

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

49 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. G. Carroll, J. Corbett, A. Folsom, and E. Thieu, *Universal mock theta functions as quantum Jacobi forms*, **Research in the Mathematical Sciences**, accepted for publication. 15 pp.
3. M. Barnett, A. Folsom, and W. Wesley, *Rank generating functions for odd-balanced unimodal sequences, quantum Jacobi forms and mock Jacobi forms*, submitted. 16 pp.
4. 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.
5. 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.
6. 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.
7. K. Bringmann and A. Folsom, *Quantum Jacobi forms and finite evaluations of unimodal rank generating functions*, **Archiv der Mathematik** 107 (2016), pp. 367–378.
8. 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.
9. A. Folsom, *Mock and mixed mock modular forms in the lower half-plane*, **Archiv der Mathematik** 107 (2016), pp. 487–498.
10. A. Folsom and P. Jenkins, *Zeros of modular forms of half integral weight*, **Research in Number Theory** 2:23 (2016), 25pp.
11. 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.
12. 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.
13. K. Bringmann, A. Folsom, and K. Mahlburg, *Quasimodular forms and $sl(m|m)$ characters*, **Ramanujan Journal** 36 (2015), pp. 103–116.
14. 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.
15. 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.
16. 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.
17. 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.

18. A. Folsom, *Mock modular forms and d -distinct partitions*, **Advances in Mathematics** 254 (2014), pp. 682–705.
19. 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).
20. K. Bringmann and A. Folsom, *On a conjecture of B. Berndt and B. Kim*, **Ramanujan Journal** 32 (2013), pp. 1–4.
21. 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.
22. A. Folsom and S. Kimport, *Mock modular forms and singular combinatorial series*, **Acta Arithmetica** 159.3 (2013), pp. 257–297.
23. A. Folsom, K. Ono, and R.C. Rhoades, *Mock theta functions and quantum modular forms*, **Forum of Mathematics Pi** 1 (2013), pp. 1–27.
24. 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.
25. 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.
26. A. Folsom, Z. Kent, and K. Ono, *ℓ -adic properties of the partition function*, **Advances in Mathematics** 229 (2012), pp. 1586–1609.
27. A. Folsom, *Kac-Wakimoto characters and universal mock theta functions*, **Transactions of the American Mathematical Society** 363 no. 1 (2011), pp. 439–455.
28. A. Folsom and R. Masri, *The asymptotic distribution of traces of Maass-Poincaré series*, **Advances in Mathematics** 226 (2011), pp. 3724–3759.
29. A. Folsom, *Modular units and the q -difference equations of Selberg*, **Mathematical Research Letters** (17) no. 2 (2010), pp. 283–299.
30. A. Folsom, *Modularity and the distinct rank function*, **Ramanujan Journal** 23 (2010), pp. 183–193.
31. A. Folsom and R. Masri, *Equidistribution of Heegner points and the partition function*, **Mathematische Annalen** 348 no. 2 (2010), pp. 289–317.
32. K. Bringmann, A. Folsom, and K. Ono, *q -series and weight $3/2$ Maass forms*, **Compositio Mathematica** 145 (2009), pp. 541–552.
33. A. Folsom, *A characterization of the modular units*, **International Journal of Number Theory** (5) no. 2 (2009), pp. 303–310.
34. A. Folsom, *A short proof of the mock theta conjectures using Maass forms*, **Proceedings of the American Mathematical Society** 136 (2008), pp. 4143–4149.
35. 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.
36. 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.
37. 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.
38. A. Folsom, *Modular forms and Eisenstein’s continued fractions*, **Journal of Number Theory** 117 (2006), pp. 279–291.

