane*, **Archiv der Mathematik** 107 (2016), 487–498.
6. A. Folsom and P. Jenkins, *Zeros of modular forms of half integral weight*, **Research in Number Theory** 2:23 (2016), 25pp.
7. A. Folsom, C. Ki[◇], Y.N. Truong Vu[◇], and B. Yang[◇], *Strange combinatorial quantum modular forms*, **Journal of Number Theory** 170 (2017), pp. 315–346.
8. A. Folsom, Y. Homma[‡], J. Ryu[‡], B. Tong[‡], *On a general class of non-squashing partitions*, **Discrete Mathematics** 339 iss. 5 (2016), pp. 1482–1506.

[◇]Amherst College undergraduate student co-author.

[‡]Yale University undergraduate student co-author.

9. K. Bringmann, A. Folsom, and K. Mahlburg, *Quasimodular forms and $sl(m|m)^\wedge$ characters*, **Ramanujan Journal** 36 (2015), pp. 103–116.
10. K. Bringmann, A. Folsom, and R.C. Rhoades, *Unimodal sequences and “strange” functions: a family of quantum modular forms*, **Pacific Journal of Mathematics** 274 no. 1 (2015), pp. 1–25.
11. A. Folsom, W. Kohnen, and S. Robins, *Conic theta functions and their relations to theta functions*, **Annales de l’Institut Fourier (Grenoble)** 65 no. 3 (2015), pp. 1133–1151.
12. K. Bringmann, C. Calinescu, A. Folsom, and S. Kimport^b, *Graded dimensions of principal subspaces and modular Andrews-Gordon series*, **Communications in Contemporary Mathematics** 16 no. 4 (2014), 1350050, 20 pp.
13. K. Bringmann and A. Folsom, *Almost harmonic Maass forms and Kac-Wakimoto characters*, **Journal für die reine und angewandte Mathematik (Crelle’s Journal)** 694 (2014), pp. 179–202.
14. A. Folsom, *Mock modular forms and d -distinct partitions*, **Advances in Mathematics** 254 (2014), pp. 682–705.
15. A. Folsom, K. Ono, and R.C. Rhoades, *Ramanujan’s radial limits*, **Contemporary Mathematics** 627, Ramanujan 125, pp. 91–102, eds. K. Alladi, F. Garvan, and A.J. Yee, American Mathematical Society (2014).
16. K. Bringmann and A. Folsom, *On a conjecture of B. Berndt and B. Kim*, **Ramanujan Journal** 32 (2013), pp. 1–4.
17. K. Bringmann and A. Folsom, *On the asymptotic behavior of Kac-Wakimoto characters*, **Proceedings of the American Mathematical Society** 141 no. 5 (2013), pp. 1567–1576.
18. A. Folsom and S. Kimport^b, *Mock modular forms and singular combinatorial series*, **Acta Arithmetica** 159.3 (2013), pp. 257–297.
19. A. Folsom, K. Ono, and R.C. Rhoades, *Mock theta functions and quantum modular forms*, **Forum of Mathematics Pi** 1 (2013), pp. 1–27.
20. K. Bringmann, A. Folsom, and R.C. Rhoades, *Partial theta functions and mock modular forms as q -hypergeometric series*, **Ramanujan Journal** 29 (2012), pp. 295–310.
21. W. Castryck, A. Folsom, H. Hubrechts, and A.V. Sutherland, *The probability that the number of points on the Jacobian of a genus 2 curve is prime*, **Proceedings of the London Mathematical Society (3)** 104 (2012), pp. 1235–1270.
22. A. Folsom, Z. Kent, and K. Ono, *ℓ -adic properties of the partition function*, **Advances in Mathematics** 229 (2012), pp. 1586–1609.
23. A. Folsom, *Kac-Wakimoto characters and universal mock theta functions*, **Transactions of the American Mathematical Society** 363 no. 1 (2011), pp. 439–455.
24. A. Folsom and R. Masri, *The asymptotic distribution of traces of Maass-Poincaré series*, **Advances in Mathematics** 226 (2011), pp. 3724–3759.
25. A. Folsom, *Modular units and the q -difference equations of Selberg*, **Mathematical Research Letters** (17) no. 2 (2010), pp. 283–299.
26. A. Folsom, *Modularity and the distinct rank function*, **Ramanujan Journal** 23 (2010), pp. 183–193.
27. A. Folsom and R. Masri, *Equidistribution of Heegner points and the partition function*, **Mathematische Annalen** 348 no. 2 (2010), pp. 289–317.
28. K. Bringmann, A. Folsom, and K. Ono, *q -series and weight $3/2$ Maass forms*, **Compositio Mathematica** 145 (2009), pp. 541–552.

