

# AMANDA L. FOLSOM

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CONTACT INFORMATION	Amherst College Department of Mathematics and Statistics Amherst, MA 01002	<a href="https://afolsom.people.amherst.edu">https://afolsom.people.amherst.edu</a> afolsom@amherst.edu
RESEARCH INTERESTS	Analytic and Algebraic Number Theory, Harmonic Maass Forms, Modular Forms, Jacobi Forms, Mock and Quantum Modular Forms, Combinatorics, Lie Theory	
EDUCATION	<b>Ph.D. Mathematics</b> University of California, Los Angeles Jun. 2006 <i>Advisor: William D. Duke</i>	
	<b>M.S. Mathematics</b> University of California, Los Angeles Dec. 2002	
	<b>B.A. Mathematics</b> University of Chicago (with honors) Jun. 2001	
EMPLOYMENT	<ul style="list-style-type: none"><li>· <b>Amherst College</b> Bicentennial Professor 2022 – present</li><li>Full Professor 2019 – present</li><li>Department Chair 2019 – 2021</li><li>Associate Professor 2014 – 2019</li><li>· <b>Yale University</b> Associate Professor 2014</li><li>Assistant Professor 2010 – 2014</li><li>· <b>University of Wisconsin-Madison</b> NSF Postdoctoral Fellow 2007 – 2010</li><li>· <b>Max-Planck-Institut für Mathematik, Bonn</b> Postdoc 2006 – 2007</li></ul>	
VISITING POSITIONS <i>(most while on sabbatical leaves)</i>	<ul style="list-style-type: none"><li>· <b>Institute for Advanced Study, Princeton</b> Spring 2019, Spring 2016 von Neumann Fellow and Member</li><li>· <b>Max-Planck-Institut, Bonn</b> Summer 2022, Fall 2015, Spring 2013 Visiting Scientist</li><li>· <b>Emory University</b> Fall 2012</li></ul>	
GRANTS AND AWARDS	<ul style="list-style-type: none"><li>· <b>National Science Foundation Grant (P.I.)</b> 2022 – 2025 DMS-2200728, \$273,250</li><li>· <b>AMS Mary P. Dolciani Prize for Excellence in Research</b> 2021</li><li>· <b>National Science Foundation Grant (P.I.)</b> 2019 – 2022 DMS-1901791, \$252,174</li><li>· <b>A.M. (hon.), Amherst College</b> 2019</li><li>· <b>Simons Fellow in Mathematics</b>, Simons Foundation 2018 – 2019 ID 561663, \$112,155</li><li>· <b>Prose Award, Association of American Publishers</b> 2018 Best Scholarly Book in Mathematics</li><li>· <b>National Science Foundation CAREER Grant (P.I.)</b> 2013 – 2019 DMS-1449679 and DMS-1252815, \$437,000</li><li>· <b>Institute for Advanced Study, Princeton</b> Spring 2019, Spring 2016 von Neumann Fellowship and Member</li><li>· <b>National Science Foundation Conference Grants (co-P.I.)</b> DMS-1608789, \$25,000 (CT Summer School in Number Theory) 2016 DMS-1802058, \$21,000 (Automorphic Forms Workshop) 2018</li><li>· <b>Amherst College Trustee Faculty Fellowship</b> 2015 – 2016</li><li>· <b>Yale University Junior Faculty Fellowship</b> 2012 – 2013</li><li>· <b>National Science Foundation Grant (P.I.)</b> 2010 – 2013 DMS-1049553, \$75,875</li><li>· <b>National Science Foundation Postdoctoral Fellowship (P.I.)</b> 2007 – 2010 DMS-0701461, \$108,000</li><li>· <b>University of Wisconsin-Madison Honored Instructors Award</b> 2009</li><li>· <b>University of California Dissertation Year Fellowship</b> 2005 – 2006</li><li>· <b>UCLA Graduate Research Mentorship Fellowship</b> 2004 – 2005</li><li>· <b>National Science Foundation VIGRE Graduate Fellow</b> 2001 – 2002</li><li>· <b>Salutatorian, BFHS</b> 1997</li></ul>	

