Paul Pollack
Curriculum Vitæ[1]

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POSITIONS HELD

University of Illinois

J. L. Doob Research Assistant Professor/NSF Postdoctoral Fellow   Fall 2008–Spring 2011

Institute for Advanced Study

Member of the School of Mathematics   Fall 2009

Dartmouth College

Visiting Research Scholar   Spring 2010

University of British Columbia/Simon Fraser University

Postdoctoral Fellow   July 2011–April 2012

University of Georgia

Assistant Professor	Fall 2012–Summer 2016
Associate Professor	Fall 2016–Summer 2017; with tenure, Fall 2017–Summer 2020
Professor	Fall 2020–

EDUCATION

University of Georgia

Bachelor of Science, Mathematics   Spring 2003

Princeton University

Fall 2003 – Winter 2005

Dartmouth College

Master of Arts, Mathematics	June 2007
Ph.D., Mathematics	June 2008

    Thesis: *Prime polynomials over finite fields*

HONORS AND AWARDS

NSF Algebra and Number Theory Award DMS-2001581   2020–2023

Statistical Questions in Number Theory and Arithmetic Geometry (award amount $168,000)

Honorific member of the Carrera Nacional de Investigadores en Ciencia   2019–

The Carrera Nacional de Investigadores en Ciencia, of the Dominican Republic, is a government initiative with the goal of drawing attention to those who have dedicated their life to research in science, technology, and innovation.

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[1]Last updated: September 6, 2021

Sandy Beaver Excellence in Teaching Award 2018

> Award given each year to honor UGA Franklin College faculty members showing "sustained commitment to high-quality instruction".

NSF Algebra and Number Theory Award DMS-1402268 2014–2019

> Statistical problems in elementary, analytic, and algebraic number theory (award amount $130,925)

NSF Algebra and Number Theory Award DMS-1502336
(co-PI w/ L. Thompson, R. Rumely, and G. Yu) Summer 2015

> Conference grant for "Elementary, analytic, and algorithmic number theory: Research inspired by the mathematics of Carl Pomerance" (award amount $19,728)

NSA Conference Award
(co-PI w/ L. Thompson, R. Rumely, and G. Yu) Summer 2015

> "Carl Pomerance 70th birthday conference" (award amount $15,788)

RECENT INVITED ADDRESSES

2016 Gainesville International Number Theory conference March 19, 2016

> 'Phi-nomenology and torsion subgroups of CM elliptic curves'

Analytic Number Theory workshop in Oberwolfach, Germany November 12, 2016

> 'Torsion subgroups of CM elliptic curves'

2017 National Joint Meetings of the AMS and MAA; AMS special session on "Discrete Structures in Number Theory" January 5, 2017

> 'Torsion subgroups of CM elliptic curves'

MSRI workshop on "Recent developments in Analytic Number Theory" May 5, 2017

> 'Arithmetic functions: something old, something new'

XII International Congress of Scientific Research, Dominican Republic June 8, 2017

> 'Arithmetic functions: something old, something new'

60th Anniversary Ross Mathematics Program reunion conference June 18, 2017

> 'Summing divisors: a status report on the first 2000 years'

Invited address at Spring 2018 KYMAA meeting April 6, 2018

> 'Summing divisors: a status report on the first 2000 years'

Plenary talk, 2018 INTEGERS conference Oct 3, 2018

> 'Squares mod p'

2019 National Joint Meetings of the AMS and MAA; AMS special session on "Analytic Number Theory" January 18, 2019

> 'Some algebraic contributions to Waring's problem'

2019 National Joint Meetings of the AMS and MAA; AMS special session on "Counting Methods in Number Theory" January 18, 2019

> 'Popular values and popular subsets of Euler's φ-function'

Max Planck Number Theory Seminar November 13, 2019

> 'The popularity of values of Euler's function'

2019 Winter Meeting of the Canadian Mathematical Society December 9, 2019

> 'Popular values and popular subsets of Euler's φ-function'

2020 AMS Fall Southeastern Sectional Meeting; special session on "Coding Theory, Cryptography, and Number Theory" October 2020

'Thoughts on the order of a mod p'

Luxembourg Number Theory Seminar October 2020

'Thoughts on the order of a mod p'

Kansas State Number Theory Seminar March 2021

'Multiplicative orders mod p'

