

KEVIN JAMES

Founding Director and Professor
School of Mathematical & Statistical Sciences
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December 26, 2020

EDUCATION.

Ph.D., University of Georgia, 1997, Mathematics.

B.S., University of Georgia, 1991, Mathematics and Computer Science.

PROFESSIONAL EXPERIENCE.

Founding Director of SMSS, Clemson University, 11/2019 - present,

Interim Director, Clemson University, 1/2019 - 10/2019,

Interim Director in training, Clemson University, 8/2018 - 12/2018,

Coordinator of Cybersecurity Outreach, Clemson University, 7/2017 - 8/2018,

Coordinator of Graduate Studies, Clemson University, 7/2014 - 8/2017,

Professor, Clemson University, 8/2013 - present,

Associate Professor, Clemson University, 8/2006 - 8/2013,

Assistant Professor, Clemson University, 7/2000 - 8/2006,

S. Chowla Research Assistant Professor, The Pennsylvania State University, 8/1997
- 6/2000,

ADMINISTRATIVE ACCOMPLISHMENTS Administrative activities and accomplishments as Director of SMSS.

Developed faculty led Strategic Plan and Variable Workload Model for SMSS

Assisted in establishment of collaborative degree program with nearby HBCU, SC State.

Developed a successful hiring strategy for underrepresented groups leading to the inclusion of the first African American woman in college of SCIENCE.

Initiated a school supported teaching & research postdoc program

Successfully launched a totally online MS in Data Science and Analytics program which is joint with the department of Management.

Assisted in setting up \$100K Endowed Jeff and Karen Camm Lecture Series on BIG applications of the Mathematical and Statistical Sciences

Actively engage with Development Officers to build Industry and Private partnerships.

Adjusted teaching loads for Associate Professors and graduate students to be more in line with Clemson's R1 research focus.

Expanded nationally competitive hiring practices to the position of lecturer.

Assisted in development of new bylaws for SMSS

Assisted in revision of tenure and promotion guidelines for SMSS.

MEMBERSHIPS.

American Mathematical Society.

Mathematical Association of America.

PUBLICATIONS.

Refereed Journal Publications.

1. K. James, *L-series with non-zero central critical value*, Journal of the American Mathematical Society, **11** (1998), 635–641.
2. K. James and K. Ono, *On the irreducibility of Hecke polynomials*, Journal of Number Theory, **73** (1998), 527–532.
3. K. James and K. Ono, *Selmer groups of quadratic twists of elliptic curves*, Math. Ann., **314**, (1999), no. 1, 1–17.
4. K. James, *Elliptic Curves satisfying the Birch and Swinnerton-Dyer conjecture mod 3*, Journal of Number Theory, **76** (1999), 16–21.
5. D. Farmer and K. James, *The irreducibility of some level-1 Hecke polynomials*, Math. Comp. **71** (2002) no. 239, 1263–1270.
6. K. James, *Average Frobenius distributions for elliptic curves with 3-torsion*, Journal of Number Theory **109** (2004) no. 2, 278–298.
7. K. James, *Averaging Special Values of Dirichlet L-series*, Ramanujan Journal, **10**, (2005), no. 1, 75–87.
8. J. Battista, J. Bayless, D. Ivanov and K. James, *Average Frobenius distributions for elliptic curves with nontrivial rational torsion*, Acta Arith. **119** (2005), no. 1, 81–91.
9. K. Bowman, N. Calkin, Z. Cochran, T. Flowers, K. James and S. Purvis, *Linear independence in a random binary vector model*, 36th Southeastern International Conference on Combinatorics, Graph Theory, and Computing. Congr. Numer. **172** (2005), 29–32.

