

AMANDA L. FOLSOM

- CONTACT INFORMATION Amherst College afolsom@amherst.edu
Department of Mathematics and Statistics <http://www.amherst.edu/~afolsom>
Amherst, MA 01002
- RESEARCH INTERESTS Analytic and Algebraic Number Theory, Harmonic Maass Forms, Modular Forms, Jacobi Forms, Mock and Quantum Modular Forms, Combinatorics, Lie Theory
- EDUCATION **Ph.D. Mathematics** **University of California, Los Angeles** Jun. 2006
 Advisor: William D. Duke
 M.S. Mathematics **University of California, Los Angeles** Dec. 2002
 B.A. Mathematics **University of Chicago** (with honors) Jun. 2001
- EMPLOYMENT • **Amherst College** Associate Professor 2014 – present
 • **Yale University** Assistant Professor; Associate Professor 2014 2010 – 2014
 • **University of Wisconsin-Madison** NSF Postdoctoral Fellow 2007 – 2010
 • **Max-Planck-Institut für Mathematik, Bonn** Postdoc Fellow 2006 – 2007
- VISITING POSITIONS
(while on sabbatical leaves) • **Institute for Advanced Study, Princeton** Spring 2019, Spring 2016
 von Neumann Fellow and Member
 • **Max-Planck-Institut für Mathematik, Bonn** Fall 2015, Spring 2013
 • **Emory University** Fall 2012
- GRANTS AND AWARDS • **Simons Fellow in Mathematics**, Simons Foundation 2018 – 2019
 ID 561663, \$112,155
 • **Prose Award, Association of American Publishers** 2018
 Best Scholarly Book in Mathematics
 • **National Science Foundation CAREER Grant (P.I.)** 2013 – 2019
 DMS-1449679 and DMS-1252815, \$437,000
 • **Institute for Advanced Study, Princeton** Spring 2019, Spring 2016
 von Neumann Fellowship and Member
 • **National Science Foundation Conference Grants (co-P.I.)**
 DMS-1608789, \$25,000 (CT Summer School in Number Theory) 2016
 DMS-1802058, \$21,000 (Automorphic Forms Workshop) 2018
 • **Amherst College Trustee Faculty Fellowship** 2015 – 2016
 • **Yale University Junior Faculty Fellowship** 2012 – 2013
 • **National Science Foundation Grant (P.I.)** 2010 – 2013
 DMS-1049553, \$75,875
 • **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
- EDITORIAL BOARDS • **Editorial Board**, Proceedings of the American Math. Soc. 2018 – present
 • **Editorial Board**, Journal of Number Theory, Elsevier 2017 – present
 • **Editorial Board**, Research in Number Theory, Springer 2014 – present
 • **Proceedings Editor**, Women in Numbers 4, Springer 2017 – present

51 total publications. Publications are available at:

<http://www.amherst.edu/~afolsom/AmandaFolsom/Publications.html>

I. BOOK

1. K. Bringmann, A. Folsom, K. Ono, and L. Rolin, *Harmonic Maass forms and Mock Modular Forms: Theory and Applications*, **American Math. Society Colloquium Publications**, **64**, AMS, Providence, 2018. 391 pp.