Nancy-Metz Number Theory Seminar April 2021

'Multiplicative orders mod p'

Combinatorial and Additive Number Theory (CANT) 2021 May 2021

'Multiplicative orders mod p'

ACCEPTED PAPERS

1. **An explicit approach to Hypothesis H for polynomials over a finite field** 2008
   The anatomy of integers. Proceedings of a conference on the anatomy of integers, Montreal, March 13th-17th, 2006. Editors: J.M. de Koninck, A. Granville and F. Luca, pp. 259–273

2. **On a conjecture of Beard, O'Connell and West concerning perfect polynomials** 2008
   (joint with L. Gallardo and O. Rahavandrainy)
   Finite Fields and their Applications **14**, 242–249

3. **A polynomial analogue of the twin prime conjecture** 2008
   Proc. Amer. Math. Soc. **136**, 3775–3784

4. **Simultaneous prime specializations of polynomials over finite fields** 2008
   Proc. London Math. Soc. **97**, 545–567

5. **Arithmetic properties of polynomial specializations over finite fields** 2009
   Acta Arith. **136**, 57-79

6. **On the distribution of sociable numbers** (w/ M. Kobayashi and C. Pomerance) 2009
   J. Number Theory **129**, 1990-2009

7. **A remark on sociable numbers of odd order** 2010
   J. Number Theory **130**, 1732–1736

8. **Revisiting Gauss's analogue of the prime number theorem for polynomials over a finite field** 2010
   Finite Fields and their Applications **16**, 290-299

9. **Hypothesis H and an impossibility theorem of Ram Murty** 2010
   Rend. Sem. Mat. Univ. Pol. Torino **68**, 183–197

10. **Multiperfect numbers with identical digits** (joint with F. Luca) 2011
    J. Number Theory **131**, 260–284

11. **On polynomial rings with a Goldbach property** 2011
    Amer. Math. Monthly **118**, 71–77

12. **On Dickson's theorem concerning odd perfect numbers** 2011
    Amer. Math. Monthly **118**, 161–164

13. **Long gaps between deficient numbers** 2011
    Acta Arith. **146**, 33–42

14. **On Hilbert's solution of Waring's problem** 2011
    Cent. Eur. J. Math. **9**, 294–301

15. **Powerful amicable numbers** 2011
    Colloq. Math. **122**, 103–123

16. **Values of the Euler and Carmichael functions which are sums of three squares** 2011
    Integers **11**, article A13, 16 pages (electronic)

17. **On some friends of the sociable numbers** 2011
    Monatsh. Math. **162**, 321–327

18. **The greatest common divisor of a number and its sum of divisors** 2011
    Michigan Math. J. **60**, 199–214

19. **Perfect numbers with identical digits** 2011
    Integers **11A**. Proceedings of the Integers Conference 2009. Article 18, 11 pages (electronic)

20. **Quasi-amicable numbers are rare** 2011
    J. Integer Sequences **14**, article 11.5.2, 13 pages (electronic)

21. **The exceptional set in the polynomial Goldbach problem** 2011
    Int. J. Number Theory **7**, 579–591

22. **The Möbius transform and the infinitude of primes** 2011
    Elem. Math. **66**, 118–120

23. **Remarks on a paper of Ballot and Luca concerning prime divisors of $a^{f(n)} - 1$** 2011
    New York J. Math **17**, 553–567

24. **On common values of $\phi(n)$ and $\sigma(m)$, I** (joint with K. Ford) 2011
    Acta Math. Hungarica **133**, 251–271

25. **Two remarks on iterates of Euler's totient function** 2011
    Arch. Math. **97**, 443–452

26. **An arithmetic function arising from Carmichael's conjecture** (w/ F. Luca) 2011
    J. Théor. Nombres Bordeaux **23**, 697–714

27. **The average least quadratic nonresidue modulo m and other variations
    on a theme of Erdős** 2012
    J. Number Theory **132**, 1185–1202

28. **On the parity of the number of multiplicative partitions and related problems** 2012
    Proc. Amer. Math. Soc. **140**, 3793–3803

29. **On perfect and near-perfect numbers** (joint with V. Shevelev) 2012
    J. Number Theory **132**, 3037–3046

30. **Prime-perfect numbers** (joint with C. Pomerance) 2012
    Integers **12A**/special issue in memory of J. L. Selfridge, article A14, 19 pages