10. N. Calkin, K. James, S. Purvis, S. Race, K. Schneider, M. Yancey, *Counting Kings: Explicit Formulas, Recurrence Relations, and Generating Functions! Oh My!* *Congressus Numerantium* **182** (2006), 41-51.
11. N. Calkin, K. James, S. Purvis, S. Race, K. Schneider, M. Yancey, *Counting Kings: As easy as $\lambda_1, \lambda_2, \lambda_3, \dots$* *Congressus Numerantium* **183** (2006), 83-95.
12. K. James and G. Yu, *Average Frobenius distribution of elliptic curves*, *Acta Arith.* **124** (2006), 79-100.
13. M. Brown, N. Calkin, K. James, A. King, S. Purvis and R. Rhoades, *Trivial Selmer groups and the number of even partitions of a graph.*, *INTEGERS: ELECTRONIC JOURNAL OF COMBINATORIAL NUMBER THEORY*, **6** (2006), #A33.
14. N. Calkin, J. Davis, K. James, E. Perez and C. Swannack, *Computing the integer partition function.*, *Math. Comp.* **76** (2007), 1619-1638.
15. B. Faulkner and K. James, *A graphical approach to computing Selmer groups of congruent number curves*, *Ramanujan Journal*, **14** (2007) no. 1, 107–129.
16. B. Brown, N. Calkin, T. Flowers, K. James, E. Smith and A. Stout, *Elliptic Curves, Modular Forms, and Sums of Hurwitz Class Numbers.*, *Journal of Number Theory*, **128**, no. 6, (2008), 1847–1863.
17. N. Calkin, N. Drake, K. James, S. Law, P. Lee, D. Penniston, J. Radder, *Divisibility properties of the 5-regular and 13-regular partition functions*, *INTEGERS: ELECTRONIC JOURNAL OF COMBINATORIAL NUMBER THEORY*, **8(1)** (2008) # **A60**.
18. J. Burkhart, N. J. Calkin, S. Gao, J. C. Hyde-Volpe, K. James, H. Maharaj, S. Manber, J. Ruiz, E. Smith, *Finite field elements of high order arising from modular curves*, *Designs, Codes and Cryptography*, **51:3** June 2009.
19. N. Calkin, K. James, J. Janoski, S. Leggett, B Richards, N. Sitaraman, S. Thomas, *Computing strategies for graphical Nim*, *Proceedings of the Forty-First Southeastern International Conference on Combinatorics, Graph Theory and Computing*, *Congr. Numer.* **202**, (2010) 171–185.
20. N. Calkin, J. Davis, M. Delcourt, Z. Engberg, J. Jacob, K. James, *Discrete Bernoulli convolutionns: An algorithmic approach toward bound improvement*, *Proc. Amer. Math. Soc.* **139** (2011) no. 5, 1579–1584.
21. K. James, E. Smith *Average Frobenius Distributions for elliptic curves over Galois extensions*, *Math Proc Camb Phil Soc.* **150** issue 03 (2011) 439–458.
22. N. Calkin, B. Faulkner, K. James, M. King, D. Penniston, *Average Frobenius distributions for elliptic curves over abelian extensions*, *Acta Arith.* **149** (2011), no. 3, 215-244.
23. J. Beyerl, K. James, C. Trentacoste, H. Xue, *Products of Nearly Holomorphic Eigenforms*, *Ramanujan Journal*, **27**, Issue 3 (2012), 377–386.
24. K. James and E. Smith, *Average Frobenius distribution for the degree two*

- primes of a number field*, Math. Proc. Camb. Phil. Soc., **154**, Issue 3 (2013), 499–525.
25. N. Calkin, J. Davis, M. Delcourt, Z. Engberg, J. Jacob, K. James, *Taking the convoluted out of Bernoulli convolutions: A discrete approach*, INTEGERS: ELECTRONIC JOURNAL OF COMBINATORIAL NUMBER THEORY, **13** (2013), Paper No. A-19, 12 pp.
 26. T. Feng, K. James, C. Kim, E. Ramos, C. Trentacoste, H. Xue, *A graph theoretic approach to the 3-Selmer groups of certain elliptic curves*, The Ramanujan Journal: Volume 31, Issue 3 (2013), Page 435–459.
 27. J. Beyerl, K. James, H. Xue, *On the divisibility of Eigenforms by other Eigenforms*, Proc. Amer. Math. Soc. (2014), no. 1, 29–38.
 28. J. Hedetniemi, K. James, H. Xue, *Champion Primes for Elliptic Curves over Fields of Prime Order*, INTEGERS: ELECTRONIC JOURNAL OF COMBINATORIAL NUMBER THEORY, **14** (2014) # **A53**.
 29. Kevin James, Brandon Tran, Minh-Tam Trinh, Phil Wertheimer, Dania Zantout, *Extremal Traces of Frobenius of Elliptic Curves*, Journal of Number Theory, **164** (2016) 282–298.
 30. J. Brown, R. Cass, K. James, R. Keaton, S. Parenti, D. Shankman, *Counting tamely ramified extensions of local fields up to isomorphism*, Integers 16 (2016), Paper No. A53, 12 pp.
 31. Jim Brown, David Heras, Kevin James, Rodney Keaton, Andrew Qian, *Amicable pairs and aliquot cycles for elliptic curves over number fields*, Rocky Mountain Journal of Mathematics, **46**, No 6 (2016) 1853–1866.
 32. K. James, P. Pollack, *Extremal primes for elliptic curves with complex multiplication*, Journal of Number Theory 172C (2017) 383–391.
 33. Jason Hedetniemi, Kevin James, *On unique realizations of domination chain parameters*, Journal of Combinatorial Mathematics and Combinatorial Computing, **101** (2017) 193–211.
 34. Allison Arnold-Roksandich, Kevin James and Rodney Keaton, *Counting eta-quotients of prime level*, Involve, **11**, no.5, (2018) 827–844.
 35. Agwu, Anthony; Harris, Phillip; James, Kevin; Kannan, Siddarth; Li, Huixi; *Frobenius distributions in short intervals for CM elliptic curves*. J. Number Theory **188** (2018), 263–280
 36. K. James, Luke Giberson, *An Average Asymptotic for the Number of Extremal Primes of Elliptic Curves*, Acta Arithmetica, **183**(2), (2018).

Conference Proceedings (Reviewed).

37. K. James, *An example of an elliptic curve with a positive density of prime quadratic twists which have rank zero*, Proceedings of Topics in Number Theory [Editors: G. Andrews, K. Ono], Kluwer Acad. Publ. (1999), 223–227.