II. RESEARCH ARTICLES

2. A. Folsom, *Quantum Jacobi forms in number theory, topology, and mathematical physics*, submitted for publication. 32 pp.
3. A. Folsom, M-J Jang, S. Kimport, and H. Swisher, *Quantum modular forms and singular combinatorial series with repeated roots of unity*, submitted for publication. 24 pp.
4. G. Carroll, J. Corbett, A. Folsom, and E. Thieu, *Universal mock theta functions as quantum Jacobi forms*, **Research in the Mathematical Sciences**, **6:6** (2019). 15 pp.
5. M. Barnett, A. Folsom, and W. Wesley, *Rank generating functions for odd-balanced unimodal sequences, quantum Jacobi forms and mock Jacobi forms*, submitted for publication. 16 pp.
6. A. Folsom, M-J Jang, S. Kimport, and H. Swisher, *Quantum modular forms and singular combinatorial series with distinct roots of unity*, **Springer Research Directions in Number Theory: Women in Numbers IV**, accepted for publication. 18 pp.
7. M. Barnett, A. Folsom, O. Ukogu, W.J. Wesley, and H. Xu, *Quantum Jacobi forms and balanced unimodal sequences*, **Journal of Number Theory** **186** (2018), pp. 16–34.
8. 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.
9. K. Bringmann and A. Folsom, *Quantum Jacobi forms and finite evaluations of unimodal rank generating functions*, **Archiv der Mathematik** **107** (2016), pp. 367–378.
10. A. Folsom, S. Garthwaite, S-Y Kang, H. Swisher, and S. Treneer, *Quantum mock modular forms arising from eta-theta functions*, **Research in Number Theory** **2:14** (2016), 41 pp.
11. A. Folsom, *Mock and mixed mock modular forms in the lower half-plane*, **Archiv der Mathematik** **107** (2016), pp. 487–498.
12. A. Folsom and P. Jenkins, *Zeros of modular forms of half integral weight*, **Research in Number Theory** **2:23** (2016), 25pp.
13. 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.
14. A. Folsom, Y. Homma, J. Ryu, and B. Tong, *On a general class of non-squashing partitions*, **Discrete Mathematics** **339** iss. 5 (2016), pp. 1482–1506.
15. K. Bringmann, A. Folsom, and K. Mahlburg, *Quasimodular forms and $sl(m|m)$ characters*, **Ramanujan Journal** **36** (2015), pp. 103–116.
16. 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.
17. 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.

18. K. Bringmann, C. Calinescu, A. Folsom, and S. Kimport, *Graded dimensions of principal subspaces and modular Andrews-Gordon series*, **Communications in Contemporary Mathematics** 16 no. 4 (2014), 1350050, 20 pp.
19. 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.
20. A. Folsom, *Mock modular forms and d -distinct partitions*, **Advances in Mathematics** 254 (2014), pp. 682–705.
21. 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).
22. K. Bringmann and A. Folsom, *On a conjecture of B. Berndt and B. Kim*, **Ramanujan Journal** 32 (2013), pp. 1–4.
23. 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.
24. A. Folsom and S. Kimport, *Mock modular forms and singular combinatorial series*, **Acta Arithmetica** 159.3 (2013), pp. 257–297.
25. A. Folsom, K. Ono, and R.C. Rhoades, *Mock theta functions and quantum modular forms*, **Forum of Mathematics Pi** 1 (2013), pp. 1–27.
26. 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.
27. 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.
28. A. Folsom, Z. Kent, and K. Ono, *ℓ -adic properties of the partition function*, **Advances in Mathematics** 229 (2012), pp. 1586–1609.
29. A. Folsom, *Kac-Wakimoto characters and universal mock theta functions*, **Transactions of the American Mathematical Society** 363 no. 1 (2011), pp. 439–455.
30. A. Folsom and R. Masri, *The asymptotic distribution of traces of Maass-Poincaré series*, **Advances in Mathematics** 226 (2011), pp. 3724–3759.
31. A. Folsom, *Modular units and the q -difference equations of Selberg*, **Mathematical Research Letters** (17) no. 2 (2010), pp. 283–299.
32. A. Folsom, *Modularity and the distinct rank function*, **Ramanujan Journal** 23 (2010), pp. 183–193.
33. A. Folsom and R. Masri, *Equidistribution of Heegner points and the partition function*, **Mathematische Annalen** 348 no. 2 (2010), pp. 289–317.
34. K. Bringmann, A. Folsom, and K. Ono, *q -series and weight $3/2$ Maass forms*, **Compositio Mathematica** 145 (2009), pp. 541–552.
35. A. Folsom, *A characterization of the modular units*, **International Journal of Number Theory** (5) no. 2 (2009), pp. 303–310.
36. A. Folsom, *A short proof of the mock theta conjectures using Maass forms*, **Proceedings of the American Mathematical Society** 136 (2008), pp. 4143–4149.
37. 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.
38. 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.

