Amanda L. Folsom

CONTACT INFORMATION

Amherst College
Department of Mathematics and Statistics
Amherst, MA 01002

https://afolsom.people.amherst.edu
afolsom@amherst.edu

RESEARCH INTERESTS

Analytic and Algebraic Number Theory, Harmonic Maass Forms, Modular Forms, Jacobi Forms, Mock and Quantum Modular Forms, Combinatorics, q-series, Lie Theory applications

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** Bicentennial Professor of Mathematics 2022 – present
  Full Professor of Mathematics 2019 – present
  Department Chair or Associate Chair 2023 – present & 2019 – 2021
  Associate Professor 2014 – 2019
- **Yale University** Associate Professor 2014
  Assistant Professor 2010 – 2014
- **University of Wisconsin-Madison** NSF Postdoctoral Fellow 2007 – 2010
- **Max-Planck-Institut für Mathematik, Bonn** Postdoc 2006 – 2007

VISITING POSITIONS
(most while on sabbatical leaves)

- **Institute for Advanced Study, Princeton** Spring 2019, Spring 2016
  von Neumann Fellow and Member
- **Max-Planck-Institut, Bonn** Summer 2022, Fall 2015, Spring 2013
  Visiting Scientist
- **Emory University** Fall 2012

GRANTS AND AWARDS

- **National Science Foundation Grant (P.I.)** 2022 – 2025
  DMS-2200728, $273,250
- **AMS Mary P. Dolciani Prize for Excellence in Research** 2021
- **National Science Foundation Grant (P.I.)** 2019 – 2022
  DMS-1901791, $252,174
- **A.M. (hon.), Amherst College** 2019
- **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
· **Salutatorian, BFHS** 1997

EDITORIAL BOARDS

· **Proceedings of the Amer. Math. Soc.** (AMS)
- Managing Editor 2026 – present
- 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 Institute of Mathematics**
- AIM Scientific Research Board Member 2024 – present

· **American Mathematical Society**
- AMS Committee on Meetings and Conferences 2024 – present

· **American Mathematical Society**
- AMS Levi L. Conant Prize Committee (Chair, 2024 – 2025) 2023 – present

· **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

· **American Mathematical Society - Simons Foundation**
- AMS-Simons Research Enhancement Grants for PUI Faculty Committee 2023 – 2025

PUBLICATIONS

70$^+$ total publications. Publications available at:
https://afolsom.people.amherst.edu/Publications.html

I. BOOK

1. K. Bringmann, A. Folsom, K. Ono, and L. Rolen, *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, J. Joire, T. Steciuk, A. van Lidth, *k-almost consecutive partitions and quantum Jacobi forms,* submitted 2025. 36 pp.
3. A. Folsom, *Rogers-Ramanujan moment bias,* submitted 2025. 12 pp.
4. W. Bridges, W. Craig, A. Folsom, and L. Rolen, *Zero attractors of hook polynomials and related questions,* submitted 2024. 16 pp.
5. A. Folsom and D. Metacarpa, *Quantum q-series and mock theta functions,* **Research in the Mathematical Sciences** 11 no. 41 (2024), 21pp.
6. A. Folsom, J. Males, L. Rolen, and M. Storzer, *Oscillating asymptotics and conjectures of Andrews,* submitted 2024. 31 pp.
7. C. Ballantine, H. Burson, W. Craig, A. Folsom, and B. Wen, *Hook length biases and general linear partition inequalities*, **Research in the Mathematical Sciences** 10 no. 41 (2023). 36 pp.

8. A. Folsom, *Periodic partial theta functions and q-hypergeometric knot multi sums as quantum Jacobi forms,* **Journal of Mathematical Analysis and Applications** 530 iss. 2 (2024). 26pp.
9. A. Folsom, J. Males, and L. Rolen, *Equidistribution and partition polynomials,* **Ramanujan Journal,** accepted for publication 2023. 15pp.
10. C. Ballantine, H. Burson, W. Craig, A. Folsom, and B. Wen, *On the Number of Hooks of Fixed Length in Odd versus Distinct Partitions,* **Seminaire Lotharingien de Combinatoire** 89B (2023). 12pp.
11. C. Ballantine and A. Folsom, *On the number of parts in all partitions enumerated by the Rogers-Ramanujan identities,* **Fields Institute Symposium on Number Theory,** Proceedings Subbarao Centenary, accepted for publication 2025. 16pp.
12. C. Ballantine, H. Burson, A. Folsom, C-Y Hsu, I. Negrini, and B. Wen, *Mock theta functions and related combinatorics,* **Springer Research Directions in Number Theory: Women in Numbers V.** Association for Women in Mathematics Series, accepted for publication 2023. 28pp.
13. 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.
14. 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.
15. 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.
16. 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.
17. A. Folsom, *Twisted Eisenstein series, cotangent-zeta sums, and quantum modular forms,* **Transactions of the London Mathematical Society,** 7(1) (2020), pp. 33–48.
18. 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.
19. 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.
20. A. Folsom, *Quantum Jacobi forms in number theory, topology, and mathematical physics,* **Research in the Mathematical Sciences**, 6:25 (2019). 34pp.
21. 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.
22. 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.
23. 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.
24. 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.