38. J. Brunier, K. James, W. Kohlen, K. Ono, C. Skinner and V. Vatsal, *Central critical values of quadratic twists of modular L-functions and some applications*, Proceedings of Topics in Number Theory [Editors: G. Andrews, K. Ono], Kluwer Acad. Publ. (1999), 115–125.
39. N. Calkin and K. James, *Clemson REU in Computational Number Theory and Combinatorics*, Proceedings of the Conference on Promoting Undergraduate Research in Mathematics, Joseph A. Gallian (editor), American Mathematical Society, 2007, 57–60.
40. K. James *Variants of the Sato-Tate and Lang-Trotter Conjecture*, Proceedings of the workshop “Frobenius Distribution on Curves,” held at Centre International de Rencontres Mathématique, Contemporary Mathematics **663** (2016) 175–184.

PRESENTATIONS.

Plenary Lectures.

1. K. James, *Prime distribution and elliptic curves*, Plenary Lecture given at the UGA Graduate Student Mock AMS Conference, University of Georgia, Athens, GA (07/2010).

Invited Research Lectures.

1. K. James *Variants of the Sato-Tate and Lang-Trotter conjectures*, **Workshop**: Frobenius Distributions on Curves, Centre International de Rencontres Mathématiques, Luminy, Marseille France (2/27/2014).
2. K. James *The distribution of the traces of Frobenius for elliptic curves.*, AMS special session on Automorphic and Modular Forms, 2012 Spring Western Section Meeting, University of Hawaii at Manoa, Honolulu, HI (3/3-4/2012)
3. K. James *Prime distribution and elliptic curves*, AMS special session on Modular Forms, Elliptic Curves, and Related Topics, 2011 Fall Southeastern Section meeting, Wake Forest University, Winston-Salem, NC. (9/24-25/2011).
4. K. James *Sums of Hurwitz Class Numbers*, Senior Seminar, University of North Carolina - Asheville, Asheville, NC (2/3/2010).
5. K. James *Prime distribution and elliptic curves*, Noontime seminar, University of North Carolina - Asheville, Asheville, NC (2/4/2010).
6. K. James *Elliptic Curves and the distribution of primes*, Québec-Vermont Number Theory Seminar, McGill University, Montreal, Québec, Canada (10/30/2008).
7. K. James *The parity of the 5-regular and 13-regular partition functions and related results*, 2008 Southeastern sectional meeting of the Mathematical Association of America, The Citadel, Charleston, SC (3/29/08).

8. K. James *Undergraduate Research in Computational Number Theory and Combinatorics*, Session on Interdisciplinary Research Projects for Undergraduates at the International Conference on Advances in Interdisciplinary Statistics and Combinatorics, University of North Carolina-Greensboro, Greensboro, NC. (10/13/07).
9. K. James *Average Frobenius Distributions of Elliptic Curves*, Number Theory Seminar, University of South Carolina, Columbia SC. (9/20/07).
10. K. James *Some recent averaging results related to the Lang-Trotter conjecture*, AMS special session on Analytic Number Theory and Modular Forms, 2006 Fall Southeastern Section Meeting, Fayetteville, AR. (11/3/2006).
11. N. Calkin and K. James, *Research Experiences for Undergraduates*, Spellman College, Atlanta GA. (2/08/06).
12. K. James, *The Lang-Trotter conjecture on average*. Number Theory seminar, University of South Carolina, Columbia SC. (2/25/05).
13. K. James, *The Lang-Trotter conjecture on average*. Number Theory seminar, Texas A&M University, College Station, TX. (2/17/05).
14. K. James, *Average Frobenius distributions for elliptic curves with rational torsion*. AMS special session on Arithmetic Algebraic Geometry, Joint Mathematics meetings, Atlanta, GA (1/2005).
15. K. James, *Sums of Hurwitz class numbers*. UGA Department of Mathematics VIGRE seminar, University of Georgia, Athens, GA. (2/24/2004).
16. K. James, *Average Frobenius distributions for elliptic curves with non trivial rational torsion subgroups*. AMS special session "Modular Forms, Elliptic Curves, and Related Topics," 2003 Joint Mathematics Meetings, Baltimore, MD (1/15-18/2003).
17. K. James, *The Lang-Trotter Conjecture on average*. AMS special session on Number Theory, 2002 Spring South East Sectional Meeting in Atlanta, GA (3/2002).
18. K. James, *The Lang-Trotter Conjecture for elliptic curves with 3-torsion*. Number Theory seminar, University of Georgia, Athens, GA (2/2002).
19. K. James, *Average Frobenius distributions for elliptic curves with prescribed torsion subgroup*. AMS special session on Number Theory, 2001 Spring Central Section Meeting, Lawrence, KS (3/2001).
20. K. James, *Average Frobenius distributions for elliptic curves with prescribed torsion subgroup*. AMS special session on Analytic Number Theory, 2001 Spring Southeastern Section Meeting, Columbia, SC (3/2001).
21. K. James, *What is number theory good for anyway*. Davidson College, Davidson, North Carolina (2/2000).
22. K. James, *On Selmer groups of quadratic twists of elliptic curves*. AMS special session on automorphic forms, 2000 Joint meetings of the AMS and MAA, Washington DC (1/2000).