EDITORIAL  
BOARDS

- **Proceedings of the Amer. Math. Soc.** (AMS)
  - Coordinating Editor in Algebra, Number Theory, and Logic 2021 – present
  - Editorial Board Member 2018 – present
- **La Matematica, Assoc. for Women in Math.** (Springer)
  - Editorial Board Member 2021 – present
- **Journal of Number Theory** (Elsevier)
  - Associate Editor 2017 – present
- **Research in Number Theory** (Springer)
  - Editorial Board Member 2014 – present
- **Ramanujan Journal** (Springer)
  - Editorial Board Member 2021 – present
- **Involve** (MSP)
  - Editorial Board Member 2021 – present
- **Essential Number Theory** (MSP)
  - Editorial Board Member 2021 – present
- **Research Directions in Number Thy., Women in Numbers 4**
  - Co-Editor (Springer-AWM book volume) 2017 – 2019

PROFESSIONAL  
COMMITTEES

- **American Mathematical Society** (AMS)
  - Mary P. Dolciani Prize for Excellence in Research Committee 2022 – present
- **Mathematical Association of America** (MAA)
  - Committee on Invited Paper Sessions 2020 – present

PUBLICATIONS

**61 total publications.** Publications are available at:  
<https://afolsom.people.amherst.edu/Publications.html>

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**I. BOOK**

1. K. Bringmann, A. Folsom, K. Ono, and L. Rolén, *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. C. Ballantine and A. Folsom, *On the number of parts in all partitions enumerated by the Rogers-Ramanujan identities*, submitted for publication, (2022). 16pp.
3. C. Ballantine, H. Burson, A. Folsom, C-Y Hsu, I. Negrini, and B. Wen, *Mock theta functions and related combinatorics*, submitted for publication, (2022). 28pp.
4. A. M. Dietrich, A. Folsom, K. Ng, C. Stewart, and S. Xu, *Overpartition ranks and quantum modular forms*, **Research in Number Theory** 8:45 (2022). 16pp.
5. C. Ballantine, H. Burson, A. Folsom, C-Y Hsu, I. Negrini, and B. Wen, *On a Partition Identity of Lehmer*, **Discrete Mathematics** 345 (2022). 26pp.
6. A. Folsom, E. Pratt, N. Solomon, and A.R. Tawfeek, *Quantum Jacobi forms and sums of tails identities*, **Research in Number Theory** 8:8 (2022). 24pp.
7. A. Folsom, *Asymptotic expansions, partial theta functions, and radial limit differences of mock modular and modular forms*, **International Journal of Number Theory** Vol. 17, No. 2 (2021) 425–434.
8. A. Folsom, *Twisted Eisenstein series, cotangent-zeta sums, and quantum modular forms*, **Transactions of the London Mathematical Society**, 7(1) (2020), pp. 33–48.
9. A. Folsom, M-J Jang, S. Kimport, and H. Swisher, *Quantum modular forms and singular combinatorial series with repeated roots of unity*, **Acta Arithmetica**, 194.4 (2020), pp. 393–421.

10. M. Barnett, A. Folsom, and W. Wesley, *Rank generating functions for odd-balanced unimodal sequences, quantum Jacobi forms and mock Jacobi forms*, **Journal of the Australian Mathematical Society** 109 (2020), 157-175.
11. A. Folsom, *Quantum Jacobi forms in number theory, topology, and mathematical physics*, **Research in the Mathematical Sciences**, 6:25 (2019). 34pp.
12. 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.
13. 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**. Association for Women in Mathematics Series, vol. 19. Springer, (2019). pp. 173–195.
14. 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.
15. 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.
16. 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.
17. K. Bringmann and A. Folsom, *Quantum Jacobi forms and finite evaluations of unimodal rank generating functions*, **Archiv der Mathematik** 107 (2016), pp. 367–378.
18. 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.
19. A. Folsom, *Mock and mixed mock modular forms in the lower half-plane*, **Archiv der Mathematik** 107 (2016), pp. 487–498.
20. A. Folsom and P. Jenkins, *Zeros of modular forms of half integral weight*, **Research in Number Theory** 2:23 (2016), 25pp.
21. 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.
22. K. Bringmann, A. Folsom, and K. Mahlburg, *Quasimodular forms and  $sl(m|m)$  characters*, **Ramanujan Journal** 36 (2015), pp. 103–116.
23. 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.
24. 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.
25. 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.
26. 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.
27. A. Folsom, *Mock modular forms and  $d$ -distinct partitions*, **Advances in Mathematics** 254 (2014), pp. 682–705.