25. 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.
26. K. Bringmann and A. Folsom, *Quantum Jacobi forms and finite evaluations of unimodal rank generating functions,* **Archiv der Mathematik** 107 (2016), pp. 367–378.
27. 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.
28. A. Folsom, *Mock and mixed mock modular forms in the lower half-plane,* **Archiv der Mathematik** 107 (2016), pp. 487–498.
29. A. Folsom and P. Jenkins, *Zeros of modular forms of half integral weight,* **Research in Number Theory** 2:23 (2016), 25pp.
30. 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.
31. K. Bringmann, A. Folsom, and K. Mahlburg, *Quasimodular forms and $sl(m|m)^\wedge$ characters,* **Ramanujan Journal** 36 (2015), pp. 103–116.
32. 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.
33. 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.
34. 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.
35. 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.
36. A. Folsom, *Mock modular forms and d-distinct partitions,* **Advances in Mathematics** 254 (2014), pp. 682–705.
37. 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).
38. K. Bringmann and A. Folsom, *On a conjecture of B. Berndt and B. Kim,* **Ramanujan Journal** 32 (2013), pp. 1–4.
39. 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.
40. A. Folsom and S. Kimport, *Mock modular forms and singular combinatorial series,* **Acta Arithmetica** 159.3 (2013), pp. 257–297.
41. A. Folsom, K. Ono, and R.C. Rhoades, *Mock theta functions and quantum modular forms,* **Forum of Mathematics Pi** 1 (2013), pp. 1–27.
42. 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.
43. 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.
44. A. Folsom, Z. Kent, and K. Ono, *ℓ-adic properties of the partition function,* **Advances in Mathematics** 229 (2012), pp. 1586–1609.

45. A. Folsom, *Kac-Wakimoto characters and universal mock theta functions,* **Transactions of the American Mathematical Society** 363 no. 1 (2011), pp. 439–455.
46. A. Folsom and R. Masri, *The asymptotic distribution of traces of Maass-Poincaré series,* **Advances in Mathematics** 226 (2011), pp. 3724–3759.
47. A. Folsom, *Modular units and the q-difference equations of Selberg,* **Mathematical Research Letters** (17) no. 2 (2010), pp. 283–299.
48. A. Folsom, *Modularity and the distinct rank function,* **Ramanujan Journal** 23 (2010), pp. 183–193.
49. A. Folsom and R. Masri, *Equidistribution of Heegner points and the partition function,* **Mathematische Annalen** 348 no. 2 (2010), pp. 289–317.
50. K. Bringmann, A. Folsom, and K. Ono, *q-series and weight 3/2 Maass forms,* **Compositio Mathematica** 145 (2009), pp. 541–552.
51. A. Folsom, *A characterization of the modular units,* **International Journal of Number Theory** (5) no. 2 (2009), pp. 303–310.
52. A. Folsom, *A short proof of the mock theta conjectures using Maass forms,* **Proceedings of the American Mathematical Society** 136 (2008), pp. 4143–4149.
53. 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.
54. 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.
55. 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.
56. A. Folsom, *Modular forms and Eisenstein's continued fractions,* **Journal of Number Theory** 117 (2006), pp. 279–291.
57. 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