23. K. James, *On Selmer groups of quadratic twists of elliptic curves*. New York Number Theory Seminar, City University of New York, New York, New York (5/1999).
24. K. James, *On Selmer groups of quadratic twists of elliptic curves*. Modular forms meeting, Oberwolfach Institute, Oberwolfach, Germany (12/1998).
25. K. James, *How to multiply really fast*. Undergraduate informal mathematics seminar, Bucknell College, Lewisburg, PA (4/1998).
26. K. James, *Density Theorems related to the non-vanishing of L -series of Modular Forms*. AMS special session on Modular Identities and Q -series, Philadelphia, PA (4/1998).
27. K. James, *On quadratic twists of elliptic curves*. AMS special session in Number Theory, University of Montreal, Montreal, Canada (9/1997).
28. K. James, *On quadratic twists of elliptic curves*. AMS special session on number theory, Rutgers University, Newark, NJ (3/1997).
29. K. James, *On quadratic twists of elliptic curves*. University of Missouri, Columbia, MO (11/1996).

Invited Colloquia.

1. K. James *Elliptic Curves and the Distribution of Primes*, Departmental Colloquium, University of Puerto Rico, Mayaguez, Puerto Rico (3/15/2016).
2. K. James, Math Honors Banquet, East Tennessee State University, Johnson City, Tennessee (4/2005).
3. K. James, University of Missouri, Columbia, Missouri (3/2000).
4. K. James, Clemson University, Clemson, South Carolina, (2/2000).
5. K. James, University of North Texas, Denton, Texas (2/2000).
6. K. James, Bucknell University, Lewisburg, Pennsylvania (2/2000).
7. K. James, Western Carolina University, Cullowhee, North Carolina (2/2000).

Contributed Lectures.

1. K. James, *Sums of Hurwitz class numbers*. South East Regional Meeting On Numbers (SERMON), College of Charleston, Charleston, SC (4/17/2004).
2. K. James, *The Lang-Trotter conjecture for elliptic curves with rational 3-torsion*. 7-th meeting of the Canadian Number Theory Association (CNTA), Universite de Montreal, Montreal, Canada (5/22/2002).
3. K. James, *Average Frobenius distributions for elliptic curves with prescribed torsion subgroup*. SERMON, Furman University, Greenville, SC (3/2001).
4. K. James, *On Selmer groups of quadratic twists of elliptic curves*. CNTA-6, Winnipeg, Manitoba, CANADA (6/1999).
5. K. James, *On the irreducibility of Hecke Polynomials*. 12th annual workshop on automorphic forms and related topics, University of Missouri, Columbia, Missouri (2/1998).

6. K. James, *On quadratic twists of elliptic curves*. Algebra Weekend, University of Missouri, Columbia, Missouri (10/1997).
7. K. James, *L-series with non-zero central critical value*. Topics in Number Theory, The Pennsylvania State University, State College, Pennsylvania (7/1997).
8. K. James, *On the non-vanishing of L-series of quadratic twists of modular forms*. West Coast Number Theory Conference, University of Nevada, Las Vegas, NV (12/1996).
9. K. James, *An example of an elliptic curve with an infinite number of rank zero twists*. CNTA-5, Carleton University, Ottawa, Canada (8/1996).
10. K. James, *An example of an elliptic curve with an infinite number of rank zero twists*. NSF-CBMS Regional Conference: Euler Products and Eisenstein Series, Texas Christian University, Fort Worth, TX (5/1996).
11. K. James, *Modular Forms of Half Integral Weight and Waldspurger's Theorem*. SERMON, Wake Forest University, Winston-Salem, NC (3/1996).
12. K. James, *Modular Forms and Elliptic Curves*. SERMON, College of Charleston, Charleston, SC (4/1995).

Seminar Talks.

1. K. James *Power Sums* given in Math Club at Clemson University, Clemson, South Carolina (Fall 2013).
2. N. Calkin, K. James and K. Wash "*How we spent our summer*" or "*The 2012 Clemson REU*" given in the Algebra and Discrete Math seminar at Clemson University, Clemson South Carolina (Fall 2012).
3. K. James *Prime Distribution and Elliptic Curves* given in the Number Theory Seminar at Clemson University, Clemson, SC (Fall 2011).
4. J. Brown, N. Calkin and K. James "*How we spent our summer*" or "*The 2010 Clemson REU*" given in the Algebra and Discrete Math seminar at Clemson University, Clemson South Carolina (Fall 2010).
5. N. Calkin and K. James "*How we spent our summer*" or "*The 2009 Clemson REU*" given in the Algebra and Discrete Math seminar at Clemson University, Clemson South Carolina (Fall 2009).
6. N. Calkin and K. James "*How we spent our summer*" or "*The 2008 Clemson REU*" given in the Algebra and Discrete Math seminar at Clemson University, Clemson South Carolina (Fall 2008).
7. N. Calkin and K. James "*How we spent our summer*" or "*The 2007 Clemson REU*" given in the Algebra and Discrete Math seminar at Clemson University, Clemson South Carolina (Fall 2007).
8. K. James, *Problems related to factoring*, given in the First Year Graduate Seminar at Clemson University, Clemson South Carolina (Spring 2007).