28. 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).
29. K. Bringmann and A. Folsom, *On a conjecture of B. Berndt and B. Kim*, **Ramanujan Journal** 32 (2013), pp. 1–4.
30. 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.
31. A. Folsom and S. Kimport, *Mock modular forms and singular combinatorial series*, **Acta Arithmetica** 159.3 (2013), pp. 257–297.
32. A. Folsom, K. Ono, and R.C. Rhoades, *Mock theta functions and quantum modular forms*, **Forum of Mathematics Pi** 1 (2013), pp. 1–27.
33. 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.
34. 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.
35. A. Folsom, Z. Kent, and K. Ono,  *$\ell$ -adic properties of the partition function*, **Advances in Mathematics** 229 (2012), pp. 1586–1609.
36. A. Folsom, *Kac-Wakimoto characters and universal mock theta functions*, **Transactions of the American Mathematical Society** 363 no. 1 (2011), pp. 439–455.
37. A. Folsom and R. Masri, *The asymptotic distribution of traces of Maass-Poincaré series*, **Advances in Mathematics** 226 (2011), pp. 3724–3759.
38. A. Folsom, *Modular units and the  $q$ -difference equations of Selberg*, **Mathematical Research Letters** (17) no. 2 (2010), pp. 283–299.
39. A. Folsom, *Modularity and the distinct rank function*, **Ramanujan Journal** 23 (2010), pp. 183–193.
40. A. Folsom and R. Masri, *Equidistribution of Heegner points and the partition function*, **Mathematische Annalen** 348 no. 2 (2010), pp. 289–317.
41. K. Bringmann, A. Folsom, and K. Ono,  *$q$ -series and weight  $3/2$  Maass forms*, **Compositio Mathematica** 145 (2009), pp. 541–552.
42. A. Folsom, *A characterization of the modular units*, **International Journal of Number Theory** (5) no. 2 (2009), pp. 303–310.
43. A. Folsom, *A short proof of the mock theta conjectures using Maass forms*, **Proceedings of the American Mathematical Society** 136 (2008), pp. 4143–4149.
44. 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.
45. 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.
46. 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.
47. A. Folsom, *Modular forms and Eisenstein's continued fractions*, **Journal of Number Theory** 117 (2006), pp. 279–291.
48. 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

49. A. Folsom and A. Kontorovich, *Advice for the campus interview*, **Notices of the American Mathematical Society**, vol. 66, no. 10, November 2019, 1651-1655.
50. A. Folsom, *Asymptotics and Ramanujan's mock theta functions: then and now*,\* **Philosophical Transactions of the Royal Society A**, 378 no. 2163, (2020). 13 pp.  
\***Note.** *This article is largely expository but does contain one new result.*
51. A. Folsom and S. Payne, *Research with undergraduates*, **Notices of the American Mathematical Society**, vol. 66 no. 2, February 2019, 199-200.
52. A. Folsom, *Symmetry, almost*, **Notices of the American Mathematical Society**, vol. 66 no. 1, January 2019, 87-88.
53. A. Folsom, *Harmonic Maass forms and mock modular forms*, submitted. 8 pp.
54. A. Folsom, *False theta functions and modular forms*, submitted. 7 pp.
55. A. Folsom, *Quantum modular forms*, submitted. 5 pp.
56. A. Folsom, *A Century of Answering the Question: What Is a Mock Theta Function*, submitted. 1 pp.
57. A. Folsom, *Book Review: "My Search For Ramanujan" by K. Ono and A. Aczel*, **Bhavana** vol. 1 iss. 2., April 2017. 5 pp.
58. A. Folsom, *Perspectives on mock modular forms*, **Journal of Number Theory** 176 (2017), pp. 500-540.
59. 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.
60. A. Folsom, *WHAT IS... a mock modular form?*, **Notices of the American Mathematical Society** 57 iss. 11 (2010), pp. 1441-1443.
61. 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.