58. A. Folsom, *Mock Theta Functions*, and *Harmonic Maass forms and Mock Modular Forms*, Lecture notes (with exercises), unpublished. Building Bridges: 6th EU/US Summer School & Workshop on Automorphic Forms and Related Topics (BB6), CIRM Marseille, September 2-13, 2024.
59. R. Buckmire, A. Folsom, C. Goff, A. Hoover, J. Nakao, and K.A. Sather-Wagstaff, *On Best Practices for the Recruitment, Retention, and Flourishing of LGBTQ+ Mathematicians,* **Notices of the American Mathematical Society**, vol. 70, no. 6, June/July 2023, 979-985.
60. A. Folsom and A. Kontorovich, *Advice for the campus interview,* **Notices of the American Mathematical Society**, vol. 66, no. 10, November 2019, 1651-1655.
61. 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.*
62. A. Folsom and S. Payne, *Research with undergraduates,* **Notices of the American Mathematical Society**, vol. 66 no. 2, February 2019, 199-200.
63. A. Folsom, *Symmetry, almost,* **Notices of the American Mathematical Society**, vol. 66 no. 1, January 2019, 87-88.

64. A. Folsom, *Chapter 187: Harmonic Maass forms and mock modular forms,* accepted in Srinivasa Ramanujan: His Life, Legacy, and Mathematical Influence, 2025. 8 pp.
65. A. Folsom, *Chapter 186: False theta functions and modular forms,* accepted in Srinivasa Ramanujan: His Life, Legacy, and Mathematical Influence, 2025. 7 pp.
66. A. Folsom, *Chapter 192: Quantum modular forms,* accepted in Srinivasa Ramanujan: His Life, Legacy, and Mathematical Influence, 2025. 5 pp.
67. A. Folsom, *Chapter 183: A Century of Answering the Question: What Is a Mock Theta Function,* accepted in Srinivasa Ramanujan: His Life, Legacy, and Mathematical Influence, 2025. 1 pp.
68. H-C Chan and A. Folsom, *Chapter 172: Evaluations of the Rogers-Ramanujan Continued Fraction,* accepted in Srinivasa Ramanujan: His Life, Legacy, and Mathematical Influence, 2025. 7 pp.
69. A. Folsom, *Book Review: "My Search For Ramanujan" by K. Ono and A. Aczel,* **Bhavana** vol. 1 iss. 2., April 2017. 5 pp.
70. A. Folsom, *Perspectives on mock modular forms,* **Journal of Number Theory** 176 (2017), pp. 500-540.
71. 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.
72. A. Folsom, *WHAT IS... a mock modular form?,* **Notices of the American Mathematical Society** 57 iss. 11 (2010), pp. 1441–1443.
73. 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

74. *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. **EU-US Automorphic Forms (BB6), CIRM Marseille** Sept. 2024
   Summer School Lecture Series, Harmonic Maass Forms
2. **The Legacy of Ramanujan, Penn State,** Plenary Speaker June 2024
3. **Dresden Lectures, Swarthmore College,** Invited Lectures Oct. 2022
4. **Oliver Lecturer & Class of 1960 Speaker, Williams College** Sept. 2022
5. **MAA Invited Address,** Joint National Meetings, Baltimore Jan. 2019
6. **The Royal Society, London,** Ramanujan Centenary Meeting Oct. 2018
7. **The Legacy of Ramanujan, U. Illinois,** Plenary Speaker June 2019
8. **TORAS University of Oklahoma,** Keynote Speaker Mar. 2015
9. **Yale Science and Engineering Forum,** Plenary Speaker Apr. 2012
10. **PANTS VIII, U. South Carolina,** Plenary Speaker Dec. 2008

ADDITIONAL INVITED UNIVERSITY RESEARCH TALKS

11. **Vassar College,** Colloquium TBD
12. **Oregon State University,** Seminar Nov. 2024
13. **Wesleyan University,** Colloquium March 2024
14. **Northeastern University,** Graduate Student Seminar Oct. 2022
15. **University of Virginia,** REU Colloquium July 2022
16. **TU-Darmstadt, Germany,** Seminar (Zoom) Apr. 2021
17. **City College of New York,** Colloquium (Zoom) Apr. 2021
18. **Vanderbilt University,** Seminar (Zoom) Dec. 2020
19. **UCLA,** Seminar (Zoom) Dec. 2020
20. **University of Bristol, UK,** Seminar (Zoom) Dec. 2020