9. N. Calkin and K. James “*How we spent our summer*” or “*The 2006 Clemson REU*” given in the Algebra and Discrete Math seminar at Clemson University, Clemson South Carolina (Fall 2006).
10. K. James, *Recent undergraduate research on elliptic curves* given in the Algebra and Discrete Math seminar at Clemson University, Clemson South Carolina (Fall 2005).
11. K. James, *Research Topics in Number Theory* given in the First Year Graduate Seminar at Clemson University, Clemson South Carolina (Spring 2005).
12. K. James, *The Lang-Trotter conjecture on average*, given in the Algebra and Discrete Math seminar at Clemson University, Clemson South Carolina (Spring 2005).
13. N. Calkin and K. James, “*How we spent our summer*” or “*The 2004 Clemson REU,*” given along with N. Calkin in the Algebra and Discrete Math seminar at Clemson University, Clemson South Carolina (Fall 2004).
14. K. James, *Galois Representations associated to elliptic curves*, given in the Informal Algebra and Number Theory seminar, Clemson University, Clemson South Carolina (Fall 2004).
15. K. James, *Research Topics in Number Theory* given in the First Year Graduate Seminar at Clemson University, Clemson South Carolina (Spring 2004).
16. K. James, *Introduction to Projective Geometry* given in the Informal Algebra and Number Theory seminar at Clemson University, Clemson South Carolina (Fall 2003).
17. K. James, *Research Topics in Number Theory* given in the First Year Graduate Seminar at Clemson University, Clemson South Carolina (Spring 2003)
18. N. Calkin and K. James, *REU in computational number theory and combinatorics* given in the Algebra and Discrete Math seminar at Clemson University, Clemson South Carolina (Fall 2002).
19. K. James, *A new polynomial time primality testing algorithm* given in the Algebra and Discrete Math seminar at Clemson University, Clemson South Carolina (Fall 2002).
20. K. James, *A summary of the congruent number problem* given in the Informal Algebra and Number Theory seminar at Clemson University, Clemson South Carolina (Fall 2002).
21. K. James, *The Lang Trotter conjecture* given in the Informal Algebra and Number Theory seminar at Clemson University, Clemson South Carolina (Spring 2002).
22. K. James, *Research Topics in Number Theory* given in the First Year Graduate Seminar at Clemson University, Clemson South Carolina (Spring 2002)
23. K. James, *Some interesting Class Number Formulas* given in the Informal Algebra and Number Theory seminar at Clemson University, Clemson South Carolina (Fall 2001).

24. K. James, *Recent Progress on the Lang-Trotter conjecture*. given in the Algebra and Discrete Math Seminar at Clemson University, Clemson South Carolina (Fall 2001).
25. K. James, *Explicit Formulae for the group law of elliptic curves over finite fields II* given in the Informal Algebra and Number Theory seminar at Clemson University, Clemson South Carolina (Spring 2001).
26. K. James, *Explicit Formulae for the group law of elliptic curves over finite fields I* given in the Informal Algebra and Number Theory seminar at Clemson University, Clemson South Carolina (Spring 2001).
27. K. James, *Research Topics in Number Theory* given in the First Year Graduate Seminar at Clemson University, Clemson South Carolina (Spring 2001)
28. K. James, *An introduction to elliptic curves II* given in the Informal Algebra and Number Theory seminar at Clemson University, Clemson South Carolina (Spring 2000).
29. K. James, *An introduction to elliptic curves I* given in the Informal Algebra and Number Theory seminar at Clemson University, Clemson South Carolina (Spring 2000).
30. K. James, *Research Topics in Number Theory* given in the First Year Graduate Seminar at Clemson University, Clemson South Carolina (Spring 2000)
31. K. James, *Nonvanishing Theorems for elliptic curves II.*, given in the Algebra and Discrete Math Seminar at Clemson University, Clemson South Carolina (Fall 2000).
32. K. James, *Nonvanishing Theorems for elliptic curves I.*, given in the Algebra and Discrete Math Seminar at Clemson University, Clemson South Carolina (Fall 2000).
33. K. James, *A computational approach to Frobenius distributions* given in the Number Theory Seminar at The Pennsylvania State University University Park, Pennsylvania (Fall 1999).
34. K. James, *Selmer groups of quadratic twists of elliptic curves II* given in the Informal Number Theory Seminar at The Pennsylvania State University University Park, Pennsylvania (Fall 1998).
35. K. James, *Selmer groups of quadratic twists of elliptic curves I* given in the Informal Number Theory Seminar at The Pennsylvania State University University Park, Pennsylvania (Fall 1998).
36. K. James, *Non-vanishing of modular L -series in families of quadratic twists* given in the Number Theory Seminar at The Pennsylvania State University University Park, Pennsylvania (Fall 1997).
37. K. James, *Apéry's proof that $\zeta(3)$ is irrational* given in the Informal Number Theory Seminar at The Pennsylvania State University University Park, Pennsylvania (Fall 1997).

38. K. James, *On the non-vanishing of L -series attached to modular forms of high weight* given in the Informal Number Theory Seminar at The Pennsylvania State University University Park, Pennsylvania (Fall 1997).
39. K. James, *On the non-vanishing of modular L -series at level one* given in the Informal Number Theory Seminar at The Pennsylvania State University University Park, Pennsylvania (Fall 1997).
40. K. James, *On the irreducibility of Hecke polynomials* given in the Informal Number Theory Seminar at The Pennsylvania State University University Park, Pennsylvania (Fall 1997).
41. K. James, *On the reduction of elliptic curves* given in the Arithmetic Geometry Seminar at University of Georgia Athens, Georgia (Spring 1996).
42. K. James, *An example of an elliptic curve with a positive density of prime quadratic twists having rank zero* given in the Number Theory Seminar at University of Georgia Athens, Georgia (Spring 1996).
43. I gave two lectures on modular forms and one on using quadratic forms to build modular forms in the Graduate Elliptic Curves and Modular Forms Class at University of Georgia, Athens, Georgia (Spring 1996).
44. K. James, *Elliptic curves, modular forms and the congruent number problem* given in the Number Theory Seminar at University of Georgia Athens Georgia (Winter 1995).
45. I gave various talks on Modular Forms and Elliptic Curves. in the weekly Student Number Theory Seminar at University of Georgia, Athens, Georgia (1994-1997). I was an organizer of this seminar from 1994 to 1996.