31. **Finiteness theorems for perfect numbers and their kin** 2012
    American Math. Monthly **119**, 670–681

32. **How many primes can divide the values of a polynomial?** (joint with F. Luca) 2012
    Acta Arith. **156**, 19–27

33. **On congruences of the form $\sigma(n) \equiv a \pmod{n}$** (with A. Anavi and C. Pomerance) 2012
    Int. J. Number Theory **9**, 115–124

34. **On common values of $\phi(n)$ and $\sigma(m)$, II** (joint with K. Ford) 2012
    Algebra Number Theory **6**, 1669–1696

35. **The average least character nonresidue and further variations
    on a theme of Erdős** (joint with G. Martin) 2013
    J. London Math. Soc. **87**, 22–42

36. **On the degrees of divisors of $T^n - 1$** (joint with L. Thompson) 2013
    New York J. Math **19**, 91–116

37. **Irreducible polynomials with several prescribed coefficients** 2013
    Finite Fields and their Applications **22**, 70–78

38. **Practical pretenders** (joint with L. Thompson) 2013
    Publ. Math. Debrecen **82**, 651–667

39. **Sets of monotonicity for Euler's totient function** (w/ C. Pomerance and E. Treviño) 2013
    Ramanujan J. **30**, 379–398

40. **On Mertens' theorem for Beurling primes** 2013
    Canad. Math. Bull. **56**, 829–843

41. **On the distribution of some integers related to
    perfect and amicable numbers** (joint with C. Pomerance) 2013
    Colloq. Math. **30**, 169–182

42. **The smallest inert prime in a cyclic number field of prime degree** 2013
    Math. Res. Lett. **20**, 163–179

43. **Paul Erdős and the rise of statistical thinking
    in elementary number theory** (joint with C. Pomerance) 2013
    Erdős Centennial, L. Lovász, I. Z. Ruzsa, and V. T. Sós, eds., János Bolyai Math. Soc. and
    Springer-Verlag, Hungary, 2013, pp. 515–523

44. **Uncertainty principles connected with the Möbius inversion formula**
    (with C. Sanna) 2013
    Bull. Aust. Math. Soc. **88**, 460–472

45. **Equidistribution mod q of abundant and deficient numbers** 2014
    Uniform Distribution Theory **9**, 99–114

46. **A remark on prime divisors of partition functions** 2014
    Int. J. Number Theory **10**, 125–131

47. **The error term in the count of abundant numbers** (joint with M. Kobayashi) 2014
    Mathematika **60**, 43–65

48. **The smallest prime that splits completely in an abelian number field** 2014
    Proc. Amer. Math. Soc. **142**, 1925–1934

49. **Square values of Euler's function** (joint with C. Pomerance) 2014
    Bull. London Math. Soc. **46**, 403–414

50. **The primes that Euclid forgot** (joint with E. Treviño) 2014
    Amer. Math. Monthly **121**, 433–437

51. **Variations on a theorem of Davenport concerning abundant numbers**
    (w/ E. Jennings and L. Thompson) 2014
    Bull. Aust. Math. Soc. **89**, 437–450

52. **Prime splitting in abelian number fields
    and linear combinations of Dirichlet characters**   2014
    Int. J. Number Theory **10**, 885–903

53. **Averages of the number of points on elliptic curves** (w/ G. Martin and E. Smith)   2014
    Algebra Number Theory **8**, 813–836

54. **Bounded gaps between primes with a given primitive root**   2014
    Algebra Number Theory **8**, 1769–1786

55. **Some arithmetic properties of the sum of proper divisors
    and the sum of prime divisors**   2014
    Illinois J. Math **58**, 125–147

56. **Euler and the partial sums of the prime harmonic series**   2015
    Elem. Math. **70**, 13–20

57. **Bounded gaps between primes in number fields and function fields**
    (with A. Castillo, C. Hall, R. Lemke Oliver, and L. Thompson)   2015
    Proc. Amer. Math. Soc. **143**, 2841–2856

58. **An easy generalization of Euler's theorem on the series of prime reciprocals**   2015
    American Math. Monthly **122**, 159–163

59. **Some normal numbers generated by arithmetic functions** (with J. Vandehey)   2015
    Canad. Math. Bull. **58**, 160–173

60. **The truth about torsion in the CM case** (with P. L. Clark)   2015
    C. R. Math. Acad. Sci. Paris **353**, 683–688

