

# 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 Full Professor 2019 – present Department Chair 2019 – 2021 Associate Professor 2014 – 2019</li><li>· <b>Yale University</b> Associate Professor 2014 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 Committee on Meetings and Conferences 2024 – present
- **American Mathematical Society - Simons Foundation**
  - AMS-Simons Research Enhancement Grants for PUI Faculty Committee 2023 – present
- **American Mathematical Society**
  - AMS Levi L. Conant Prize Committee 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

PUBLICATIONS

**68+** 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. A. Folsom, J. Males, L. Rolén, and M. Storzer, *Oscillating asymptotics for a Nahm-type sum and conjectures of Andrews*, submitted 2023. 31 pp.
3. C. Ballantine, H. Burson, W. Craig, A. Folsom, and B. Wen, *Hook length biases and general linear partition inequalities*, 2023. 36 pp.
4. A. Folsom, *Periodic partial theta functions and  $q$ -hypergeometric knot multi sums as quantum Jacobi forms*, submitted 2023. 27pp.
5. A. Folsom, J. Males, and L. Rolén, *Equidistribution and partition polynomials*, *Ramanujan Journal*, accepted for publication 2023. 15pp.
6. C. Ballantine, H. Burson, W. Craig, A. Folsom, and B. Wen, *On the Number of Hooks of Fixed Length in Odd versus Distinct Partitions*, accepted in the Proceedings of the 35th International Conference on Formal Power Series and Algebraic Combinatorics, July 17-21 2023, University of California, Davis, CA. 12 pp.
7. C. Ballantine and A. Folsom, *On the number of parts in all partitions enumerated by the Rogers-Ramanujan identities*, accepted for publication in the Fields Institute Symposium on Number Theory Proceedings, Subbarao Centenary, 2023. 16pp.

8. C. Ballantine, H. Burson, A. Folsom, C-Y Hsu, I. Negrini, and B. Wen, *Mock theta functions and related combinatorics*, accepted for publication in Springer Research Directions in Number Theory: Women in Numbers V. Association for Women in Mathematics Series, 2023. 28pp.
9. 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.
10. 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.
11. 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.
12. 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.
13. A. Folsom, *Twisted Eisenstein series, cotangent-zeta sums, and quantum modular forms*, **Transactions of the London Mathematical Society**, 7(1) (2020), pp. 33–48.
14. 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.
15. 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.
16. A. Folsom, *Quantum Jacobi forms in number theory, topology, and mathematical physics*, **Research in the Mathematical Sciences**, 6:25 (2019). 34pp.
17. 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.
18. 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.
19. 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.
20. 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.
21. 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.
22. K. Bringmann and A. Folsom, *Quantum Jacobi forms and finite evaluations of unimodal rank generating functions*, **Archiv der Mathematik** 107 (2016), pp. 367–378.
23. 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.
24. A. Folsom, *Mock and mixed mock modular forms in the lower half-plane*, **Archiv der Mathematik** 107 (2016), pp. 487–498.
25. A. Folsom and P. Jenkins, *Zeros of modular forms of half integral weight*, **Research in Number Theory** 2:23 (2016), 25pp.

26. 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.
27. K. Bringmann, A. Folsom, and K. Mahlburg, *Quasimodular forms and  $sl(m|m)^\wedge$  characters*, **Ramanujan Journal** 36 (2015), pp. 103–116.
28. 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.
29. 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.
30. 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.
31. 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.
32. A. Folsom, *Mock modular forms and  $d$ -distinct partitions*, **Advances in Mathematics** 254 (2014), pp. 682–705.
33. 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).
34. K. Bringmann and A. Folsom, *On a conjecture of B. Berndt and B. Kim*, **Ramanujan Journal** 32 (2013), pp. 1–4.
35. 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.
36. A. Folsom and S. Kimport, *Mock modular forms and singular combinatorial series*, **Acta Arithmetica** 159.3 (2013), pp. 257–297.
37. A. Folsom, K. Ono, and R.C. Rhoades, *Mock theta functions and quantum modular forms*, **Forum of Mathematics Pi** 1 (2013), pp. 1–27.
38. 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.
39. 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.
40. A. Folsom, Z. Kent, and K. Ono,  *$\ell$ -adic properties of the partition function*, **Advances in Mathematics** 229 (2012), pp. 1586–1609.
41. A. Folsom, *Kac-Wakimoto characters and universal mock theta functions*, **Transactions of the American Mathematical Society** 363 no. 1 (2011), pp. 439–455.
42. A. Folsom and R. Masri, *The asymptotic distribution of traces of Maass-Poincaré series*, **Advances in Mathematics** 226 (2011), pp. 3724–3759.
43. A. Folsom, *Modular units and the  $q$ -difference equations of Selberg*, **Mathematical Research Letters** (17) no. 2 (2010), pp. 283–299.
44. A. Folsom, *Modularity and the distinct rank function*, **Ramanujan Journal** 23 (2010), pp. 183–193.
45. A. Folsom and R. Masri, *Equidistribution of Heegner points and the partition function*, **Mathematische Annalen** 348 no. 2 (2010), pp. 289–317.
46. K. Bringmann, A. Folsom, and K. Ono,  *$q$ -series and weight  $3/2$  Maass forms*, **Compositio Mathematica** 145 (2009), pp. 541–552.