### IV. BOOKS EDITED

60. *Research Directions in Number Theory: Women in Numbers IV*.  
Editors: J.S. Balakrishnan, A. Folsom, M. Lalin, and M. Manes.  
Association for Women in Mathematics Series, vol. 19. (Series Editor: K. Lauter.) Springer International Publishing, 2019. xix + 195pp.

#### SELECTED INVITED TALKS

1. **Dresden Lectures, Swarthmore College**, Invited Lectures Oct. 2022
2. **Oliver Lecturer & Class of 1960 Speaker, Williams College** Sept. 2022
3. **MAA Invited Address**, Joint National Meetings, Baltimore Jan. 2019
4. **The Royal Society, London**, Ramanujan Centenary Meeting Oct. 2018
5. **The Legacy of Ramanujan, U. Illinois**, Plenary Speaker June 2019
6. **TORAS University of Oklahoma**, Keynote Speaker Mar. 2015
7. **Yale Science and Engineering Forum**, Plenary Speaker Apr. 2012
8. **PANTS VIII, U. South Carolina**, Plenary Speaker Dec. 2008

#### ADDITIONAL INVITED RESEARCH TALKS

9. **Northeastern University**, Graduate Student Seminar Oct. 2022
10. **University of Virginia**, REU Colloquium July 2022
11. **TU-Darmstadt, Germany**, Seminar (Zoom) Apr. 2021
12. **City College of New York**, Colloquium (Zoom) Apr. 2021
13. **Vanderbilt University**, Seminar (Zoom) Dec. 2020
14. **UCLA**, Seminar (Zoom) Dec. 2020