^bYale University graduate student co-author.

29. A. Folsom, *A characterization of the modular units*, **International Journal of Number Theory** (5) no. 2 (2009), pp. 303–310.
30. A. Folsom, *A short proof of the mock theta conjectures using Maass forms*, **Proceedings of the American Mathematical Society** 136 (2008), pp. 4143–4149.
31. A. Folsom, *Class invariants and cyclotomic unit groups from special values of modular units*, **Journal de Théorie des Nombres de Bordeaux** (20) no. 2 (2008), pp. 289–325.
32. A. Folsom and K. Ono, *Duality involving the mock theta function $f(q)$* , **Journal of the London Mathematical Society** (2) 77 (2008), pp. 320–334.
33. A. Folsom and K. Ono, *The spt -function of Andrews*, **Proceedings of the National Academy of Sciences, USA** 105 no. 51 (2008), pp. 20152–20156.
34. A. Folsom, *Modular forms and Eisenstein's continued fractions*, **Journal of Number Theory** 117 (2006), pp. 279–291.
35. E. Burger, A. Folsom[‡], A. Pekker[‡], R. Roengpitya[‡], and J. Snyder[‡], *On a quantitative refinement of the Lagrange spectrum*, **Acta Arithmetica** 102.1 (2002), pp. 55–82.

III. EXPOSITORY ARTICLES AND BOOK REVIEW

1. A. Folsom, *Book Review: "My Search For Ramanujan" by K. Ono and A. Aczel*, **Bhavana** vol. 1 iss. 2., April 2017.
2. A. Folsom, *Perspectives on mock modular forms*, **Journal of Number Theory** 176 (2017), 500-540.
3. J. Bruinier, A. Folsom, Z. Kent, and K. Ono, *Recent work on the partition function*, **Ramanujan Mathematical Society Lecture Notes** 20 (2013), eds. B.C. Berndt and D. Prasad, pp. 139–151.
4. A. Folsom, *WHAT IS... a mock modular form?*, **Notices of the American Mathematical Society** 57 iss. 11 (2010), pp. 1441–1443.
5. A. Folsom, *Book Review: The 1-2-3 of modular forms*, by J.H. Bruinier, G. van der Geer, G. Harder, and D. Zagier. **Bulletin of the American Mathematical Society** 46 (2009), pp. 527–533.

INVITED RESEARCH TALKS

- | | |
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| 1. Boston University, Seminar | May 2017 |
| 2. Brown University, Seminar | February 2017 |
| 3. Bucknell University, Distinguished Visitor, Colloquium | Apr. 2016 |
| 4. Penn. State University, Seminar | Apr. 2016 |
| 5. Institute for Advanced Study, Princeton, Member Seminar | Feb. 2016 |
| 6. Heidelberg University, Germany, Colloquium | Dec. 2015 |
| 7. Max-Planck-Institut, Bonn, Germany, Seminar | Dec. 2015 |
| 8. TU Darmstadt, Germany, Seminar | Dec. 2015 |
| 9. University College, Dublin, Seminar | Nov. 2015 |
| 10. SUNY Albany, Colloquium | Sept. 2015 |
| 11. University of Cologne, Germany, Seminar | Jun. 2015 |
| 12. Temple University, Colloquium | Apr. 2015 |
| 13. University of Massachusetts, Amherst, Geometry Seminar | Mar. 2015 |
| 14. Tulane University, Colloquium | Jan. 2015 |
| 15. Brandeis-Harvard-MIT-Northeastern, Joint Colloquium | Nov. 2014 |

[‡]undergraduate student co-author.