39. 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.
40. A. Folsom, *Modular forms and Eisenstein’s continued fractions*, **Journal of Number Theory** 117 (2006), pp. 279–291.
41. 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 REVIEWS

40. A. Folsom and S. Payne, *Research with undergraduates*, **Notices of the American Mathematical Society**, vol. 66 no. 2, February 2019, 199–200.
41. A. Folsom, *Symmetry, almost*, **Notices of the American Mathematical Society**, vol. 66 no. 1, January 2019, 87–88.
42. A. Folsom, *Harmonic Maass forms and mock modular forms*, submitted. 8 pp.
43. A. Folsom, *False theta functions and modular forms*, submitted. 7 pp.
44. A. Folsom, *Quantum modular forms*, submitted. 5 pp.
45. A. Folsom, *Book Review: “My Search For Ramanujan” by K. Ono and A. Aczel*, **Bhavana** vol. 1 iss. 2., April 2017. 5 pp.
46. A. Folsom, *Perspectives on mock modular forms*, **Journal of Number Theory** 176 (2017), pp. 500–540.
47. 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.
48. A. Folsom, *WHAT IS... a mock modular form?*, **Notices of the American Mathematical Society** 57 iss. 11 (2010), pp. 1441–1443.
49. 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.

SELECTED TALKS

1. **MAA Invited Address**, Joint National Meetings, Baltimore Jan. 2019
2. **The Royal Society, London**, Ramanujan Centenary Meeting Oct. 2018
3. **The Legacy of Ramanujan, U. Illinois**, Plenary Speaker June 2019
4. **TORAS University of Oklahoma**, Keynote Speaker Mar. 2015
5. **Yale Science and Engineering Forum**, Plenary Speaker Apr. 2012
6. **PANTS VIII, U. South Carolina**, Plenary Speaker Dec. 2008

ADDITIONAL INVITED RESEARCH TALKS

7. **McGill University**, Colloquium and Seminar lectures May 2019
8. **University of Pennsylvania**, Seminar April 2019
9. **Bryn Mawr and Haverford Colleges**, Colloquium Feb. 2019
10. **Institute for Advanced Study, Princeton**, Member Seminar Feb. 2019
11. **Rice University**, Colloquium Nov. 2018
12. **Boston University**, Seminar May 2017
13. **Brown University**, Seminar Feb. 2017
14. **Bucknell University**, Distinguished Visitor, Colloquium Apr. 2016
15. **Penn. State University**, Seminar Apr. 2016
16. **Institute for Advanced Study, Princeton**, Member Seminar Feb. 2016
17. **Heidelberg University, Germany**, Colloquium Dec. 2015
18. **Max-Planck-Institut, Bonn, Germany**, Seminar Dec. 2015
19. **TU Darmstadt, Germany**, Seminar Dec. 2015
20. **University College, Dublin**, Seminar Nov. 2015
21. **SUNY Albany**, Colloquium Sept. 2015
22. **University of Cologne, Germany**, Seminar Jun. 2015
23. **Temple University**, Colloquium Apr. 2015