47. A. Folsom, *A characterization of the modular units*, **International Journal of Number Theory** (5) no. 2 (2009), pp. 303–310.
48. A. Folsom, *A short proof of the mock theta conjectures using Maass forms*, **Proceedings of the American Mathematical Society** 136 (2008), pp. 4143–4149.
49. 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.
50. 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.
51. 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.
52. A. Folsom, *Modular forms and Eisenstein’s continued fractions*, **Journal of Number Theory** 117 (2006), pp. 279–291.
53. 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

54. 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.
55. A. Folsom and A. Kontorovich, *Advice for the campus interview*, **Notices of the American Mathematical Society**, vol. 66, no. 10, November 2019, 1651-1655.
56. 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.*
57. A. Folsom and S. Payne, *Research with undergraduates*, **Notices of the American Mathematical Society**, vol. 66 no. 2, February 2019, 199-200.
58. A. Folsom, *Symmetry, almost*, **Notices of the American Mathematical Society**, vol. 66 no. 1, January 2019, 87-88.
59. A. Folsom, *Harmonic Maass forms and mock modular forms*, submitted. 8 pp.
60. A. Folsom, *False theta functions and modular forms*, submitted. 7 pp.
61. A. Folsom, *Quantum modular forms*, submitted. 5 pp.
62. A. Folsom, *A Century of Answering the Question: What Is a Mock Theta Function*, submitted. 1 pp.
63. H-C Chan and A. Folsom, *Evaluations of the Rogers-Ramanujan Continued Fraction*, submitted. 7 pp.
64. A. Folsom, *Book Review: “My Search For Ramanujan” by K. Ono and A. Aczel*, **Bhavana** vol. 1 iss. 2., April 2017. 5 pp.
65. A. Folsom, *Perspectives on mock modular forms*, **Journal of Number Theory** 176 (2017), pp. 500-540.
66. 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.
67. A. Folsom, *WHAT IS... a mock modular form?*, **Notices of the American Mathematical Society** 57 iss. 11 (2010), pp. 1441–1443.
68. 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

69. *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

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|---|------------|
| 1. <b>The Legacy of Ramanujan, Penn State</b> , Plenary Speaker         | June 2024  |
| 2. <b>Dresden Lectures, Swarthmore College</b> , Invited Lectures       | Oct. 2022  |
| 3. <b>Oliver Lecturer &amp; Class of 1960 Speaker, Williams College</b> | Sept. 2022 |
| 4. <b>MAA Invited Address</b> , Joint National Meetings, Baltimore      | Jan. 2019  |
| 5. <b>The Royal Society, London</b> , Ramanujan Centenary Meeting       | Oct. 2018  |
| 6. <b>The Legacy of Ramanujan, U. Illinois</b> , Plenary Speaker        | June 2019  |
| 7. <b>TORAS University of Oklahoma</b> , Keynote Speaker                | Mar. 2015  |
| 8. <b>Yale Science and Engineering Forum</b> , Plenary Speaker          | Apr. 2012  |
| 9. <b>PANTS VIII, U. South Carolina</b> , Plenary Speaker               | Dec. 2008  |