16. Amherst College , Five College Number Theory Seminar	Sept. 2014
17. Wesleyan University , Colloquium	May 2014
18. Texas A&M University , Seminar	Apr. 2014
19. Yale University , Junior Colloquium	Apr. 2014
20. Johns Hopkins University , Colloquium	Oct./Nov. 2013
21. Heidelberg University, Germany , Seminar	May 2013
22. Max-Planck-Institut, Bonn, Germany , Oberseminar	Apr. 2013
23. Université de Nice, France , Seminar	Apr. 2013
24. University College Dublin, Ireland , Seminar	Apr. 2013
25. University of Cologne, Germany , Seminar	Apr. 2013
26. Brigham Young University , Colloquium	Jan. 2013
27. University of Wisconsin-Madison , Colloquium	Dec. 2012
28. University of Illinois, Urbana-Champaign , Seminar	Oct. 2012
29. Emory University , Seminar	Sept. 2012
30. Northeastern University , Seminar	Apr. 2012
31. University of Connecticut, Storrs , Seminar	Apr. 2012
32. Yale University , Seminar	Feb. 2012
33. Emory University , Seminar	Dec. 2011
34. University of Massachusetts, Amherst , Seminar	Nov. 2011
35. Northwestern University , Seminar	Apr. 2011
36. Boston College-MIT , Joint Seminar	Feb. 2011
37. CUNY Graduate Center , Seminar	Dec. 2010
38. SUNY Stony Brook , Seminar	Dec. 2010
39. University of Cologne, Germany , Seminar	Nov. 2010
40. MIT , ∞ -dim'l Lie Algebras Seminar	Oct. 2010
41. Wesleyan University , Colloquium	Oct. 2010
42. Yale University , Arithmetic Geometry Seminar	Sept. 2010
43. Yale University , Colloquium	Feb. 2010
44. University of Pittsburgh , Colloquium	Jan. 2010
45. University of Texas, Austin , Seminar	Jan. 2010
46. POSTECH, Pohang, Korea , Seminar	Dec. 2009
47. Rutgers University , Colloquium	Dec. 2009
48. Rice University , Colloquium	Nov. 2009
49. University of Wisconsin-Madison , Seminar	Sept. 2009
50. University of Wisconsin-Madison , Seminar	Nov. 2008
51. University College Dublin , Seminar	Feb. 2008
52. McMaster University, Canada , Arithmetic Geometry Seminar	Nov. 2007
53. Stanford University , Seminar	Nov. 2007
54. University of South Carolina , Seminar	Nov. 2007
55. University of Illinois, Urbana-Champaign , Seminar	Oct. 2007
56. University of Wisconsin-Madison , Seminar	Oct. 2007

- 57. **Amherst College**, Five College Number Theory Seminar May 2007
- 58. **University of Wisconsin-Madison**, Seminar May 2007
- 59. **ETH Zurich, Switzerland**, Seminar Dec. 2006
- 60. **Max-Planck-Institut, Bonn, Germany**, Seminar Sept. 2006
- 61. **Princeton University**, Seminar May 2006
- 62. **University of California, Los Angeles**, Seminar Feb. 2006
- 63. **Boston University**, Algebra Seminar Nov. 2005
- 64. **University of Wisconsin-Madison**, Seminar Feb. 2005
- 65. **Harvard University**, Graduate Student Seminar Jul. 2004