39. 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**, to appear in February 2019. 2 pp.
41. A. Folsom, *Symmetry, almost*, **Notices of the American Mathematical Society**, to appear in January 2019. 3 pp.
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

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|--------------------------------------------------------------------|-----------|
| 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

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| 7. McGill University , Colloquium and Seminar lectures | May 2019 |
| 8. University of Pennsylvania , Seminar | TBD 2018-19 |
| 9. Rice University , Colloquium | Nov. 2018 |
| 10. Boston University , Seminar | May 2017 |
| 11. Brown University , Seminar | Feb. 2017 |
| 12. Bucknell University , Distinguished Visitor, Colloquium | Apr. 2016 |
| 13. Penn. State University , Seminar | Apr. 2016 |
| 14. Institute for Advanced Study, Princeton , Member Seminar | Feb. 2016 |
| 15. Heidelberg University, Germany , Colloquium | Dec. 2015 |
| 16. Max-Planck-Institut, Bonn, Germany , Seminar | Dec. 2015 |
| 17. TU Darmstadt, Germany , Seminar | Dec. 2015 |
| 18. University College, Dublin , Seminar | Nov. 2015 |
| 19. SUNY Albany , Colloquium | Sept. 2015 |
| 20. University of Cologne, Germany , Seminar | Jun. 2015 |
| 21. Temple University , Colloquium | Apr. 2015 |
| 22. University of Massachusetts, Amherst , Geometry Seminar | Mar. 2015 |
| 23. Tulane University , Colloquium | Jan. 2015 |
| 24. Brandeis-Harvard-MIT-Northeastern , Joint Colloquium | Nov. 2014 |
| 25. Amherst College , Five College Number Theory Seminar | Sept. 2014 |
| 26. Wesleyan University , Colloquium | May 2014 |
| 27. Texas A&M University , Seminar | Apr. 2014 |
| 28. Yale University , Junior Colloquium | Apr. 2014 |
| 29. Johns Hopkins University , Colloquium | Oct./Nov. 2013 |

30. Heidelberg University, Germany, Seminar	May 2013
31. Max-Planck-Institut, Bonn, Germany, Oberseminar	Apr. 2013
32. Université de Nice, France, Seminar	Apr. 2013
33. University College Dublin, Ireland, Seminar	Apr. 2013
34. University of Cologne, Germany, Seminar	Apr. 2013
35. Brigham Young University, Colloquium	Jan. 2013
36. University of Wisconsin-Madison, Colloquium	Dec. 2012
37. University of Illinois, Urbana-Champaign, Seminar	Oct. 2012
38. Emory University, Seminar	Sept. 2012
39. Northeastern University, Seminar	Apr. 2012
40. University of Connecticut, Storrs, Seminar	Apr. 2012
41. Yale University, Seminar	Feb. 2012
42. Emory University, Seminar	Dec. 2011
43. University of Massachusetts, Amherst, Seminar	Nov. 2011
44. Northwestern University, Seminar	Apr. 2011
45. Boston College-MIT, Joint Seminar	Feb. 2011
46. CUNY Graduate Center, Seminar	Dec. 2010
47. SUNY Stony Brook, Seminar	Dec. 2010
48. University of Cologne, Germany, Seminar	Nov. 2010
49. MIT, ∞ -dim'l Lie Algebras Seminar	Oct. 2010
50. Wesleyan University, Colloquium	Oct. 2010
51. Yale University, Arithmetic Geometry Seminar	Sept. 2010
52. Yale University, Colloquium	Feb. 2010
53. University of Pittsburgh, Colloquium	Jan. 2010
54. University of Texas, Austin, Seminar	Jan. 2010
55. POSTECH, Pohang, Korea, Seminar	Dec. 2009
56. Rutgers University, Colloquium	Dec. 2009
57. Rice University, Colloquium	Nov. 2009
58. University of Wisconsin-Madison, Seminar	Sept. 2009
59. University of Wisconsin-Madison, Seminar	Nov. 2008
60. University College Dublin, Seminar	Feb. 2008
61. McMaster University, Canada, Arith. Geometry Seminar	Nov. 2007
62. Stanford University, Seminar	Nov. 2007
63. University of South Carolina, Seminar	Nov. 2007
64. University of Illinois, Urbana-Champaign, Seminar	Oct. 2007
65. University of Wisconsin-Madison, Seminar	Oct. 2007
66. Amherst College, Five College Number Theory Seminar	May 2007
67. University of Wisconsin-Madison, Seminar	May 2007
68. ETH Zurich, Switzerland, Seminar	Dec. 2006
69. Max-Planck-Institut, Bonn, Germany, Seminar	Sept. 2006
70. Princeton University, Seminar	May 2006
71. University of California, Los Angeles, Seminar	Feb. 2006
72. Boston University, Algebra Seminar	Nov. 2005
73. University of Wisconsin-Madison, Seminar	Feb. 2005
74. Harvard University, Graduate Student Seminar	Jul. 2004
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. Connecticut Summer School in Number Theory, UConn	May 2018
80. Modular Forms and Quantum Knots, BIRS, Banff	Mar. 2018
81. AMS-MAA Joint Meetings, San Diego special session	Jan. 2018
82. AMS Eastern Sectional, Hunter College, closing speaker	May 2017
83. Connecticut Summer School in Number Theory, UConn	Aug. 2016
84. Gainesville Number Theory Conference, UFlorida	Mar. 2016
85. Illinois Number Theory Conference, UIUC	Aug. 2015