61. **Palindromic sums of proper divisors**   2015
    Integers **15A**/Proceedings of the Erdős Centennial Conference, article A13 (electronic),
    12 pages

62. **Harmonious pairs** (joint with M. Kozek, F. Luca, and C. Pomerance)   2015
    Int. J. Number Theory **11**, 1633–1651

63. **Arithmetic functions at consecutive shifted primes** (with L. Thompson)   2015
    Int. J. Number Theory **11**, 1477–1498

64. **The length spectra of arithmetic hyperbolic 3-manifolds and their totally
    geodesic surfaces** (with B. Linowitz and J. S. Meyer)   2015
    New York J. Math **21**, 955–972

65. **Besicovitch, bisection, and the normality of** $0.1491625\ldots$ (with J. Vandehey)   2015
    American Math. Monthly **122**, 757–765

66. **Remarks on fibers of the sum-of-divisors function**   2015
    in *Analytic Number Theory: In Honor of Helmut Maier's 60th Birthday*, M. Rassias and C.
    Pomerance, eds., Springer, 305–320

67. **On relatively prime amicable pairs**   2015
    Mosc. J. Comb. Number Theory **5**, 36–51

68. **The average of the first invariant factor for reductions of
    CM elliptic curves mod** p (with T. Freiberg)   2015
    Int. Math. Res. Notices **2015**, no. 21, 11333–11350

69. **Some problems of Erdős on the sum-of-divisors function**
(joint with C. Pomerance) 2016
Trans. Amer. Math. Soc. Ser. B. **3**, 1–26

70. **A Titchmarsh divisor problem for elliptic curves** 2016
Math. Proc. Cambridge Philos. Soc. **160**, 167–189

71. **A remark on divisor weighted sums** 2016
Ramanujan J. **40**, 63–69

72. **Bounded gaps between primes with a given primitive root, II** (w/ R. C. Baker) 2016
Forum Mathematicum **28**, 675–687

73. **Digitally delicate primes** (w/ J. Hopper) 2016
J. Number Theory **168**, 247–256

74. **The representation function for sums of three squares
along arithmetic progressions** 2016
Proc. Japan Acad., Ser. A Math. Sci. **92**, 96–99

75. **An elemental Erdős-Kac theorem for algebraic number fields** 2017
Proc. Amer. Math. Soc. **145**, 971–987

76. **Extremal primes for elliptic curves with complex multiplication** (w/ K. James) 2017
J. Number Theory **172**, 383–391

77. **Anatomy of torsion in the CM case** (with A. Bourdon and P. L. Clark) 2017
Math. Z. **285**, 795–820

78. **Bounds for the first several prime character nonresidues** 2017
Proc. Amer. Math. Soc. **145**, 2815–2826

79. **A simple proof of a theorem of Hajdu–Jarden–Narkiewicz** 2017
Colloq. Math. **147**, 217–220

80. **Two problems concerning irreducible elements in rings of integers of number fields**
(w/ L. Troupe) 2017
Bull. Aust. Math. Soc. **96**, 44–58

81. **Counting perfect polynomials** (w/ U. Caner Cengiz and E. Treviño) 2017
Finite Fields and their Applications **47**, 242–255

82. **Clustering of linear combinations of multiplicative functions**
(w/ N. Lebowitz-Lockard) 2017
J. Number Theory **180**, 660–672

83. **Subgroup avoidance for primes dividing the values of a polynomial** 2017
Rocky Mountain J. Math **47**, 2043–2050

84. **Numbers divisible by a large shifted prime and large torsion subgroups of CM elliptic
curves** (w/ N. McNew and C. Pomerance) 2017
Int. Math. Res. Notices **2017**, 5525–5553

85. **Torsion subgroups of CM elliptic curves over odd degree number fields**
(w/ A. Bourdon) 2017
Int. Math. Res. Notices **2017**, 4923–4961

86. **Clusters of primes with square-free translates** (w/ R. C. Baker) 2017
Revista Mat. Iberoam. **33**, 809–829

87. **Bounded gaps between primes and the length spectra of arithmetic hyperbolic 3-orbifolds** (w/ B. Linowitz, D. B. McReynolds, and L. Thompson)   2017
   C. R. Math. Acad. Sci. Paris **355**, 1121–1126