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

79. **McMaster University, Canada**, Arith. Geometry Seminar Nov. 2007
80. **Stanford University,** Seminar Nov. 2007
81. **University of South Carolina**, Seminar Nov. 2007
82. **University of Illinois, Urbana-Champaign**, Seminar Oct. 2007
83. **University of Wisconsin-Madison**, Seminar Oct. 2007
84. **Amherst College**, Five College Number Theory Seminar May 2007
85. **University of Wisconsin-Madison**, Seminar May 2007
86. **ETH Zurich, Switzerland**, Seminar Dec. 2006
87. **Max-Planck-Institut, Bonn, Germany**, Seminar Sept. 2006
88. **Princeton University**, Seminar May 2006
89. **University of California, Los Angeles,** Seminar Feb. 2006
90. **Boston University**, Algebra Seminar Nov. 2005
91. **University of Wisconsin-Madison**, Seminar Feb. 2005
92. **Harvard University**, Graduate Student Seminar Jul. 2004

INVITED CONFERENCE AND WORKSHOP TALKS

93. **SERMON 2025, Savannah**, plenary speaker Apr. 2025
94. **AMS Western Sectional, Cal Poly U.,** special session May 2025
95. **AMS Eastern Sectional, Hartford,** special session Apr. 2025
96. **Joint Math. Meetings, Seattle,** special session Jan. 2025
97. **Int'l Conference on Modular Forms & q-series,** U. Cologne Mar. 2024
98. **Clifford Lectures Sympoisum,** Tulane U. Feb. 2024
99. **Assoc. for Women in Math. Research Symposium,** Atlanta Oct. 2023
100. **New Conn. Between Physics & Number Thy.,** Pollica, Italy Jun. 2023
101. **Joint Math. Meetings, Boston,** special sessions (2 talks) Jan. 2023
102. **Spec($\overline{Q}$),** Fields Institute, Toronto July 2022
103. **100 years of mock theta functions,** Vanderbilt, May 2022
104. **AMS Western Sectional, U. Denver,** special session May 2022
105. **Joint Math. Meetings, Seattle,** special sessions (2 talks) April 2022
106. **LGBTQ+ Math Day,** Fields Institute, keynote speaker Nov. 2021
107. **Subbarao Centenary Symposium,** IISER, India (virtual) July 2021
108. **New Conn. Num. Thy./Phys.,** INI Cambridge, UK (Zoom) May 2021
109. **KITP Modularity in Quantum Systems,** (Zoom) Oct. 2020
110. **Central U. of Himachal Pradesh, India,** (Zoom) Sept. 2020
111. ~~**100 Years of Mock Theta Functions, Vanderbilt**~~ ~~May 2020*~~
112. ~~**AMS Graduate Conference (Brown),** keynote speaker~~ ~~April 2020*~~
113. **AMS-MAA Joint Meetings, Denver,** special session Jan. 2020
114. **Arithmetic, geometry and modular forms,** ETH Zurich Jun. 2019
115. **Hawaii Number Theory Conference (HINT)** Mar. 2019
116. **AMS Western Sectional, U. Hawaii,** special session Mar. 2019
117. **Modularity and 3-manifolds, ICERM (Brown)** Mar. 2019
118. **Connecticut Summer School in Number Theory,** UConn May 2018
119. **Modular Forms and Quantum Knots, BIRS, Banff** Mar. 2018
120. **AMS-MAA Joint Meetings, San Diego** special session Jan. 2018
121. **AMS Eastern Sectional, Hunter College,** closing speaker May 2017
122. **Connecticut Summer School in Number Theory,** UConn Aug. 2016
123. **Gainesville Number Theory Conference,** UFlorida Mar. 2016
124. **Illinois Number Theory Conference,** UIUC Aug. 2015
125. **Assoc. Women in Math. Research Symposium,** UMaryland Apr. 2015
126. **AMS-MAA Joint Meetings, San Antonio,** special session Jan. 2015
127. **Southern California Number Theory Day,** UC-Irvine Oct. 2014
128. **AMS Eastern Sectional, Temple University,** special session Oct. 2013
129. **Ramanujan 125,** University of Florida Nov. 2012
130. **University of Illinois Number Theory Conference** Oct. 2012
131. **Building Bridges: EU-US Conf.,** Aachen Uni., Germany Aug. 2012
132. **Krupp Symposium,** University of Cologne, Germany Feb. 2012
133. **AMS-MAA Joint Meetings, Boston,** special session Jan. 2012
134. **Quebec-Maine Number Theory Conference** Oct. 2011
135. **CUNY Conference on Symmetric Groups** Sept. 2011