**CONFERENCE
AND
WORKSHOP
TALKS**

- 1. **MAA Invited Address**, AMS-MAA Joint Meetings, Baltimore Jan. 2019
- 2. **Modular Forms and Quantum Knots, BIRS, Banff** Mar. 2018
- 3. **AMS-MAA Joint Meetings, San Diego** special session Jan. 2018
- 4. **AMS Eastern Sectional, Hunter College**, closing speaker May 2017
- 5. **Connecticut Summer School in Number Theory**, UConn Aug. 2016
- 6. **Gainesville Number Theory Conference**, UFlorida Mar. 2016
- 7. **Illinois Number Theory Conference**, UIUC Aug. 2015
- 8. **Assoc. Women in Math. Research Symposium**, UMaryland Apr. 2015
- 9. **TORAS University of Oklahoma**, keynote speaker Mar. 2015
- 10. **AMS-MAA Joint Meetings, San Antonio**, special session Jan. 2015
- 11. **Southern California Number Theory Day**, UC-Irvine Oct. 2014
- 12. **AMS Eastern Sectional, Temple University**, special session Oct. 2013
- 13. **Ramanujan 125**, University of Florida Nov. 2012
- 14. **University of Illinois Number Theory Conference** Oct. 2012
- 15. **Building Bridges: EU-US Conf.**, Aachen University, Germany Aug. 2012
- 16. **Yale Science and Engineering Forum** Apr. 2012
- 17. **Krupp Symposium**, University of Cologne, Germany Feb. 2012
- 18. **AMS-MAA Joint Meetings, Boston**, special session Jan. 2012
- 19. **Quebec-Maine Number Theory Conference** Oct. 2011
- 20. **CUNY Conference on Symmetric Groups** Sept. 2011
- 21. **AMS Eastern Spring Sectional, Holy Cross**, special session Apr. 2011
- 22. **ICTP Conference on Mock Modular Forms**, Trieste, Italy Mar. 2011
- 23. **AMS-MAA Joint Meetings, New Orleans**, special session Jan. 2011
- 24. **AMS-CMS Joint Meeting**, Pucon, Chile Dec. 2010
- 25. **University of Hawaii Workshop on Automorphic Forms** Mar. 2010
- 26. **KMS-AMS Winter Meeting**, Seoul, Korea Dec. 2009
- 27. **Mock ϑ -functions and Applications**, MPIM Bonn, Germany May 2009
- 28. **1047th Meeting of the AMS**, UIUC Mar. 2009
- 29. **University of Florida Conference on Quadratic Forms** Mar. 2009
- 30. **PANTS VIII, U. South Carolina**, plenary speaker Dec. 2008
- 31. **University of Hawaii Workshop on Automorphic Forms** May 2008

- 32. **University of Florida Number Theory Conference** Mar. 2008
- 33. **AMS-MAA Joint Meetings, San Diego, special session** Jan. 2008
- 34. **SASTRA-Ramanujan Conference, Kumbakonam, India** Dec. 2007
- 35. **The Fields Institute Workshop** Nov. 2007
- 36. **Heini Halberstam's 80th Birthday Conference, UIUC** May 2007
- 37. **21st Automorphic Forms Workshop, UC-Santa Barbara** Mar. 2007
- 38. **Jahrestagung der DMV, Uni. Bonn, Germany** Sept. 2006
- 39. **20th Automorphic Forms Workshop, UC-Boulder** Mar. 2006
- 40. **19th Automorphic Forms Workshop, U. North Texas** Mar. 2005
- 41. **18th Automorphic Forms Workshop, UC-Santa Barbara** Mar. 2004
- 42. **Summer School in Analytic Number Theory, Catalina, CA** Aug. 2003
- 43. **AMS-MAA Joint Meetings, New Orleans, undergrad. prize** Jan. 2001
- 44. **MAA Regional Meeting, St. Paul's School, NH** Jun. 2000