#### ADDITIONAL INVITED RESEARCH TALKS

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|---|----------------|
| 10. <b>Louisiana State University</b> , Colloquium & Seminar talks  | TBD 2023-24    |
| 11. <b>Northeastern University</b> , Graduate Student Seminar       | Oct. 2022      |
| 12. <b>University of Virginia</b> , REU Colloquium                  | July 2022      |
| 13. <b>TU-Darmstadt, Germany</b> , Seminar (Zoom)                   | Apr. 2021      |
| 14. <b>City College of New York</b> , Colloquium (Zoom)             | Apr. 2021      |
| 15. <b>Vanderbilt University</b> , Seminar (Zoom)                   | Dec. 2020      |
| 16. <b>UCLA</b> , Seminar (Zoom)                                    | Dec. 2020      |
| 17. <b>University of Bristol, UK</b> , Seminar (Zoom)               | Dec. 2020      |
| 18. <b>St. Petersburg State University, Russia</b> , Seminar (Zoom) | Dec. 2020      |
| 19. <b>Fairfield University</b> , Colloquium                        | Nov. 2019      |
| 20. <b>McGill University</b> , Colloquium                           | May 2019       |
| 21. <b>University of Pennsylvania</b> , Seminar                     | April 2019     |
| 22. <b>Bryn Mawr and Haverford Colleges</b> , Colloquium            | Feb. 2019      |
| 23. <b>Institute for Advanced Study, Princeton</b> , Member Seminar | Feb. 2019      |
| 24. <b>Rice University</b> , Colloquium                             | Nov. 2018      |
| 25. <b>Boston University</b> , Seminar                              | May 2017       |
| 26. <b>Brown University</b> , Seminar                               | Feb. 2017      |
| 27. <b>Bucknell University</b> , Distinguished Visitor, Colloquium  | Apr. 2016      |
| 28. <b>Penn. State University</b> , Seminar                         | Apr. 2016      |
| 29. <b>Institute for Advanced Study, Princeton</b> , Member Seminar | Feb. 2016      |
| 30. <b>Heidelberg University, Germany</b> , Colloquium              | Dec. 2015      |
| 31. <b>Max-Planck-Institut, Bonn, Germany</b> , Seminar             | Dec. 2015      |
| 32. <b>TU Darmstadt, Germany</b> , Seminar                          | Dec. 2015      |
| 33. <b>University College, Dublin</b> , Seminar                     | Nov. 2015      |
| 34. <b>SUNY Albany</b> , Colloquium                                 | Sept. 2015     |
| 35. <b>University of Cologne, Germany</b> , Seminar                 | Jun. 2015      |
| 36. <b>Temple University</b> , Colloquium                           | Apr. 2015      |
| 37. <b>University of Massachusetts, Amherst</b> , Geometry Seminar  | Mar. 2015      |
| 38. <b>Tulane University</b> , Colloquium                           | Jan. 2015      |
| 39. <b>Brandeis-Harvard-MIT-Northeastern</b> , Joint Colloquium     | Nov. 2014      |
| 40. <b>Amherst College</b> , Five College Number Theory Seminar     | Sept. 2014     |
| 41. <b>Wesleyan University</b> , Colloquium                         | May 2014       |
| 42. <b>Texas A&amp;M University</b> , Seminar                       | Apr. 2014      |
| 43. <b>Yale University</b> , Junior Colloquium                      | Apr. 2014      |
| 44. <b>Johns Hopkins University</b> , Colloquium                    | Oct./Nov. 2013 |
| 45. <b>Heidelberg University, Germany</b> , Seminar                 | May 2013       |
| 46. <b>Max-Planck-Institut, Bonn, Germany</b> , Oberseminar         | Apr. 2013      |
| 47. <b>Université de Nice, France</b> , Seminar                     | Apr. 2013      |
| 48. <b>University College Dublin, Ireland</b> , Seminar             | Apr. 2013      |