HONORS AND AWARDS.

Invited participant in *Workshop: Frobenius distributions on curves* at Centre International de Rencontres Mathématiques, Marseille, France, (24-28 February 2014).

Invited to give the plenary address at a Mock AMS conference organized by the University of Georgia Department of Mathematics and to represent the success of UGA's graduate mathematics program. I was also invited to lead a discussion on pursuing a career in mathematics. (2010).

Invited and funded to participate in an AMS-NSA sponsored Workshop on "Promoting Undergraduate Research in Mathematics".

Nominated and accepted for participation in the 2004 National Effective Teaching Institute (2004).

Received the Robert C. Anderson memorial award for excellence in research from University of Georgia (2000).

Invited to give a talk at a conference on modular forms at the Oberwolfach Institute in Germany (1998).

Received Franklin College of Arts and Sciences Distinguished Doctoral Research Assistantship at the University of Georgia (1996-1997).

SPONSORED RESEARCH.

- Southeastern Number Theory Meetings*, NSF, CoPI, \$ 15,051, (\$ 7,525) 8/01/2019 - 7/31/2020.
- Southeastern Number Theory Meetings*, NSA, CoPI, \$ 15,167, (\$7,583) 8/1/2019 - 8/1/2020.
- Number Theory Meetings in the Southeast*, NSF, CoPI, \$ 22,233, (\$ 7,337) 8/01/2017 - 7/31/2018.
- RTG: Coding Theory, Cryptography and Number Theory*, NSF, CoPI, \$ 2,126,969, (\$425,394) 8/01/2016-7/31/2021.
- Southeastern Number Theory Meetings*, NSF, CoPI, \$ 13,615, (\$ 4493) 8/01/2015 - 7/31/2016.
- Southeastern Number Theory Meetings*, NSA, PI, \$ 16,300, (\$5,542) 8/1/2015 - 8/1/2016.
- PANTS and SERMON meetings in the Southeast*, NSA, PI, \$ 15,926, (\$ 5,415.86) 8/1/2013 - 8/1/2014.
- PANTS and SERMON meetings in the Southeast*, NSF, CoPI, \$ 12,696, , (\$ 4,189.68) 8/1/2013 - 7/31/2014.
- Southeastern Number Theory Meetings*, NSF, CoPI, \$ 12,012, (\$ 2,402) 8/01/2012 - 7/31/2013.
- Collaborative Research: Research Experience for Undergraduates: Algebraic geometry, combinatorics, and number theory*, NSF, CoPI, \$ 240,789, (\$ 72,236) 5/31/2012 - 5/30/2014.
- Palmetto Number Theory Series/ SouthEast Regional Meeting on Numbers*, NSA, CoPI, \$ 14,483, (\$ 7,242) 8/1/2011 - 7/31/2012.
- Palmetto Number Theory Series/ SouthEast Regional Meeting on Numbers*, NSF, CoPI, \$ 11,223 , (\$ 3,704) 8/1/2011 - 7/31/2012.
- Acquisition of Large-Memory, Many-Core Compute Node for Mathematical Science Research*, NSF, CoPI, \$ 132,196, (\$ 10,576) 7/1/2010 - 6/30/2011.
- Palmetto Number Theory Series*, NSF, CoPI, \$ 13,423 , (\$ 2685) 8/1/2010 - 7/31/2011.
- Palmetto Number Theory Series*, NSF, CoPI, \$ 11,096 , (\$ 3662) 8/1/2009 - 7/31/2010.
- Palmetto Number Theory Series*, NSA, CoPI, \$ 13,057 , (\$ 4352) 8/1/2009 - 7/31/2010.
- Palmetto Number Theory Series*, NSF, CoPI, \$ 7,950, (\$ 1590) 8/1/2008 - 7/31/2009.
- Palmetto Number Theory Series* , NSF, CoPI, \$ 8,250, (\$ 1650) 8/1/2007 - 7/31/2008.
- South Carolina Number Theory Meeting - Palmetto Number Theory Series (PANTS)*, NSA, CoPI, \$ 15,000, (\$ 3000), 9/1/2007 - 8/31/2008.

REU Site: Computation, Combinatorics and Number Theory, NSF, PI, \$ 559,816 (\$ 279,908), 4/1/2006 - 3/31/2011.

Supplement to 2003 REU in Computational Number Theory and Combinatorics, NSF, PI, \$ 28,389 (\$ 14,195), 5/1/2006 - 4/30/2007.

Acquisition of Parallel Computing Cluster for Large-Scale Computational Problems in the Mathematical Sciences, NSF, Co-PI, \$ 140,000 (\$ 12,600), 10/01/2005 - 10/01/2006.