**OTHER
CONFERENCES
AND MEETINGS**

- 1. **AMS-MAA Joint Meetings, Atlanta** Jan. 2017
- 2. **MAA Mathfest, Washington D.C.** Aug. 2015
- 3. **AIM SQuaREs Workshop** Jul. 2015
- 4. **REU Mini-Symposium at UConn** Jul. 2015
- 5. **University of Cologne, research visits** 5/2011, 11/2011, 5/2012, 6/2015
- 6. **Automorphic Forms Conf., CIRM Luminy, France** May 2015
- 7. **MAA Mathfest, Portland, OR** Aug. 2014
- 8. **REU Mini-Symposium at Yale** Jul. 2014
- 9. **AMS-MAA Joint Meetings, Baltimore** Jan. 2014
- 10. **Simons Center Workshop: Mock/Moonshine/String** Aug. 2013
- 11. **Mount Holyoke College, New Directions for REUs** Jun. 2013
- 12. **Hypergeometric Series, Institut Henri Poincaré, Paris** May 2012
- 13. **AIM Workshop on Cohen-Lenstra Heuristics** Jun. 2011
- 14. **University College Dublin, research visit** May 2011
- 15. **Emory University Conference on Partitions** Jan. 2011
- 16. **AIM Workshop on Mock Modular Forms** Mar. 2010
- 17. **AMS-MAA Joint National Meetings, San Francisco** Jan. 2010
- 18. **Columbia University, D. Goldfeld's 60th Bday Conference** May 2007
- 19. **Oxford Club NYC: Wiles & Du Sautoy (guest of F.H. Schott)** Apr. 2007
- 20. **Conf. on Modular/Diophantine, MPIM Bonn, Germany** Feb. 2007
- 21. **Universiteit Leiden, Netherlands, Intercity Num. Th.** Sept. 2006
- 22. **Columbia University, Galois Repns./L-fns./Arithmetic** Jun. 2006
- 23. **Princeton/IAS Zeta Functions Women's Program** May 2006
- 24. **AMS-MAA Joint National Meetings, San Antonio** Jan. 2006
- 25. **Southern California Number Theory Day, UC-Irvine** Oct. 2005
- 26. **Gauss-Dirichlet Conference, Göttingen, Germany** Jun. 2005

27. **Southern California Number Theory Day, UCSD** May 2005
 28. **University of Florida, Additive Number Theory** Nov. 2004

OTHER RESEARCH **National Science Foundation REU Participant** Summer 2000
 Williams College SMALL Program

PROFESSIONAL MEMBERSHIPS **American Mathematical Society (AMS)**
Association for Women in Mathematics (AWM)
Sigma Xi, The Scientific Research Society

- PUBLIC AND UNDERGRAD. EVENTS**
1. **College of the Holy Cross**, PME undergrad. colloquium May 2017
 2. **Queer Resource Center**, Amherst Coll., documentary interview Jun. 2015
 3. **Queer Resource Center**, Amherst Coll., faculty-student discussion Apr. 2015
 4. **Women’s & Gender Cntr.** Amherst Coll., discussion with students Oct. 2014
 5. **Center for Women in Math.**, Smith Coll., undergrad. lecture Oct. 2014
 6. **Yale Math Club (YUMS)**, undergraduate lecture Apr. 2014
 7. **Amherst College**, undergrad lecture Jan. 2014
 8. **Yale University Math Mornings**, public lecture Nov. 2013
 9. **Center for Women in Math.**, Smith Coll., undergrad. lecture Nov. 2012
 10. **Emory U.**, Environmental Sci.120, undergraduate lecture Oct.2012
 11. **UConn**, Preparing Future Faculty, panelist Apr. 2012
 12. **Naugatuck Valley Comm. Coll.**, Women in Science speaker Mar. 2012
 13. **Yale Math Club (YUMS)**, undergraduate lecture Sept. 2011
 14. **Tilde Cafe, Branford, CT**, public lecture/local TV Mar. 2011
 15. **MAA Joint Meetings, New Orleans**, undergraduate lecture Jan. 2011
 16. **MIT: Women in Mathematics Lectures** Oct. 2010
 17. **UW-Madison Math Club**, undergraduate lecture Apr. 2009
 18. **Amherst College**, undergraduate lecture Nov. 2005

PUBLIC SCHOOL OUTREACH **EYE on Mathematics: Edgewood-Yale Educational Outreach** 2012–15
 Founder of this math enrichment program at the K-8 public Edgewood School in New Haven, CT, in partnership with Principal R. Reynolds, and math teachers C. Piersanti and C. Boynton. Led supplementary-to-classroom creative projects for 5th graders every other week, chosen to emphasize YNI philosophies.

Yale National Initiative (YNI) Summer 2011
 YNI is a sustained collaboration between Yale faculty members and public school teachers from across the U.S. Co-led the seminar “Great Ideas in Math.” with R. Howe, and supervised the writing/publishing of teachers’ curriculum units.

Mathcounts Outreach 2012–14
 Faculty advisor to the Yale-New Haven chapter of the national Mathcounts program, which functions to enhance achievement in middle school mathematics.