49. <b>University of Cologne, Germany</b> , Seminar	Apr. 2013
50. <b>Brigham Young University</b> , Colloquium	Jan. 2013
51. <b>University of Wisconsin-Madison</b> , Colloquium	Dec. 2012
52. <b>University of Illinois, Urbana-Champaign</b> , Seminar	Oct. 2012
53. <b>Emory University</b> , Seminar	Sept. 2012
54. <b>Northeastern University</b> , Seminar	Apr. 2012
55. <b>University of Connecticut, Storrs</b> , Seminar	Apr. 2012
56. <b>Yale University</b> , Seminar	Feb. 2012
57. <b>Emory University</b> , Seminar	Dec. 2011
58. <b>University of Massachusetts, Amherst</b> , Seminar	Nov. 2011
59. <b>Northwestern University</b> , Seminar	Apr. 2011
60. <b>Boston College-MIT</b> , Joint Seminar	Feb. 2011
61. <b>CUNY Graduate Center</b> , Seminar	Dec. 2010
62. <b>SUNY Stony Brook</b> , Seminar	Dec. 2010
63. <b>University of Cologne, Germany</b> , Seminar	Nov. 2010
64. <b>MIT</b> , $\infty$ -dim'l Lie Algebras Seminar	Oct. 2010
65. <b>Wesleyan University</b> , Colloquium	Oct. 2010
66. <b>Yale University</b> , Arithmetic Geometry Seminar	Sept. 2010
67. <b>Yale University</b> , Colloquium	Feb. 2010
68. <b>University of Pittsburgh</b> , Colloquium	Jan. 2010
69. <b>University of Texas, Austin</b> , Seminar	Jan. 2010
70. <b>POSTECH, Pohang, Korea</b> , Seminar	Dec. 2009
71. <b>Rutgers University</b> , Colloquium	Dec. 2009
72. <b>Rice University</b> , Colloquium	Nov. 2009
73. <b>University of Wisconsin-Madison</b> , Seminar	Sept. 2009
74. <b>University of Wisconsin-Madison</b> , Seminar	Nov. 2008
75. <b>University College Dublin</b> , Seminar	Feb. 2008
76. <b>McMaster University, Canada</b> , Arith. Geometry Seminar	Nov. 2007
77. <b>Stanford University</b> , Seminar	Nov. 2007
78. <b>University of South Carolina</b> , Seminar	Nov. 2007
79. <b>University of Illinois, Urbana-Champaign</b> , Seminar	Oct. 2007
80. <b>University of Wisconsin-Madison</b> , Seminar	Oct. 2007
81. <b>Amherst College</b> , Five College Number Theory Seminar	May 2007
82. <b>University of Wisconsin-Madison</b> , Seminar	May 2007
83. <b>ETH Zurich, Switzerland</b> , Seminar	Dec. 2006
84. <b>Max-Planck-Institut, Bonn, Germany</b> , Seminar	Sept. 2006
85. <b>Princeton University</b> , Seminar	May 2006
86. <b>University of California, Los Angeles</b> , Seminar	Feb. 2006
87. <b>Boston University</b> , Algebra Seminar	Nov. 2005
88. <b>University of Wisconsin-Madison</b> , Seminar	Feb. 2005
89. <b>Harvard University</b> , Graduate Student Seminar	Jul. 2004

CONFERENCE  
AND  
WORKSHOP  
TALKS

90. <b>Int'l Conference on Modular Forms &amp; <math>q</math>-series</b> , U. Cologne	Mar. 2024
91. <b>Assoc. for Women in Math. Research Symposium</b> , Atlanta	Oct. 2023
92. <b>New Conn. Between Physics &amp; Number Thy.</b> , Pollica, Italy	Jun. 2023
93. <b>Joint Math. Meetings, Boston</b> , special sessions (2 talks)	Jan. 2023
94. <b>Spec(<math>\overline{\mathbb{Q}}</math>)</b> , Fields Institute, Toronto	July 2022
95. <b>100 years of mock theta functions</b> , Vanderbilt,	May 2022
96. <b>AMS Western Sectional, U. Denver</b> , special session	May 2022
97. <b>Joint Math. Meetings, Seattle</b> , special sessions (2 talks)	April 2022
98. <b>LGBTQ+ Math Day</b> , Fields Institute, keynote speaker	Nov. 2021
99. <b>Subbarao Centenary Symposium</b> , IISER, India (virtual)	July 2021
100. <b>New Conn. Num. Thy./Phys.</b> , INI Cambridge, UK (Zoom)	May 2021
101. <b>KITP Modularity in Quantum Systems</b> , (Zoom)	Oct. 2020
102. <b>Central U. of Himachal Pradesh, India</b> , (Zoom)	Sept. 2020