CONFERENCE
AND
WORKSHOP
TALKS

86. **Assoc. Women in Math. Research Symposium**, UMaryland Apr. 2015
87. **AMS-MAA Joint Meetings, San Antonio**, special session Jan. 2015
88. **Southern California Number Theory Day**, UC-Irvine Oct. 2014
89. **AMS Eastern Sectional, Temple University**, special session Oct. 2013
90. **Ramanujan 125**, University of Florida Nov. 2012
91. **University of Illinois Number Theory Conference** Oct. 2012
92. **Building Bridges: EU-US Conf.**, Aachen Uni., Germany Aug. 2012
93. **Krupp Symposium**, University of Cologne, Germany Feb. 2012
94. **AMS-MAA Joint Meetings, Boston**, special session Jan. 2012
95. **Quebec-Maine Number Theory Conference** Oct. 2011
96. **CUNY Conference on Symmetric Groups** Sept. 2011
97. **AMS Eastern Spring Sectional, Holy Cross**, special session Apr. 2011
98. **ICTP Conference on Mock Modular Forms**, Trieste, Italy Mar. 2011
99. **AMS-MAA Joint Meetings, New Orleans**, special session Jan. 2011
100. **AMS-CMS Joint Meeting**, Pucon, Chile Dec. 2010
101. **University of Hawaii Workshop on Automorphic Forms** Mar. 2010
102. **KMS-AMS Winter Meeting**, Seoul, Korea Dec. 2009
103. **Mock ϑ -functions and Applications**, MPIM Bonn, Germany May 2009
104. **1047th Meeting of the AMS**, UIUC Mar. 2009
105. **University of Florida Conference on Quadratic Forms** Mar. 2009
106. **University of Hawaii Workshop on Automorphic Forms** May 2008
107. **University of Florida Number Theory Conference** Mar. 2008
108. **AMS-MAA Joint Meetings, San Diego**, special session Jan. 2008
109. **SASTRA-Ramanujan Conference**, Kumbakonam, India Dec. 2007
110. **The Fields Institute Workshop** Nov. 2007
111. **Heini Halberstam's 80th Birthday Conference**, UIUC May 2007
112. **21st Automorphic Forms Workshop**, UC-Santa Barbara Mar. 2007
113. **Jahrestagung der DMV**, Uni. Bonn, Germany Sept. 2006
114. **20th Automorphic Forms Workshop**, UC-Boulder Mar. 2006
115. **19th Automorphic Forms Workshop**, U. North Texas Mar. 2005
116. **18th Automorphic Forms Workshop**, UC-Santa Barbara Mar. 2004
117. **Summer School in Analytic Num. Theory**, Catalina, CA Aug. 2003
118. **AMS-MAA Joint Meetings, New Orleans**, undergrad. prize Jan. 2001
119. **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.

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