**TEACHING
EXPERIENCE**

I. AT AMHERST COLLEGE (Assoc. Prof.)

Semester	Course	Name
Fall 2014	MATH 111	Introduction to the Calculus
	MATH 225	Chaos and Fractals
Spring 2015	MATH 111	Introduction to the Calculus
	MATH 350	Groups, Rings and Fields
Fall 2015	—	<i>(sabbatical leave)</i>
Spring 2016	—	<i>(sabbatical leave)</i>
Fall 2016	MATH 225	Fractal Geometry
	MATH 310*	Intro. to the Theory of Partitions
Spring 2017	MATH 111	Introduction to the Calculus
Fall 2017	MATH 111	Introduction to the Calculus
	MATH 281*	Combinatorics
Spring 2018	MATH 111	Introduction to the Calculus
	MATH 460*	Analytic Number Theory

**introduced to the curriculum*

II. AT YALE UNIVERSITY (Asst./Assoc. Prof.)

Semester	Course	Name
Fall 2010	MATH 632a*	Modular Forms (Graduate)
Spring 2011	MATH 355b	Geometric Algebra
Fall 2011	MATH 112a	Calculus of Functions of One Variable
Spring 2012	MATH 290b	Fractal Geometry
	MATH 354b	Number Theory
	SEMINAR	Lang Lunch Teaching Seminar (Graduate)
Fall 2012	—	<i>(sabbatical leave)</i>
Spring 2013	—	<i>(sabbatical leave)</i>
Summer 2013	MATH 112a	Calculus of Functions of One Variable
Fall 2013	MATH 222a	Linear Algebra with Applications
Spring 2014	MATH 290b	Fractal Geometry
	MATH 634b*	Modular/Weak Maass Forms (Graduate)

**introduced to the curriculum*

III. AT UNIVERSITY OF WISCONSIN-MADISON (Postdoc./Asst. Prof.)

Semester	Course	Name
Fall 2007	—	<i>(NSF fellowship)</i>
Spring 2008	—	<i>(NSF fellowship)</i>
Fall 2008	MATH 748	Algebraic Number Theory (Graduate)
Spring 2009	MATH 421	The Theory of Calculus
Fall 2009	MATH 320	Linear Algebra & Differential Eqns.
Spring 2010	MATH 320	Linear Algebra & Differential Eqns.

IV. OTHER TEACHING EXPERIENCE

Date	Location	Description
2002 – 2004	UCLA**	T.A. for Calc., Hon. Calc., Diff. Eq., Lin. Alg.
Fall 2002	UCLA**	Professor apprenticeship, teaching-training
Fall 2003	UCLA**	PEERS Calculus for underrep'd minorities
Winter 2004	UCLA**	PEERS Calculus for underrep'd minorities
May 2006	Princeton**	T.A. at undergrad. women's program
March 2013	U. Arizona	Faculty asst. at graduate research program

** taught while a graduate student

STUDENT RESEARCH ADVISED

Undergraduate thesis students

- William (Jack) Wesley, '18 (Amherst College): *in preparation*.
- Michael Barnett, '18 (Amherst College): (co-advisor) *in preparation*.
- Yen Nhi Truong Vu, '17 (Amherst College): *On the modular transformations and asymptotic behaviors of mock modular forms*.
Recipient of the Breusch Prize in Math., Summa Cum Laude.
- Edward J. Kim, '15 (Amherst College): *The Circle Method in Number Theory*.
Co-recipient of the Breusch Prize in Math., Summa Cum Laude.

Ph.D. thesis student

- Susie Kimport, '15 (Yale University): *Quantum modular forms, mock modular forms, and partial theta functions*. First Job: Stanford U. Lecturer

Summer undergraduate research advised

- Summer 2017 (Amherst College): research project advisor to M. Barnett '18, O. Ukogu '18, W. Wesley '18, H. Xu '18. *Quantum Jacobi forms and balanced unimodal sequences*, preprint.
- Summer 2015 (Amherst College): research project advisor to C. Ki '17, Y.N. Truong Vu '17, B. Yang '18, *Strange combinatorial quantum modular forms*, submitted for publication (2015), 24pp.
- Summer 2014 (Yale University): co-founder/director of math. research program SUMRY with S. Payne, and research project advisor to Y. Homma '16, J.H. Ryu '16, B. Tong '17, *On a general class of non-squashing partitions*, Discrete Math, 229 (2016), 25pp.
- Summers 2007, 2008, 2009, 2010 (University of Wisconsin-Madison): NSF REU Instructor; advised/co-advised small groups of undergrads. from various U.S.

institutions on original number theory research. 18 student papers submitted.