88. **The number of atoms in a primefree atomic domain** (w/ P. L. Clark and S. Gosavi)   2017
   Comm. Algebra **45**, 5431–5442

89. **The truth about torsion in the CM case, II** (w/ P. L. Clark)   2017
   Quart. J. Math. **68**, 1313–1333

90. **Systoles of arithmetic hyperbolic surfaces and 3-manifolds** (w/ B. Linowitz, D. B. McReynolds, and L. Thompson)   2017
   Math. Res. Lett. **24**, 1497–1522

91. **Refinements of Lagrange's four-square theorem** (w/ L. Goldmakher)   2018
   Amer. Math. Monthly **125**, 258–263

92. **The least prime quadratic nonresidue in a prescribed residue class mod** 4   2018
   J. Number Theory **187**, 403–414

93. **Thue's lemma in $\mathbb{Z}[i]$ and Lagrange's four-square theorem**   2018
   Elem. Math. **73**, 60–65

94. **Divisor-sum fibers** (w/ C. Pomerance and L. Thompson)   2018
   Mathematika **64**, 330–342

95. **Finding the four squares in Lagrange's theorem** (w/ E. Treviño)   2018
   Integers **18A**, article A15, 16 pages

96. **Pursuing polynomial bounds on torsion** (w/ P. L. Clark)   2018
   Israel J. Math. **227**, 889–909

97. **A remark on the number field analogue of Waring's constant $g(k)$**   2018
   Math. Nachr. **291**, 1893–1898

98. **Waring's problem for integral quaternions**   2018
   Indag. Math. **29**, 1259–1269

99. **Counting and effective rigidity in algebra and geometry** (joint with B. Linowitz, D. B. McReynolds, and L. Thompson)   2018
   Invent. Math. **213**, 697–758

100. **Typically bounding torsion** (w/ P. L. Clark and M. Milosevic)   2018
   J. Number Theory **192**, 150–167

101. **How often is Euler's totient a perfect power?**   2019
   J. Number Theory **197**, 1–12

102. **Dirichlet's proof of the three-square theorem: an algorithmic perspective** (w/ P. Schorn)   2019
   Math. Comp. **88**, 1007–1019

103. **Small prime kth power residues for $k = 2, 3, 4$: a reciprocity laws approach** (w/ K. Benli)   2019
   Proc. Amer. Math. Soc. **147**, 987–994

104. **A note on Golomb topologies** (w/ N. Lebowitz Lockard and P. L. Clark)   2019
   Quaestiones Math. **42**, 73–86

105. **A note on the least prime that splits completely in a nonabelian Galois number field**
(w/ Z. Ge and M. Milinovich) 2019
Math. Z. **292**, 73–86

106. **Popular subsets for Euler's φ-function** 2019
Math. Ann. **374**, 253–271

107. **Eigenvalues of the Laplacian on domains with fractal boundary**
(w/ C. Pomerance) 2019
Horizons of Fractal Geometry and Complex Dimensions. 2016 Summer School: Fractal Geometry
and Complex Dimensions. In celebration of the 60th birthday of Michel Lapidus. R.G. Niemeyer,
E.P.J. Pearse, J.A. Rock, T. Samuel, eds., AMS Contemporary Mathematics, vol. 731, 2019.

108. **Symmetric primes revisited** (w/ W.D. Banks and C. Pomerance) 2019
Integers **19**, article A54, 7 pages

109. **Nonnegative multiplicative functions on sifted sets, and the square roots of -1
modulo shifted primes** 2020
Glasgow Math. J. **62**, 187–199

110. **Twists of hyperelliptic curves by integers in progressions mod p**
(w/ D. Krumm) 2020
Acta Arith. **192**, 63–71

111. **Reciprocity by resultant in $k[t]$** (w/ P.L. Clark) 2020
L'Enseignement Math. **65**, 101–116

112. **On ordered factorizations into distinct parts** (w/ N. Lebowitz-Lockard) 2020
Proc. Amer. Math. Soc. **148**, 1447–1453

113. **A generalization of the Hardy-Ramanujan inequality and applications** 2020
J. Number Theory **210**, 171–182

114. **The smallest root of a polynomial congruence** 2020
Math. Res. Lett. **27**, 43–66

115. **On sums of consecutive triangular numbers** (w/ D. Subramaniam and E. Treviño) 2020
Integers **20A**. Article A15, 10 pages (electronic)