24. University of Massachusetts, Amherst , Geometry Seminar	Mar. 2015
25. Tulane University , Colloquium	Jan. 2015
26. Brandeis-Harvard-MIT-Northeastern , Joint Colloquium	Nov. 2014
27. Amherst College , Five College Number Theory Seminar	Sept. 2014
28. Wesleyan University , Colloquium	May 2014
29. Texas A&M University , Seminar	Apr. 2014
30. Yale University , Junior Colloquium	Apr. 2014
31. Johns Hopkins University , Colloquium	Oct./Nov. 2013
32. Heidelberg University, Germany , Seminar	May 2013
33. Max-Planck-Institut, Bonn, Germany , Oberseminar	Apr. 2013
34. Université de Nice, France , Seminar	Apr. 2013
35. University College Dublin, Ireland , Seminar	Apr. 2013
36. University of Cologne, Germany , Seminar	Apr. 2013
37. Brigham Young University , Colloquium	Jan. 2013
38. University of Wisconsin-Madison , Colloquium	Dec. 2012
39. University of Illinois, Urbana-Champaign , Seminar	Oct. 2012
40. Emory University , Seminar	Sept. 2012
41. Northeastern University , Seminar	Apr. 2012
42. University of Connecticut, Storrs , Seminar	Apr. 2012
43. Yale University , Seminar	Feb. 2012
44. Emory University , Seminar	Dec. 2011
45. University of Massachusetts, Amherst , Seminar	Nov. 2011
46. Northwestern University , Seminar	Apr. 2011
47. Boston College-MIT , Joint Seminar	Feb. 2011
48. CUNY Graduate Center , Seminar	Dec. 2010
49. SUNY Stony Brook , Seminar	Dec. 2010
50. University of Cologne, Germany , Seminar	Nov. 2010
51. MIT , ∞ -dim'l Lie Algebras Seminar	Oct. 2010
52. Wesleyan University , Colloquium	Oct. 2010
53. Yale University , Arithmetic Geometry Seminar	Sept. 2010
54. Yale University , Colloquium	Feb. 2010
55. University of Pittsburgh , Colloquium	Jan. 2010
56. University of Texas, Austin , Seminar	Jan. 2010
57. POSTECH, Pohang, Korea , Seminar	Dec. 2009
58. Rutgers University , Colloquium	Dec. 2009
59. Rice University , Colloquium	Nov. 2009
60. University of Wisconsin-Madison , Seminar	Sept. 2009
61. University of Wisconsin-Madison , Seminar	Nov. 2008
62. University College Dublin , Seminar	Feb. 2008
63. McMaster University, Canada , Arith. Geometry Seminar	Nov. 2007
64. Stanford University , Seminar	Nov. 2007
65. University of South Carolina , Seminar	Nov. 2007
66. University of Illinois, Urbana-Champaign , Seminar	Oct. 2007
67. University of Wisconsin-Madison , Seminar	Oct. 2007
68. Amherst College , Five College Number Theory Seminar	May 2007
69. University of Wisconsin-Madison , Seminar	May 2007
70. ETH Zurich, Switzerland , Seminar	Dec. 2006
71. Max-Planck-Institut, Bonn, Germany , Seminar	Sept. 2006
72. Princeton University , Seminar	May 2006
73. University of California, Los Angeles , Seminar	Feb. 2006
74. Boston University , Algebra Seminar	Nov. 2005
75. University of Wisconsin-Madison , Seminar	Feb. 2005
76. Harvard University , Graduate Student Seminar	Jul. 2004