Other research advised

- Women in Numbers 4, BIRS, Canada, Aug. 2017: Project Leader/Advisor of an original number theory research project for a small group of women mathematicians at various career stages (graduate student, postdoc, junior faculty).

**DEPARTMENT
AND COLLEGE
SERVICE**

Amherst College

- Faculty Committee on Admission and Financial Aid (FCAFA) 2016 – present
- New Student Orientation Advisor Summers 2016, 2017
- Mathematics Comprehensive Exam Organizer/Advisor 2016 – present
- Honors thesis advisor (to 4 Amherst students) 2014 – present
- Chair, CT Valley Mathematics Colloquium Fall 2016
- Secretary, typing of weekly department meeting minutes Spring 2015
- Grader, Mathematics Comprehensive Exam in Algebra Spring 2015

Yale University

- Ph.D. advisor, S. Kimport ‘15 2011–15
- co-organizer, Number Theory Seminar 2010–14
- Faculty Fellow, Saybrook undergraduate residential college 2012–14
- Academic advisor, Samuel Kim ‘16 2012–14
- Departmental/University committees member (please ask for details) 2010–14

University of Wisconsin

- Committee member, Math. Research Mentoring and Diversity 2008–09
- Mentor/co-organizer, Graduate Student Number Theory Seminar 2008–09
- Grader, Graduate Algebra Qualifying Exam 2010

UCLA (while a graduate student)

- Graduate student mentor 2002–06
- PEERS program mentor, Zalya Sanchez-Galvan ‘07 2003–04
- Dept. panelist; topics: fellowships, gender equity, TA training 2004–06

**MATH
COMMUNITY
SERVICE**

Conferences/Workshops co-organized

- 32nd Automorphic Forms Workshop March 2018
- CTNT Summer School & Research Conference, NSF funded (co-PI) Aug. 2016
- REU Mini-Symposium at Yale University Jul. 2014
- AMS Fall Sectional Meeting, special session, U. Arizona Oct. 2012
- AMS-MAA National Meeting, special session, Washington D.C. Jan. 2009

Editorial Boards

- *Research in Number Theory*, a Springer peer-reviewed journal 2014 – present
- *Journal of Number Theory*, an Elsevier peer-reviewed journal 2017 – present
- *Proc. Amer. Math Soc.*, an AMS peer-reviewed journal 2018 – present

Women in Mathematics

- Women in Numbers 4, Research Project Advisor, BIRS Canada Aug. 2017
- Judge at AWM Women Grad. Research Poster Sess., JMM Atlanta Jan. 2017
- Mentor, Association for Women in Math. Mentor Network 2015 – present
- Smith College Center for Women and Math., speaker Nov. 2012, Oct. 2014
- Naugatuck Valley C.C., Women in Science speaker Mar. 2012
- Zeta functions Women’s Program, Course Asst., Princeton/IAS May 2006

Panels served / other mentoring

- Project NExT Mentor/Consultant 2017–present
- “Grants and funding,” Women in Numbers 4, BIRS, Banff Aug. 2017

- “Applying to graduate school,” REU mini-symposium, Yale Jul. 2014
- “Preparing future faculty,” UConn Apr. 2012
- “Women in mathematics,” Women in Science Conference, Yale Fall 2011
- “Liberal arts vs. research univ.,” Automorphic Forms Workshop Mar. 2010

External Funding Reviewer

- National Science Foundation 3 years served
- National Security Agency 1 year served

Journal Refereeing

Selected journals: Advances in Mathematics, Annals of Mathematics, Applied Mathematics Letters, Duke Journal of Mathematics, International Mathematics Research Notices, Israel Journal of Mathematics, Journal of Number Theory, Proceedings of the National Academy of Sciences, Proceedings of the American Mathematical Society, Ramanujan Journal.

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