116. **Phi, primorials, and Poisson** (w/ C. Pomerance) 2020
Illinois J. Math. **64**, 319–330

117. **Multiplicative partitions of numbers with a large squarefree divisor** 2020
Ramanujan J. **53**, 595–605

118. **The maximal size of the k-fold divisor function for very large k** 2020
J. Ramanujan Math. Soc. **25**, 341–345

119. **The reciprocal sum of divisors of Mersenne numbers** (w/ Z. Engberg) 2021
Acta Arith. **197**, 421–440

120. **Finite sets containing near-primitive roots** (w/ K. Agrawal) 2021
J. Number Theory **225**, 360–373

121. **Comparing multiplicative orders mod p, as p varies** (w/ M. Just) 2021
New York J. Math. **27**, 600–614

122. **The number of non-cyclic Sylow subgroups of the multiplicative group
modulo n** 2021
Canad. Math. Bull. **64**, 204–215

123. **A quick route to unique factorization in quadratic orders** (w/ N. Snyder)   2021+
   Amer. Math. Monthly **128**, 554–558

124. **On the stable reduction of hyperelliptic curves** (w/ C. Gong, Y. Gu, J. Lu)   2021+
   Tohoku Math. J. (to appear)

125. **Numbers which are orders only of cyclic groups**   2021+
   Proc. Amer. Math. Soc. (to appear)

126. **The distribution of numbers with many factorizations**   2021+
   Math. Z. (to appear)

127. **The least degree of a CM point on a modular curve**
   (w/ P.L. Clark, T. Genao, and F. Saia)   2021+
   J. London Math. Soc. (to appear)

BOOKS

Not always buried deep: A second course in elementary number theory   2009
   American Mathematical Society

A conversational introduction to algebraic number theory   2017
   American Mathematical Society

Steps into analytic number theory (w/ A. Singha Roy)   2021
   Springer

SERVICE ACTIVITIES

Editorial positions
   Associate Editor for the American Mathematical Monthly (2016 –).
   Editor for the International Journal of Number Theory (2017–).
   Editor for AMS Student Mathematical Library (2022–2026.)

Ross Mathematics Foundation
   Board member (2018–). The Ross Mathematics Foundation oversees the Ross Program (both US and Asia variants): `https://rossprogram.org/`

Refereeing
   Have refereed for Acta Arith., Adv. Math., Algebra Number Theory, Amer. Math. Monthly, Bol. Soc. Mat. Mexicana, Bull. Aust. Math. Soc., Bull. Brazilian Math. Soc., Bull. Korean Math. Soc., Canad. Math. Bull., Canad. J. Math., Exp. Math., Integers, Int. J. Number Theory, Int. Math. Res. Notices, J. Integer Sequences, J. Logical and Algebraic Methods in Programming, J. Number Theory, J. Combinatorics and Number Theory, Math. Comp., Mathematika, Statist. Probab. Lett., and the Handbook of Finite Fields.

   Have refereed grant proposals for the National Security Administration. Served on National Science Foundation grant panels in 2015, 2017, and 2020.

Special session organizer
   Co-organized (with L. Goldmakher, M. Milinovich, J. Kish) a special session at the 2012 AMS/MAA Joint Meetings titled "New perspectives on multiplicative number theory." This was a special session following up on an NSF-sponsored Mathematics Research Communities workshop ("The pretentious view of analytic number theory").

   For the 2014 Joint Meetings, co-organized (with C. Pomerance) an MAA Invited Paper Session titled "The continuing influence of Paul Erdős in number theory".

   Organized the special session "Elementary methods in analytic number theory" at the Spring 2015 Southeastern AMS Sectional Meeting in Huntsville, AL (March 27–29, 2015).

   Organized (with R. Lemke Oliver and F. Thorne) a special session for the 2017 AMS/MAA Joint Meetings titled "Analytic number theory and arithmetic" (January 7, 2017).

Work with junior mathematicians

Served on a Young Mathematicians' Network panel at the 2016 AMS/MAA Joint Meetings. The subject was "Finding a thesis topic and advisor." Co-panelist with Allison Henrich of Seattle University.

Since 2001, the University of Georgia has organized a high school math tournament for students in Georgia and neighboring states. Since 2012, I have served as one of the primary contest organizers. In addition, in the summers of 2013, 2014, and 2016, I was a faculty mentor for the week-long UGA MathCamp organized by Angela Gibney and Danny Krashen.