136. **AMS Eastern Spring Sectional, Holy Cross,** special session Apr. 2011
137. **ICTP Conference on Mock Modular Forms,** Trieste, Italy Mar. 2011
138. **AMS-MAA Joint Meetings, New Orleans,** special session Jan. 2011
139. **AMS-CMS Joint Meeting**, Pucon, Chile Dec. 2010
140. **University of Hawaii Workshop on Automorphic Forms** Mar. 2010
141. **KMS-AMS Winter Meeting,** Seoul, Korea Dec. 2009
142. **Mock ϑ-functions and Applications,** MPIM Bonn, Germany May 2009
143. **1047th Meeting of the AMS,** UIUC Mar. 2009
144. **University of Florida Conference on Quadratic Forms** Mar. 2009
145. **University of Hawaii Workshop on Automorphic Forms** May 2008
146. **University of Florida Number Theory Conference** Mar. 2008
147. **AMS-MAA Joint Meetings, San Diego,** special session Jan. 2008
148. **SASTRA-Ramanujan Conference,** Kumbakonam, India Dec. 2007
149. **The Fields Institute Workshop** Nov. 2007
150. **Heini Halberstam's 80th Birthday Conference,** UIUC May 2007
151. **21$^{\text{st}}$ Automorphic Forms Workshop,** UC-Santa Barbara Mar. 2007
152. **Jahrestagung der DMV,** Uni. Bonn, Germany Sept. 2006
153. **20$^{\text{th}}$ Automorphic Forms Workshop,** UC-Boulder Mar. 2006
154. **19$^{\text{th}}$ Automorphic Forms Workshop,** U. North Texas Mar. 2005
155. **18$^{\text{th}}$ Automorphic Forms Workshop,** UC-Santa Barbara Mar. 2004
156. **Summer School in Analytic Num. Theory,** Catalina, CA Aug. 2003
157. **AMS-MAA Joint Meetings, New Orleans,** undergrad. prize Jan. 2001
158. **MAA Regional Meeting,** St. Paul's School, NH Jun. 2000

OTHER CONFERENCES AND MEETINGS

1. **Joint Mathematics Meetings, San Francisco, CA** January 2024
2. **MAA Mathfest, Tampa, FL** August 2023
3. **Ramanujan and Euler** (Zoom) July 2022
4. **MAA Mathfest** (virtual program) August 2021
5. **REU Mini-Symposium at UConn** (Zoom) July 2021
6. **QTMC 2021,** Fields Institute (virtual) June 2021
7. **AMS-MAA Joint Meetings** (virtual program) January 2021
8. **REU Mini-Symposium at UConn** (Zoom) Jul. 2020
9. ~~**Math. Forschungsinstitut Oberwolfach (MFO)** Aug/Sep 2020*~~
10. ~~**MAA Mathfest, Philadelphia** July 2020*~~
11. **Simons Foundation, MPS Annual Meeting, NYC** Oct. 2018
12. **AMS-MAA Joint Meetings, Atlanta** Jan. 2017
13. **MAA Mathfest, Washington D.C.** Aug. 2015
14. **AIM SQuaREs Workshop** Jul. 2015
15. **REU Mini-Symposium at UConn** Jul. 2015
16. **University of Cologne,** research visits 5/2011, 11/2011, 5/2012, 6/2015
17. **Automorphic Forms Conf., CIRM Luminy, France** May 2015
18. **MAA Mathfest, Portland, OR** Aug. 2014
19. **REU Mini-Symposium at Yale** Jul. 2014
20. **AMS-MAA Joint Meetings, Baltimore** Jan. 2014
21. **Simons Center Workshop: Mock/Moonshine/String** Aug. 2013
22. **Mount Holyoke College, New Directions for REUs** Jun. 2013
23. **Hypergeometric Series, Institut Henri Poincaré, Paris** May 2012
24. **AIM Workshop on Cohen-Lenstra Heuristics** Jun. 2011
25. **University College Dublin,** research visit May 2011
26. **Emory University Conference on Partitions** Jan. 2011
27. **AIM Workshop on Mock Modular Forms** Mar. 2010
28. **AMS-MAA Joint National Meetings, San Francisco** Jan. 2010
29. **Columbia U., D. Goldfeld's 60th Bday Conference** May 2007

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

30. **Oxford Club NYC: Wiles/Du Sautoy** (guest of F.H. Schott) Apr. 2007
31. **Conf. on Modular/Diophantine, MPIM Bonn, Germany** Feb. 2007
32. **Universiteit Leiden, Netherlands, Intercity Num. Th.** Sept. 2006
33. **Columbia University, Galois Repns./L-fns./Arithmetic** Jun. 2006
34. **Princeton/IAS Zeta Functions Women's Program** May 2006
35. **AMS-MAA Joint National Meetings, San Antonio** Jan. 2006
36. **Southern California Number Theory Day, UC-Irvine** Oct. 2005
37. **Gauss-Dirichlet Conference, Göttingen, Germany** Jun. 2005
38. **Southern California Number Theory Day, UCSD** May 2005
39. **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