CONFERENCE AND WORKSHOP TALKS	75. Modular forms and arithmetic, Atlanta , plenary speaker	Nov. 2020	
	76. Arithmetic, geometry and modular forms , ETH Zurich	Jun. 2019	
	77. Hawaii Number Theory Conference (HINT)	Mar. 2019	
	78. AMS Western Sectional, U. Hawaii , special session	Mar. 2019	
	79. Modularity and 3-manifolds, ICERM (Brown)	Mar. 2019	
	80. Connecticut Summer School in Number Theory, UConn	May 2018	
	81. Modular Forms and Quantum Knots, BIRS, Banff	Mar. 2018	
	82. AMS-MAA Joint Meetings, San Diego special session	Jan. 2018	
	83. AMS Eastern Sectional, Hunter College , closing speaker	May 2017	
	84. Connecticut Summer School in Number Theory, UConn	Aug. 2016	
	85. Gainesville Number Theory Conference, UFlorida	Mar. 2016	
	86. Illinois Number Theory Conference, UIUC	Aug. 2015	
	87. Assoc. Women in Math. Research Symposium, UMaryland	Apr. 2015	
	88. AMS-MAA Joint Meetings, San Antonio , special session	Jan. 2015	
	89. Southern California Number Theory Day, UC-Irvine	Oct. 2014	
	90. AMS Eastern Sectional, Temple University , special session	Oct. 2013	
	91. Ramanujan 125 , University of Florida	Nov. 2012	
	92. University of Illinois Number Theory Conference	Oct. 2012	
	93. Building Bridges: EU-US Conf. , Aachen Uni., Germany	Aug. 2012	
	94. Krupp Symposium , University of Cologne, Germany	Feb. 2012	
	95. AMS-MAA Joint Meetings, Boston , special session	Jan. 2012	
	96. Quebec-Maine Number Theory Conference	Oct. 2011	
	97. CUNY Conference on Symmetric Groups	Sept. 2011	
	98. AMS Eastern Spring Sectional, Holy Cross , special session	Apr. 2011	
	99. ICTP Conference on Mock Modular Forms , Trieste, Italy	Mar. 2011	
	100. AMS-MAA Joint Meetings, New Orleans , special session	Jan. 2011	
	101. AMS-CMS Joint Meeting , Pucon, Chile	Dec. 2010	
	102. University of Hawaii Workshop on Automorphic Forms	Mar. 2010	
	103. KMS-AMS Winter Meeting , Seoul, Korea	Dec. 2009	
	104. Mock ϑ-functions and Applications , MPIM Bonn, Germany	May 2009	
	105. 1047th Meeting of the AMS , UIUC	Mar. 2009	
	106. University of Florida Conference on Quadratic Forms	Mar. 2009	
	107. University of Hawaii Workshop on Automorphic Forms	May 2008	
	108. University of Florida Number Theory Conference	Mar. 2008	
	109. AMS-MAA Joint Meetings, San Diego , special session	Jan. 2008	
	110. SASTRA-Ramanujan Conference , Kumbakonam, India	Dec. 2007	
	111. The Fields Institute Workshop	Nov. 2007	
	112. Heini Halberstam's 80th Birthday Conference , UIUC	May 2007	
	113. 21st Automorphic Forms Workshop , UC-Santa Barbara	Mar. 2007	
	114. Jahrestagung der DMV , Uni. Bonn, Germany	Sept. 2006	
	115. 20th Automorphic Forms Workshop , UC-Boulder	Mar. 2006	
	116. 19th Automorphic Forms Workshop , U. North Texas	Mar. 2005	
	117. 18th Automorphic Forms Workshop , UC-Santa Barbara	Mar. 2004	
	118. Summer School in Analytic Num. Theory , Catalina, CA	Aug. 2003	
	119. AMS-MAA Joint Meetings, New Orleans , undergrad. prize	Jan. 2001	
	120. MAA Regional Meeting , St. Paul's School, NH	Jun. 2000	
	OTHER CONFERENCES AND MEETINGS	1. Simons Foundation, MPS Annual Meeting, NYC	Oct. 2018
		2. AMS-MAA Joint Meetings, Atlanta	Jan. 2017
		3. MAA Mathfest, Washington D.C.	Aug. 2015
		4. AIM SQuaREs Workshop	Jul. 2015
		5. REU Mini-Symposium at UConn	Jul. 2015
		6. University of Cologne , research visits 5/2011, 11/2011, 5/2012, 6/2015	
		7. Automorphic Forms Conf., CIRM Luminy, France	May 2015
		8. MAA Mathfest, Portland, OR	Aug. 2014
		9. REU Mini-Symposium at Yale	Jul. 2014
		10. AMS-MAA Joint Meetings, Baltimore	Jan. 2014