15. <b>University of Bristol, UK</b> , Seminar (Zoom)	Dec. 2020
16. <b>St. Petersburg State University, Russia</b> , Seminar (Zoom)	Dec. 2020
17. <b>Fairfield University</b> , Colloquium	Nov. 2019
18. <b>McGill University</b> , Colloquium	May 2019
19. <b>University of Pennsylvania</b> , Seminar	April 2019
20. <b>Bryn Mawr and Haverford Colleges</b> , Colloquium	Feb. 2019
21. <b>Institute for Advanced Study, Princeton</b> , Member Seminar	Feb. 2019
22. <b>Rice University</b> , Colloquium	Nov. 2018
23. <b>Boston University</b> , Seminar	May 2017
24. <b>Brown University</b> , Seminar	Feb. 2017
25. <b>Bucknell University</b> , Distinguished Visitor, Colloquium	Apr. 2016
26. <b>Penn. State University</b> , Seminar	Apr. 2016
27. <b>Institute for Advanced Study, Princeton</b> , Member Seminar	Feb. 2016
28. <b>Heidelberg University, Germany</b> , Colloquium	Dec. 2015
29. <b>Max-Planck-Institut, Bonn, Germany</b> , Seminar	Dec. 2015
30. <b>TU Darmstadt, Germany</b> , Seminar	Dec. 2015
31. <b>University College, Dublin</b> , Seminar	Nov. 2015
32. <b>SUNY Albany</b> , Colloquium	Sept. 2015
33. <b>University of Cologne, Germany</b> , Seminar	Jun. 2015
34. <b>Temple University</b> , Colloquium	Apr. 2015
35. <b>University of Massachusetts, Amherst</b> , Geometry Seminar	Mar. 2015
36. <b>Tulane University</b> , Colloquium	Jan. 2015
37. <b>Brandeis-Harvard-MIT-Northeastern</b> , Joint Colloquium	Nov. 2014
38. <b>Amherst College</b> , Five College Number Theory Seminar	Sept. 2014
39. <b>Wesleyan University</b> , Colloquium	May 2014
40. <b>Texas A&amp;M University</b> , Seminar	Apr. 2014
41. <b>Yale University</b> , Junior Colloquium	Apr. 2014
42. <b>Johns Hopkins University</b> , Colloquium	Oct./Nov. 2013
43. <b>Heidelberg University, Germany</b> , Seminar	May 2013
44. <b>Max-Planck-Institut, Bonn, Germany</b> , Oberseminar	Apr. 2013
45. <b>Université de Nice, France</b> , Seminar	Apr. 2013
46. <b>University College Dublin, Ireland</b> , Seminar	Apr. 2013
47. <b>University of Cologne, Germany</b> , Seminar	Apr. 2013
48. <b>Brigham Young University</b> , Colloquium	Jan. 2013
49. <b>University of Wisconsin-Madison</b> , Colloquium	Dec. 2012
50. <b>University of Illinois, Urbana-Champaign</b> , Seminar	Oct. 2012
51. <b>Emory University</b> , Seminar	Sept. 2012
52. <b>Northeastern University</b> , Seminar	Apr. 2012
53. <b>University of Connecticut, Storrs</b> , Seminar	Apr. 2012
54. <b>Yale University</b> , Seminar	Feb. 2012
55. <b>Emory University</b> , Seminar	Dec. 2011
56. <b>University of Massachusetts, Amherst</b> , Seminar	Nov. 2011
57. <b>Northwestern University</b> , Seminar	Apr. 2011
58. <b>Boston College-MIT</b> , Joint Seminar	Feb. 2011
59. <b>CUNY Graduate Center</b> , Seminar	Dec. 2010
60. <b>SUNY Stony Brook</b> , Seminar	Dec. 2010
61. <b>University of Cologne, Germany</b> , Seminar	Nov. 2010
62. <b>MIT</b> , $\infty$ -dim'l Lie Algebras Seminar	Oct. 2010
63. <b>Wesleyan University</b> , Colloquium	Oct. 2010
64. <b>Yale University</b> , Arithmetic Geometry Seminar	Sept. 2010
65. <b>Yale University</b> , Colloquium	Feb. 2010
66. <b>University of Pittsburgh</b> , Colloquium	Jan. 2010
67. <b>University of Texas, Austin</b> , Seminar	Jan. 2010
68. <b>POSTECH, Pohang, Korea</b> , Seminar	Dec. 2009
69. <b>Rutgers University</b> , Colloquium	Dec. 2009
70. <b>Rice University</b> , Colloquium	Nov. 2009
71. <b>University of Wisconsin-Madison</b> , Seminar	Sept. 2009
72. <b>University of Wisconsin-Madison</b> , Seminar	Nov. 2008