- Kathy Xing (Amherst, '24), *Traces of Singular Moduli as the Coefficients of a Meromorphic Modular Form.* Co-recipient, Breusch Prize in Mathematics.
- Thomas Meyer (Amherst, '23), *Resolution of the Alder-Andrews Conjecture.*
- 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 Math ematics.

UNDERGRAD. RESEARCH ADVISED

- Summer 2024 (Amherst): J. Joire '25, T. Steciuk '25, A. van Lidth '25, *k-almost consecutive partitions and quantum Jacobi forms,* submitted for publication 2025. 36pp.
- Summer 2023 (Amherst): D. Metacarpa '24, W. Tseng '24, *Quantum q-series and mock theta functions,* Research in the Mathematical Sciences 11 no. 41 (2024). 21 pp.
- 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 total student papers submitted in the program.

OTHER ADVISING

- Women in Numbers 5, Research Project Advisor, BIRS Banff 2020 – 2022
- 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

- Modularity and Quantum Topology, American Institute of Mathematics Oct. 2026
- AMS-MAA Joint Meetings, AMS special session, San Francisco Jan. 2024
- QTMC, Programming Committee, Queen Mary U. London June 2023
- 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, S24, F25
- Math 230: Introduction to Integer Partitions** S26
- 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 390: Topics in Analytic Number Theory** S22
- Math 460: Analytic Number Theory** S18, F20, F23
- Math 498: Senior Honors Thesis F14, F16, F17, F19, F23, F25
- Math 499 Senior Honors Thesis S15, S17, S18, F20 (as 498 II), S23, S24, S26

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

***introduced to the College/University curriculum*

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

Other Teaching (2013–present)

- Lecturer/Instructor, Minicourse (for grad students & postdocs) Sept. 2024
  EU-US Automorphic Forms (BB6), CIRM Marseille
  Harmonic Maass Forms
- Course and Research Assistant (for grad students & postdocs) March 2013
  Arizona Winter School, *Weak Maass Forms*

DEPARTMENT AND COLLEGE SERVICE

Amherst College

College service

- Department Chair or Associate Chair 2023–present & 2019–21
- Faculty Lecture Committee 2024–present
- Amherst College Faculty Mentoring Program, Mentor 2023–present
- Faculty Committee on Adjudication 2021–2022
- New Faculty Orientation Panelist 2023–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 (Mathematics & Statistics)

- Department Chair or Associate Chair 2023–present & 2019–21
- Faculty Search Committees/Chair (TT, VAP, LEC) annually, 2015–present
- Department Budget Committee (Chair) 2019–present
- Mathematics QFellow Hiring Committee (Co-chair) 2024–present
- Mathematics Colloquium Chair 2022–2023
- Mathematics Petitions Chair 2023–2024
- Math/Stat Table for Faculty-Students-Staff, Organizer 2021-22
- Math Major Info. Sessions Organizer 2021-22 and 2023-24
- Student Summer Research Showcase Organizer 2021-22 and 2023-24
- Mathematics Comprehensive Exam Co-Organizer/Advisor 2016–18
- Writer/Grader, Mathematics Comprehensive Exam 2014–present
- Honors Thesis Advisor (6 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
- Other misc. dept. service, e.g. formal mentoring of junior faculty, organizing thesis talks/committees, meeting prospective majors, etc. 2015–present

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 Panelist* multiple, 2010–present
· **National Security Agency,** Grant Panelist* multiple

**dates/details redacted for confidentiality; please ask for further info. if needed.*

DEPT. EXTERNAL OR TENURE / PROMOTION REVIEWS

I have served* as a member of (non-Amherst College) Mathematics, and Mathematics & Statistics, departmental external review committees. I have also served as an external reviewer in the reappointment, tenure and promotion cases of multiple (non-Amherst College) mathematicians.

**dates/details redacted for confidentiality.*

PUBLIC OR STUDENT EVENTS AND PANELS

· **JMM-AMS Editorial Board Panel** panelist Jan. 2023
· **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 academica 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 posponed 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.

— last updated February 14, 2025 —