2003 REU in Computational Number Theory and Combinatorics, NSF, PI, \$ 245,556 (\$ 122,778), 5/1/2003 - 4/30/2006.

REU in Computational Number Theory and Combinatorics, NSF, PI, \$ 64,109 (\$ 32,055), 6/01/2002 - 5/31/2003.

Modular Forms and Related Topics, NSF, PI, \$ 51,993 (\$ 51,993), 8/15/2000 - 7/31/2003.

OTHER SPONSORED ACTIVITY.

Travel Grant, National Science Foundation, \$1,000 (1998).

Travel support, National Security Agency (2006).

GRADUATE STUDENT ADVISING.

PhD Graduates

1. Bryan Faulkner, “Estimates related to the arithmetic of elliptic curves,” (August 2007).
2. Ethan Smith, “On Elliptic Curves, Modular Forms, and the Distribution of Primes” (May 2009).
3. Jeff Beyerl, “On factoring Hecke eigenforms, nearly holomorphic modular forms, and applications to L-values,” (May 2012), co-advised with Hui Xue.
4. Catherine Trentacoste, “Modular Forms, Elliptic Curves and Drinfeld Modules,” (May 2012), co-advised with Hui Xue.
5. Jason Hedetniemi, “Problems in Domination and Graph Products,” (May 2016), co-advised with Doug Rall (Furman University).
6. Luke Giberson “Average Frobenius Distributions for Elliptic Curves: Extremal Primes and Koblitz’s Conjecture,” (May 2017).

Masters Graduates

1. Travieso Gonzalez, “Exploring the partition function,” (May 2003).
2. Ethan Smith, “Bases of modular forms,” (May 2005).
3. Matthew J. Lafferty, “Building squares of ideals in number fields” (May 2008).
4. Jeff Beyerl, “Binary Quadratic Forms over $\mathbb{F}[T]$ and Principal Ideal Domains,” (May 2009), co-advised with Hui Xue.
5. Catherine Trentacoste, “Construction of a dimension two rank one Drinfeld Module,” (May 2009), co-advised with Hui Xue.
6. Rodney Keaton, “Explicit Level Lowering for 2-Dimensional Modular Galois Representations,” (December 2010), co-advised with Jim Brown.
7. Jason Hedetniemi, “Champion Primes For Elliptic Curvers,” (May 2012), co-advised with Hui Xue.
8. Liem Nguyen, “Arithmetic Properties of k -regular Partition Functions,” (May 2013), co-advised with Hui Xue.
9. Luke Giberson, “Average Frobenius distributions for elliptic curves with prescribed torsion subgroup,” (May 2014).
10. Alan Hahn “Some data collection and analysis of the distribution of Champion Primes for non-CM elliptic curves” (August 2018).
11. Candace Barnes “The Hecke algebra and Maeda’s conjecture” (May 2019).

Current Graduate Advising

1. Soumendra Ganguly (MS, August 2019).
2. Candace Barnes (PhD, May 2022)

TEACHING.

Clemson University (7/00 - Present)

Math 1020 (Business Calculus)	Su2011,Su2012,Su2013,Su2014
Math 1060 (Calculus)	F2000(2),F2001,F2004
Math 119 (Discrete Math.)	S2001,F2002,F2003,F2005
Math 129 (Discrete Math.)	S2005,S2007
Math 2060 (Multivariable Calculus)	S2011,F2011,S2012
Math 3110 (Ugrad Linear Algebra)	S2002,S2004,S2006,F2006,F2007, S2008,F2009,S2010,F2010,S2013, F2015, S2018
Math 3110H (Ugrad Linear Algebra)	F2008,S2009
Math 3190 (Intro to Proof)	F2013(2),S2015
Math 4100 (Number Theory)	S2003,S2004,S2005,S2011
Math 4120 (Ugrad Abstract Algebra)	F2008,F2009,S2010,F2010,F2012, F2014,S2016,F2016
Math 4550 (Differential Geometry)	S2014
Math 8510 (Abstract Algebra)	S2006,F2011,F2017
Math 8520 (Abstract Algebra)	F2006,S2012,S2018
Math 8530 (Linear Algebra)	F2001,S2009,Su2011
Math 9520 (Analytic Number Theory)	S2013,S2017
Math 9850 (Algebraic Curves)	Fall 2019
Math 9850 (Graduate Algebraic Number Theory)	Spr 2008
Math 9850 (Algebraic Number Theory)	Spr 2003
Math 9850 (Analytic Number Theory)	Spr 2007
Math 9850 (Elliptic Curves & Modular Forms)	Fall 2004
Math 9850 (Number Theory)	Fall 2002
Math 9850 (Number Theory)	Fall 2005
Math 9850 (Graduate Number Theory)	Fall 2007
Math 9850 (Primes of the form $x^2 + ny^2$)	Fall 2003

The Pennsylvania State University (8/97 - 5/2000)

MATH 140 (Calculus)	Fall 1997
MATH 311 (Intro. to higher math)	Spring 1998
MATH 467 (Factoring and Primality Testing)	Fall 1998
MATH 597B (Grad. class in modular forms)	Fall 1998
MATH 251H (Honors Ordinary Diff. Eq.)	Spring 1999
MATH 436 (Linear Algebra)	Fall 1999
MATH 465 (Undergrad. Number Theory)	Spring 2000
MATH 251.101 (1 hr. course on PDE's and Fourier Series)	Spring 2000

University of Georgia (6/91 - 6/97)

MATH 116 (Precalculus)	Fall 1992
MATH 116	Winter 1993
MATH 116	Fall 1993
MATH 105 (Intro. to Math)	Winter 1994
MATH 106 (Intro. to Math)	Winter 1995
MATH 106	Fall 1995

UNIVERSITY AND PUBLIC SERVICE.