CONFERENCE  
AND  
WORKSHOP  
TALKS

73. University College Dublin, Seminar	Feb. 2008
74. McMaster University, Canada, Arith. Geometry Seminar	Nov. 2007
75. Stanford University, Seminar	Nov. 2007
76. University of South Carolina, Seminar	Nov. 2007
77. University of Illinois, Urbana-Champaign, Seminar	Oct. 2007
78. University of Wisconsin-Madison, Seminar	Oct. 2007
79. Amherst College, Five College Number Theory Seminar	May 2007
80. University of Wisconsin-Madison, Seminar	May 2007
81. ETH Zurich, Switzerland, Seminar	Dec. 2006
82. Max-Planck-Institut, Bonn, Germany, Seminar	Sept. 2006
83. Princeton University, Seminar	May 2006
84. University of California, Los Angeles, Seminar	Feb. 2006
85. Boston University, Algebra Seminar	Nov. 2005
86. University of Wisconsin-Madison, Seminar	Feb. 2005
87. Harvard University, Graduate Student Seminar	Jul. 2004
88. Joint Math. Meetings, Boston, special sessions (2 talks)	Jan. 2023
89. Spec( $\mathbb{Q}$ ), Fields Institute, Toronto	July 2022
90. 100 years of mock theta functions, Vanderbilt,	May 2022
91. AMS Western Sectional, U. Denver, special session	May 2022
92. Joint Math. Meetings, Seattle, special sessions (2 talks)	April 2022
93. LGBTQ+ Math Day, Fields Institute, keynote speaker	Nov. 2021
94. Subbarao Centenary Symposium, IISER, India (virtual)	July 2021
95. New Conn. Num. Thy./Phys., INI Cambridge, UK (Zoom)	May 2021
96. KITP Modularity in Quantum Systems, (Zoom)	Oct. 2020
97. Central U. of Himachal Pradesh, India, (Zoom)	Sept. 2020
98. <del>100 Years of Mock Theta Functions, Vanderbilt</del>	<del>May 2020*</del>
99. <del>AMS Graduate Conference (Brown), keynote speaker</del>	<del>April 2020*</del>
100. AMS-MAA Joint Meetings, Denver, special session	Jan. 2020
101. Arithmetic, geometry and modular forms, ETH Zurich	Jun. 2019
102. Hawaii Number Theory Conference (HINT)	Mar. 2019
103. AMS Western Sectional, U. Hawaii, special session	Mar. 2019
104. Modularity and 3-manifolds, ICERM (Brown)	Mar. 2019
105. Connecticut Summer School in Number Theory, UConn	May 2018
106. Modular Forms and Quantum Knots, BIRS, Banff	Mar. 2018
107. AMS-MAA Joint Meetings, San Diego special session	Jan. 2018
108. AMS Eastern Sectional, Hunter College, closing speaker	May 2017
109. Connecticut Summer School in Number Theory, UConn	Aug. 2016
110. Gainesville Number Theory Conference, UFlorida	Mar. 2016
111. Illinois Number Theory Conference, UIUC	Aug. 2015
112. Assoc. Women in Math. Research Symposium, UMaryland	Apr. 2015
113. AMS-MAA Joint Meetings, San Antonio, special session	Jan. 2015
114. Southern California Number Theory Day, UC-Irvine	Oct. 2014
115. AMS Eastern Sectional, Temple University, special session	Oct. 2013
116. Ramanujan 125, University of Florida	Nov. 2012
117. University of Illinois Number Theory Conference	Oct. 2012
118. Building Bridges: EU-US Conf., Aachen Uni., Germany	Aug. 2012
119. Krupp Symposium, University of Cologne, Germany	Feb. 2012
120. AMS-MAA Joint Meetings, Boston, special session	Jan. 2012
121. Quebec-Maine Number Theory Conference	Oct. 2011
122. CUNY Conference on Symmetric Groups	Sept. 2011
123. AMS Eastern Spring Sectional, Holy Cross, special session	Apr. 2011
124. ICTP Conference on Mock Modular Forms, Trieste, Italy	Mar. 2011
125. AMS-MAA Joint Meetings, New Orleans, special session	Jan. 2011
126. AMS-CMS Joint Meeting, Pucon, Chile	Dec. 2010
127. University of Hawaii Workshop on Automorphic Forms	Mar. 2010
128. KMS-AMS Winter Meeting, Seoul, Korea	Dec. 2009
129. Mock $\vartheta$ -functions and Applications, MPIM Bonn, Germany	May 2009

130.	<b>1047th Meeting of the AMS, UIUC</b>	Mar. 2009
131.	<b>University of Florida Conference on Quadratic Forms</b>	Mar. 2009
132.	<b>University of Hawaii Workshop on Automorphic Forms</b>	May 2008
133.	<b>University of Florida Number Theory Conference</b>	Mar. 2008
134.	<b>AMS-MAA Joint Meetings, San Diego, special session</b>	Jan. 2008
135.	<b>SASTRA-Ramanujan Conference, Kumbakonam, India</b>	Dec. 2007
136.	<b>The Fields Institute Workshop</b>	Nov. 2007
137.	<b>Heini Halberstam's 80th Birthday Conference, UIUC</b>	May 2007
138.	<b>21<sup>st</sup> Automorphic Forms Workshop, UC-Santa Barbara</b>	Mar. 2007
139.	<b>Jahrestagung der DMV, Uni. Bonn, Germany</b>	Sept. 2006
140.	<b>20<sup>th</sup> Automorphic Forms Workshop, UC-Boulder</b>	Mar. 2006
141.	<b>19<sup>th</sup> Automorphic Forms Workshop, U. North Texas</b>	Mar. 2005
142.	<b>18<sup>th</sup> Automorphic Forms Workshop, UC-Santa Barbara</b>	Mar. 2004
143.	<b>Summer School in Analytic Num. Theory, Catalina, CA</b>	Aug. 2003
144.	<b>AMS-MAA Joint Meetings, New Orleans, undergrad. prize</b>	Jan. 2001
145.	<b>MAA Regional Meeting, St. Paul's School, NH</b>	Jun. 2000