103.	<del>100 Years of Mock Theta Functions, Vanderbilt</del>	May 2020*
104.	<del>AMS Graduate Conference (Brown), keynote speaker</del>	April 2020*
105.	AMS-MAA Joint Meetings, Denver, special session	Jan. 2020
106.	Arithmetic, geometry and modular forms, ETH Zurich	Jun. 2019
107.	Hawaii Number Theory Conference (HINT)	Mar. 2019
108.	AMS Western Sectional, U. Hawaii, special session	Mar. 2019
109.	Modularity and 3-manifolds, ICERM (Brown)	Mar. 2019
110.	Connecticut Summer School in Number Theory, UConn	May 2018
111.	Modular Forms and Quantum Knots, BIRS, Banff	Mar. 2018
112.	AMS-MAA Joint Meetings, San Diego special session	Jan. 2018
113.	AMS Eastern Sectional, Hunter College, closing speaker	May 2017
114.	Connecticut Summer School in Number Theory, UConn	Aug. 2016
115.	Gainesville Number Theory Conference, UFlorida	Mar. 2016
116.	Illinois Number Theory Conference, UIUC	Aug. 2015
117.	Assoc. Women in Math. Research Symposium, UMaryland	Apr. 2015
118.	AMS-MAA Joint Meetings, San Antonio, special session	Jan. 2015
119.	Southern California Number Theory Day, UC-Irvine	Oct. 2014
120.	AMS Eastern Sectional, Temple University, special session	Oct. 2013
121.	Ramanujan 125, University of Florida	Nov. 2012
122.	University of Illinois Number Theory Conference	Oct. 2012
123.	Building Bridges: EU-US Conf., Aachen Uni., Germany	Aug. 2012
124.	Krupp Symposium, University of Cologne, Germany	Feb. 2012
125.	AMS-MAA Joint Meetings, Boston, special session	Jan. 2012
126.	Quebec-Maine Number Theory Conference	Oct. 2011
127.	CUNY Conference on Symmetric Groups	Sept. 2011
128.	AMS Eastern Spring Sectional, Holy Cross, special session	Apr. 2011
129.	ICTP Conference on Mock Modular Forms, Trieste, Italy	Mar. 2011
130.	AMS-MAA Joint Meetings, New Orleans, special session	Jan. 2011
131.	AMS-CMS Joint Meeting, Pucon, Chile	Dec. 2010
132.	University of Hawaii Workshop on Automorphic Forms	Mar. 2010
133.	KMS-AMS Winter Meeting, Seoul, Korea	Dec. 2009
134.	Mock $\vartheta$ -functions and Applications, MPIM Bonn, Germany	May 2009
135.	1047th Meeting of the AMS, UIUC	Mar. 2009
136.	University of Florida Conference on Quadratic Forms	Mar. 2009
137.	University of Hawaii Workshop on Automorphic Forms	May 2008
138.	University of Florida Number Theory Conference	Mar. 2008
139.	AMS-MAA Joint Meetings, San Diego, special session	Jan. 2008
140.	SASTRA-Ramanujan Conference, Kumbakonam, India	Dec. 2007
141.	The Fields Institute Workshop	Nov. 2007
142.	Heini Halberstam's 80th Birthday Conference, UIUC	May 2007
143.	21 <sup>st</sup> Automorphic Forms Workshop, UC-Santa Barbara	Mar. 2007
144.	Jahrestagung der DMV, Uni. Bonn, Germany	Sept. 2006
145.	20 <sup>th</sup> Automorphic Forms Workshop, UC-Boulder	Mar. 2006
146.	19 <sup>th</sup> Automorphic Forms Workshop, U. North Texas	Mar. 2005
147.	18 <sup>th</sup> Automorphic Forms Workshop, UC-Santa Barbara	Mar. 2004
148.	Summer School in Analytic Num. Theory, Catalina, CA	Aug. 2003
149.	AMS-MAA Joint Meetings, New Orleans, undergrad. prize	Jan. 2001
150.	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

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



8. REU Mini-Symposium at UConn (Zoom)	Jul. 2020
9. <del>Math. Forschungsinstitut Oberwolfach (MFO)</del>	<del>Aug/Sep 2020*</del>
10. <del>MAA Mathfest, Philadelphia</del>	<del>July 2020*</del>
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
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. · Kathy Xing (Amherst, '24), *thesis in-progress*.  
 THESIS · Thomas Meyer (Amherst, '23), *Resolution of the Alder-Andrews Conjecture*.  
 STUDENTS · 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.

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

UNDERGRAD.  
RESEARCH  
ADVISED

- Summer 2023 (Amherst): David Metacarpa '24, Wenche Tseng '24, *in-progress*
- 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

- 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
- 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
- Math 499 Senior Honors Thesis S15, S17, S18, F20 (as 498 II), S23, S24

**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 Spring 2024
- Department Associate Chair, Mathematics Fall 2023
- Department Chair, Mathematics & Statistics 2019–2021
- Faculty Committee on Adjudication 2021–2022
- 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, Mathematics Spring 2024
- Department Associate Chair, Mathematics Fall 2023
- Department Chair, Mathematics & Statistics 2019–2021
- Faculty Search Committees (Tenure-Track, Visitors, and Lecturers) annually, 2015–present
- Department Budget Subcommittee 2019–present
- Mathematics Colloquium Chair 2023–2024
- 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 (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 Panels\*
- **National Security Agency**, Grant Panels\*

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

### 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 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

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PUBLIC SCHOOL **EYE on Mathematics: Edgewood-Yale Educational Outreach** 2012–15  
OUTREACH  
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 June 15, 2023 —