11. Simons Center Workshop: Mock/Moonshine/String	Aug. 2013
12. Mount Holyoke College, New Directions for REUs	Jun. 2013
13. Hypergeometric Series, Institut Henri Poincaré, Paris	May 2012
14. AIM Workshop on Cohen-Lenstra Heuristics	Jun. 2011
15. University College Dublin, research visit	May 2011
16. Emory University Conference on Partitions	Jan. 2011
17. AIM Workshop on Mock Modular Forms	Mar. 2010
18. AMS-MAA Joint National Meetings, San Francisco	Jan. 2010
19. Columbia U., D. Goldfeld's 60th Bday Conference	May 2007
20. Oxford Club NYC: Wiles/Du Sautoy (guest of F.H. Schott)	Apr. 2007
21. Conf. on Modular/Diophantine, MPIM Bonn, Germany	Feb. 2007
22. Universiteit Leiden, Netherlands, Intercity Num. Th.	Sept. 2006
23. Columbia University, Galois Repns./L-fns./Arithmetic	Jun. 2006
24. Princeton/IAS Zeta Functions Women's Program	May 2006
25. AMS-MAA Joint National Meetings, San Antonio	Jan. 2006
26. Southern California Number Theory Day, UC-Irvine	Oct. 2005
27. Gauss-Dirichlet Conference, Göttingen, Germany	Jun. 2005
28. Southern California Number Theory Day, UCSD	May 2005
29. University of Florida, Additive Number Theory	Nov. 2004

PH.D. STUDENT · S. Kimport (Yale University, '15), *Quantum modular forms, mock modular forms, and partial theta functions*. First Job: Stanford University, Lecturer

UNDERGRAD. THESIS STUDENTS · William (Jack) Wesley (Amherst, '18), *Combinatorial Proofs of Ramanujan's Congruences*. Co-recipient, Breusch Prize in Mathematics, Summa Cum Laude.
· Yen Nhi Truong Vu (Amherst, '17), *On the Modular Transformations and Asymptotic Behaviors of Mock Modular Forms*. Recipient, Breusch Prize in Mathematics, Summa Cum Laude.
· Edward Kim (Amherst, '15), *An Application of the Circle Method in Analytic Number Theory to the Partition Function*. Co-recipient, Breusch Prize in Mathematics, Summa Cum Laude.

UNDERGRAD. RESEARCH ADVISED · Summer 2018 (Amherst): G. Carroll '19, J. Corbett '19, A. Folsom, and E. Thieu '19, *Universal mock theta functions as quantum Jacobi forms*, Research in the Mathematical Sciences, accepted for publication. 15 pp.
· 2017–18 (Amherst): M. Barnett '18, A. Folsom, and W. Wesley '18, *Rank generating functions for odd-balanced unimodal sequences, quantum Jacobi forms and mock Jacobi forms*, submitted for publication. 16 pp.
· Summer 2017 (Amherst): M. Barnett '18, A. Folsom, O. Ukogu '18, W. Wesley '18, and H. Xu '18, *Quantum Jacobi forms and balanced unimodal sequences*, Journal of Number Theory 186 (2018), pp. 16-34.
· Summer 2015 (Amherst): A. Folsom, C. Ki '17, Y.N. Truong Vu '17, and B. Yang '18, *Strange combinatorial quantum modular forms*, Journal of Number Theory 170 (2017), pp. 315-346.
· Summer 2014 (Yale): co-founder/director of math. research program SUMRY with S. Payne, and research project advisor. A. Folsom, Y. Homma '16, J.H. Ryu '16, and B. Tong '17, *On a general class of non-squashing partitions*, Discrete Math, 229 (2016), 25pp.
· Summers 2007– 2010 (University of Wisconsin-Madison): NSF REU Instructor, P.I. Ken Ono. Advised/co-advised small groups of undergrads. from various U.S. institutions on original number theory research. 18 student papers submitted.