OTHER  
CONFERENCES  
AND MEETINGS

1.	<b>Ramanujan and Euler (Zoom)</b>	July 2022
2.	<b>MAA Mathfest (virtual program)</b>	August 2021
3.	<b>REU Mini-Symposium at UConn (Zoom)</b>	July 2021
4.	<b>QTMC 2021, Fields Institute (virtual)</b>	June 2021
5.	<b>AMS-MAA Joint Meetings (virtual program)</b>	January 2021
6.	<b>REU Mini-Symposium at UConn (Zoom)</b>	Jul. 2020
7.	<del><b>Math. Forschungsinstitut Oberwolfach (MFO)</b></del>	<del>Aug/Sep 2020*</del>
8.	<del><b>MAA Mathfest, Philadelphia</b></del>	<del>July 2020*</del>
9.	<b>Simons Foundation, MPS Annual Meeting, NYC</b>	Oct. 2018
10.	<b>AMS-MAA Joint Meetings, Atlanta</b>	Jan. 2017
11.	<b>MAA Mathfest, Washington D.C.</b>	Aug. 2015
12.	<b>AIM SQuaREs Workshop</b>	Jul. 2015
13.	<b>REU Mini-Symposium at UConn</b>	Jul. 2015
14.	<b>University of Cologne, research visits</b> 5/2011, 11/2011, 5/2012, 6/2015	
15.	<b>Automorphic Forms Conf., CIRM Luminy, France</b>	May 2015
16.	<b>MAA Mathfest, Portland, OR</b>	Aug. 2014
17.	<b>REU Mini-Symposium at Yale</b>	Jul. 2014
18.	<b>AMS-MAA Joint Meetings, Baltimore</b>	Jan. 2014
19.	<b>Simons Center Workshop: Mock/Moonshine/String</b>	Aug. 2013
20.	<b>Mount Holyoke College, New Directions for REUs</b>	Jun. 2013
21.	<b>Hypergeometric Series, Institut Henri Poincaré, Paris</b>	May 2012
22.	<b>AIM Workshop on Cohen-Lenstra Heuristics</b>	Jun. 2011
23.	<b>University College Dublin, research visit</b>	May 2011
24.	<b>Emory University Conference on Partitions</b>	Jan. 2011
25.	<b>AIM Workshop on Mock Modular Forms</b>	Mar. 2010
26.	<b>AMS-MAA Joint National Meetings, San Francisco</b>	Jan. 2010
27.	<b>Columbia U., D. Goldfeld's 60th Bday Conference</b>	May 2007
28.	<b>Oxford Club NYC: Wiles/Du Sautoy (guest of F.H. Schott)</b>	Apr. 2007
29.	<b>Conf. on Modular/Diophantine, MPIM Bonn, Germany</b>	Feb. 2007
30.	<b>Universiteit Leiden, Netherlands, Intercity Num. Th.</b>	Sept. 2006
31.	<b>Columbia University, Galois Repns./L-fns./Arithmetic</b>	Jun. 2006
32.	<b>Princeton/IAS Zeta Functions Women's Program</b>	May 2006
33.	<b>AMS-MAA Joint National Meetings, San Antonio</b>	Jan. 2006
34.	<b>Southern California Number Theory Day, UC-Irvine</b>	Oct. 2005
35.	<b>Gauss-Dirichlet Conference, Göttingen, Germany</b>	Jun. 2005
36.	<b>Southern California Number Theory Day, UCSD</b>	May 2005
37.	<b>University of Florida, Additive Number Theory</b>	Nov. 2004