Continuing Education

- Directed along with Felice Manganiello an NSF supported Research Experience for Undergraduates. (Summer 2017).
- Directed along with Jim Brown, Neil Calkin and Mohammed Tesemma an NSF supported Research Experience for Undergraduates. (Summer 2013).
- Directed along with Jim Brown, Neil Calkin and Mohammed Tesemma an NSF supported Research Experience for Undergraduates. (Summer 2012).
- Co-organized with Jim Brown and Hui Xue, the fall 2011 meeting of the Palmetto Number Theory Series (PANTS).
- Co-organized with Jim Brown and Hui Xue, the spring 2011 meeting of the Palmetto Number Theory Series (PANTS).
- Directed along with Neil Calkin an NSF supported Research Experience for Undergraduates. (Summer 2010).
- Co-organized with Jim Brown, Hiren Maharaj and Hui Xue, the spring 2010 meeting of the Palmetto Number Theory Series (PANTS).
- Directed along with Neil Calkin an NSF supported Research Experience for Undergraduates. (Summer 2009).
- Co-organized with Jim Brown, Hiren Maharaj and Hui Xue, the spring 2009 meeting of the Palmetto Number Theory Series (PANTS).
- Directed along with Neil Calkin an NSF supported Research Experience for Undergraduates. (Summer 2008).
- Organized the Spring 2008 Southeastern Regional Meeting on Numbers (April 2008).
- Directed along with Neil Calkin an NSF supported Research Experience for Undergraduates. (Summer 2007).
- Co-organized with Hiren Maharaj and Hui Xue, the spring 2007 meeting of the Palmetto Number Theory Series (PANTS).
- Directed along with Neil Calkin an NSF supported Research Experience for Undergraduates. (Summer 2006).
- Directed along with Neil Calkin an NSF supported Research Experience for Undergraduates. (Summer 2005).

Directed along with Neil Calkin an NSF supported Research Experience for Undergraduates. (Summer 2004).

Attended the Florida-Georgia Louis Stokes Alliance For Minority Participation in Science, Engineering and Mathematics Career Expo in order to recruit potential graduate students for our department and participants for our REU from under represented areas. (January 2004).

Directed along with Neil Calkin an NSF supported Research Experience for Undergraduates. (Summer 2003).

Hosted a roundtable discussion on R.E.U.'s at the at the Spring 2003 joint meeting of the southeastern section of the MAA and the Atlantic section of SIAM held at Clemson University, Clemson SC. (March 2003).

Served as a judge of graduate student research posters at Clemson University's Forum on Research (April 2003).

Directed along with Neil Calkin an NSF supported Research Experience for Undergraduates. (Summer 2002).

Co-organizer along with Neil Calkin of the Spring 2002 Southeastern Regional Meeting on Numbers (March 2002).

Co-organizer along with Neil Calkin of the Informal Algebra and Number Theory seminar which meets weekly in our department (1/2001 - present).

Co-organized, along with W. Li a special session *Automorphic forms and arithmetic geometry* at the Fall 1998 Eastern sectional meeting of the American Mathematical Society (October 1998).

Participated in the Upward Bound Math and Science Center's 1998 Career Fair at The Pennsylvania State University, University Park Pennsylvania (July 1998).

Co-organized a mathematics workshop along with Ken Ono at the 1998 National Youth Science Camp at Camp Pocahontas West Virginia (July 1998).

Chaired a session of lectures at *Algebra Weekend* at University of Missouri, Columbia, Missouri (October 1997).

Chaired two sessions of lectures at *Topics in Number Theory* at Pennsylvania State University, University Park, Pennsylvania (July 1997).

Organized a weekly graduate student number theory seminar (1994-1996).

Committees

University	Member	Graduate Council	2016-present
College	Member	COS Curriculum Committee	2016-present
College	Member	Selection committee, ACC Meeting of the Minds	2006.
Department	Member	Graduate Committee	2002-present
Department	Member	Undergraduate Committee	2001-2002

Other Service

Served on NSF REU panel (1/2010).

Served on NSF REU panel (11/2008).

Referee for several journals including *London Mathematical Society Journal of Computation and Mathematics*, *Involve*, *Advances in Mathematics*, *International Journal of Number Theory*, *Transactions of the American Mathematical Society*, *Acta Arithmetica*, *Journal of Number Theory*, *Ramanujan Journal*, *Topics in Number Theory* conference proceedings and *International Journal of Mathematics and the Mathematical Sciences*.

Undergraduate curriculum adviser for students majoring in Mathematical Sciences (Fall 2005- present).

Reviewed a potential textbook for McGraw Hill (11/2005).

Usher, United Assembly of God, Seneca SC (2001-2008).

Board of Directors, United Assembly of God, Seneca SC (Feb. 2002 - June 2010).

Elder, United Assembly of God, Seneca SC (June 2010 - present).