Was one of 11 speakers at the 60th anniversary Ross Program reunion conference in June 2017. The Ross Program is a residential summer camp where high school students are immersed in the process of mathematical discovery for six weeks.

Co-ran the Ross Mathematics Asia Program in Huangshan City, Anhui, China, in Summer 2018 (jointly with Enrique Treviño, Lake Forest College). Taught Advanced Courses at the 2019 Ross Asia Program (Zhenjiang, Jiangsu, China) and the 2020 and 2021 Ross Programs (online).

Teaching in developing countries

Taught a one-week course in Manila in July, 2013 for a summer school on algebraic curves. The summer school was sponsored by CIMPA (International Centre for Pure and Applied Mathematics) and ICTP (the Abdus Salam International Centre for Theoretical Physics); both of these are organizations aiming to promote scientific education in the developing world.

In Summer 2017 and Summer 2019, taught minicourses in number theory at the Universidad Autonoma de Santo Domingo (UASD), in the Dominican Republic. The courses introduced students and local faculty to central topics in elementary and analytic number theory. This was part of an effort to recruit and train prospective mathematics PhD students.

MENTORING

Postdoctoral mentor

Lola Thompson (2012–2013)
Joseph Vandehey (2013–2016)

Thesis supervisor

Emily Jennings (M.A., 2014)
Lee Troupe (Ph.D., Spring 2016)
Noah Lebowitz-Lockard (Ph.D., Spring 2019)
Kubra Benli (Ph.D., Spring 2020)
Komal Agrawal (Ph.D., in progress)
Matthew Just (Ph.D., in progress)

Undergraduate research supervisor (through UGA's Center for Undergraduate Research Opportunities)

Jackson Douglas Hopper (Spring 2015–present); Jackson received a $1000 CURO research assistantship in Spring 2015 and a $3000 CURO summer fellowship in Summer 2015. Our work on "digitally delicate" primes appeared in the Journal of Number Theory (paper #73 above).

UGA TEACHING EXPERIENCE ───────────────────────

Math 2260: Calculus II for science and engineering	Fall 2012
Math 3220: Advanced problem solving	Fall 2012
Math 3100: Sequences and series	Spring 2013
Math 4400/6400: Elementary number theory	Spring 2013
Math 3220: Advanced problem solving	Fall 2013
Math 8440: Advanced topics in elementary number theory	Fall 2013
Math 3100: Sequences and series	Spring 2014
Math 3220: Advanced problem solving	Fall 2014
Math 4150: Complex variables	Fall 2014
Math 3100H: Sequences and series (Honors)	Spring 2015
Math 3220: Advanced problem solving	Fall 2015
Math 4000: Modern algebra and geometry I	Fall 2015
Math 8850: Introduction to mathematical research (joint w/ P. L. Clark)	Fall 2015
Math 3100H: Sequences and series (Honors)	Spring 2016
Math 8400: Algebraic number theory	Spring 2016
Math 8850: Introduction to mathematical research (joint w/ P. L. Clark)	Spring 2016
Math 3220: Advanced problem solving	Fall 2016
Math 4000: Modern algebra and geometry I	Fall 2016
Math 3100H: Sequences and series (Honors)	Spring 2017
Math 4400/6400: Elementary number theory	Spring 2017
Math 3100: Sequences and series	Fall 2017
Math 3220: Advanced problem solving	Fall 2017
Math 8400: Algebraic number theory	Fall 2017
Math 3220: Advanced problem solving	Fall 2017
Math 8400: Algebraic number theory	Fall 2017
Math 4000: Modern algebra and geometry I	Spring 2018
Math 8440: Analytic number theory	Fall 2018
Math 4000: Modern algebra and geometry I	Fall 2018
Math 4000: Modern algebra and geometry I	Spring 2019
Math 4400/6400: Elementary number theory	Spring 2019
Math 3100: Sequences and series ($\times 2$)	Spring 2020
Math 3200: Introduction to higher mathematics	Spring 2020
Math 3100: Sequences and series	Fall 2020
Math 3220: Advanced problem solving	Spring 2021
Math 8400: Algebraic number theory	Spring 2021
Math 4400: Elementary Number Theory	Spring 2021
Math 3220: Advanced problems solving	Fall 2021
Math 3100: Sequences and series	Fall 2021