*\*Event or travel canceled or postponed due to Covid-19.*



- 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 · Thomas Meyer (Amherst, '23), *in progress*  
 · Justin Warring (Amherst, '21E), *On “Strange” Identities and Quantum Modular Forms:  $q$ -hypergeometric Identities and Modular Properties of a Peculiar Function due to Kontsevich*.  
 · William (Jack) Wesley (Amherst, '18), *Combinatorial Proofs of Ramanujan’s Congruences*. Co-recipient, Breusch Prize in Mathematics.  
 · Yen Nhi Truong Vu (Amherst, '17), *On the Modular Transformations and Asymptotic Behaviors of Mock Modular Forms*. Recipient, Breusch Prize in Mathematics.  
 · Edward Kim (Amherst, '15), *An Application of the Circle Method in Analytic Number Theory to the Partition Function*. Co-recipient, Breusch Prize in Mathematics.
- UNDERGRAD. RESEARCH ADVISED · Summer 2021 (Amherst): A. Dietrich '22, K. Ng '23, C. Stewart '22, S. Xu '23, *Overpartition ranks and quantum modular forms*, Research in Number Theory 8:45 (2022). 16pp.  
 · Summer 2020 (Amherst): E. Pratt '22, N. Solomon '22, A. Tawfeek '21E, *Quantum Jacobi forms and sums of tails identities*, Research in Number Theory 8:8 (2022). 24pp.  
 · Summer 2018 (Amherst): G. Carroll '20, J. Corbett '19, A. Folsom, and E. Thieu '19, *Universal mock theta functions as quantum Jacobi forms*, Research in the Mathematical Sciences, 6:6 (2019). 15pp.  
 · 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*, Journal of the Australian Math. Society 109 (2020), 157-175.  
 · 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 5, Research Project Advisor, BIRS Banff 2020 – present  
 · Women in Numbers 4, Research Project Advisor, BIRS Banff 2017 – 2019  
 · 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-MAA Joint Meetings, AMS special session, Denver Jan. 2020  
 · AMS Spring Central/Western Joint Sectional Meeting, U. Hawaii March 2019  
 · AMS-MAA Joint Meetings, 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 Joint Meetings, 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, S20
- Math 225: Fractal Geometry F14, F16, F19, S22, S23
- Math 281: Combinatorics\*\* F17, F21
- Math 260: Differential Equations S22, S23
- Math 310: Introduction to the Theory of Partitions\*\* F16, S21
- Math 345: Functions of a Complex Variable F21
- Math 350: Groups, Rings and Fields (Abstract Algebra) S15
- Math 460: Analytic Number Theory\*\* S18, F20

**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**

*College service*

- Department Chair, Mathematics & Statistics 2019–2021
- Faculty Committee on Adjudication 2021–present
- 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

*Department service*

- Department Chair, Mathematics & Statistics 2019–2021
- Department Budget Subcommittee 2019–present
- Mathematics Colloquium Chair 2023–present
- Math/Stat Table for Faculty-Students-Staff, Organizer 2021–22
- Math Major Info. Sessions Organizer 2021–22
- Student Summer Research Showcase Organizer 2021–22
- Mathematics Comprehensive Exam Co-Organizer/Advisor 2016–18
- Writer/Grader, Mathematics Comprehensive Exam 2014–present
- Honors Thesis Advisor (5 students) 2014–present
- Mathematics Major Advisor (~25 students/semester) 2014–present
- Chair, CT Valley Mathematics Colloquium Fall 2016
- Secretary, typing of weekly department meeting minutes 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 OR STUDENT EVENTS AND PANELS

- **JMM-Spectra LGBTQ Math Workshop, Seattle**, panelist Apr. 2022
- **Queer Resource Ctr.**, Amherst Coll., faculty-staff panelist Apr. 2022
- **Lunch in the Time of Covid**, panelist Apr. 2021
- **AMS Book Authors Panel**, panelist, JMM 2021 Jan. 2021
- **Dartmouth College Math Camp**, guest mathematician, July 2020
- **WIN4 and WIN5 Grants and Funding Panel**, panelist, 2017 & 2020
- **Western New England U.**, PME undergrad induction speaker, April 2020\*
- **AWM/Spectra, JMM Denver**, queer families in academia panelist Jan. 2020
- **College of the Holy Cross**, PME undergrad. induction speaker 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

*\*Event or travel canceled or postponed due to Covid-19.*

## 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.