OTHER
ADVISING

- Women in Numbers 4, Research Project Advisor, BIRS Banff Aug. 2017 – present
- Mentor, Association for Women in Math. Mentor Network 2015 – present
- Mentor, MAA Project NExT 2017 – present
- Course & Research Assistant, Arizona Winter School March 2013

CONFERENCES
ORGANIZED

- AMS Spring Central/Western Joint Sectional Meeting, U. Hawaii March 2019
- AMS-MAA National Meeting, MAA special session, Baltimore Jan. 2019
- 32nd Automorphic Forms Workshop, Tufts, NSF funded (co-P.I.) March 2018
- CTNT Summer School & Research Conference, NSF funded (co-P.I.) 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, AMS Washington D.C. Jan. 2009

TEACHING
EXPERIENCE

Amherst College (2014–present)

- Math 111: Introduction to the Calculus F14, S15, S17, F17, S18
- Math 225: Fractal Geometry F14, F16
- Math 281: Combinatorics* F17
- Math 310: Introduction to the Theory of Partitions* F16
- Math 350: Groups, Rings and Fields (Abstract Algebra) S15
- Math 460: Analytic Number Theory* S18

Yale University (2010–2014)

- Math 112a: Calculus of Functions of One Variable F11, Su13
- Math 222a: Linear Algebra with Applications F13
- Math 290b: Fractal Geometry S12, S14
- Math 354b: Number Theory S12
- Math 355b: Geometric Algebra S11
- Math 632a: Graduate Modular Forms* F10
- Math 634b: Graduate Harmonic Maas Forms* S14
- Seminar: Lang Lunch Graduate Teaching Seminar Instructor S12

University of Wisconsin, Madison (2008–2010)

- Math 320: Linear Algebra and Diff. Eq. F09, S10
- Math 421: The Theory of Calculus S09
- Math 748: Graduate Algebraic Number Theory F08

University of California, Los Angeles (2002-2004)

- T.A. for Calculus, Honors Calculus, Diff. Eq., Linear Alg. 2002–04
- PEERS Calculus for underrepresented minority students 2003–04

**introduced to the College/University curriculum*

DEPARTMENT
AND COLLEGE
SERVICE

Amherst College

- Faculty Committee on Admission and Financial Aid (FCAFA) 2016–18
- Ad-Hoc Faculty Committee on Athletics 2016–18
- New Student Orientation Advisor Summers 2016, 2017
- Mathematics Comprehensive Exam Co-Organizer/Advisor 2016–18
- Honors Thesis Advisor (3 students) 2014–present
- Mathematics Major Advisor 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

FUNDING ADVISORY PANELS

- **National Science Foundation**, Grant Panels
- **National Security Agency**, Grant Panels

PUBLIC AND UNDERGRAD. EVENTS

- **College of the Holy Cross**, PME undergrad. colloquium May 2017
- **Queer Resource Ctr.**, Amherst Coll., documentary interview Jun. 2015
- **Queer Resource Ctr.**, Amherst Coll., faculty-student panel Apr. 2015
- **Women's & Gender Ctr.** Amherst Coll., faculty-student panel Oct. 2014
- **Center for Women in Math.**, Smith Coll., undergrad. lecture Oct. 2014
- **Yale Math Club (YUMS)**, undergraduate lecture Apr. 2014
- **Amherst College**, undergrad lecture Jan. 2014
- **Yale University Math Mornings**, public lecture Nov. 2013
- **Center for Women in Math.**, Smith Coll., undergrad. lecture Nov. 2012
- **Emory U.**, Environmental Sci. 120, undergraduate lecture Oct. 2012
- **UConn**, Preparing Future Faculty, panelist Apr. 2012
- **Naugatuck Valley Comm. Coll.**, Women in Science speaker Mar. 2012
- **Yale Math Club (YUMS)**, undergraduate lecture Sept. 2011
- **Tilde Cafe, Branford, CT**, public lecture/local TV Mar. 2011
- **MAA Joint Meetings, New Orleans**, undergraduate lecture Jan. 2011
- **MIT: Women in Mathematics Lectures** Oct. 2010
- **UW-Madison Math Club**, undergraduate lecture Apr. 2009
- **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.

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.