

CURRICULUM VITA

James A. Sellers, Ph.D.
Professor and Director, Undergraduate Mathematics
Department of Mathematics
The Pennsylvania State University
104 McAllister Building
University Park, PA 16802

Phone (814) 865-7528
Fax (814) 863-9667
E-mail sellersj@math.psu.edu
URL <http://www.math.psu.edu/sellersj>

PERSONAL INFORMATION

Date of Birth September 1, 1965
Place of Birth San Antonio, TX

EDUCATION

Bachelor of Science Mathematics, University of Texas at San Antonio,
San Antonio, TX, May 1987

Doctor of Philosophy Mathematics, The Pennsylvania State University,
University Park, PA, August 1992
Thesis: A Generalization of the Partition Function
Research Advisor: Dr. David M. Bressoud

PROFESSIONAL EXPERIENCE

2001-present Director, Undergraduate Mathematics, The Pennsylvania State
University, University Park, PA

1998-2001 Associate Professor, Mathematics, Science and Mathematics
Department, Cedarville University, Cedarville, OH

1992-1998 Assistant Professor, Mathematics, Science and Mathematics
Department, Cedarville University, Cedarville, OH

1999 (Summer) Editor/Writer, Saxon Publishers, Norman, OK

1997 (Summer) Researcher, Institute for Defense Analysis, La Jolla, CA

1994, 1995, 2001 Mathematics Instructor, San Antonio Prefreshman Engineering
Program (PREP), The University of Texas at San Antonio, San
Antonio, TX

1987–1992 Graduate Student and Teaching Assistant, The Pennsylvania State University, University Park, PA

1987 Actuary (Automobile), United Services Automobile Association (USAA), San Antonio, TX

PROFESSIONAL SOCIETIES–MEMBERSHIPS

Mathematical Association of America
The Fibonacci Association

NOTABLE EVENTS (AWARDS, ETC.)

- Tenured at Cedarville University, 1998
- Cedarville Faculty Scholar of the Year Award, April 1999
- Mary Lister McCammon Award for Distinguished Undergraduate Teaching from the Penn State Department of Mathematics, February 2005
- MAA Allegheny Mountain Section Award for Distinguished Teaching, April 2006
- Began Penn State’s Center for Undergraduate Research in Mathematics (CURM), 2007 (and currently serve as CURM’s director)
- Teresa Cohen Mathematics Service Award from the Penn State Department of Mathematics, April 2007
- Visiting Fellow at the Isaac Newton Institute’s Combinatorics and Statistical Mechanics Workshops, January – June, 2008
- Elected Governor of the MAA Allegheny Mountain Section, 2008 (term to be served 2008–2011)
- MAA Allegheny Mountain Section Mentoring Award, April 2009

GRANTS

- Received Faculty Incentive Grant from Cedarville University’s Technology Planning Committee for the purpose of developing course materials for precalculus to be used by students via Netscape and the network
- Obtained grant funding (with Diane Henderson) for Penn State’s Center for Undergraduate Research in Mathematics and Penn State’s Conference on Undergraduate Research in Mathematics held in November 2007. Funds were received from Penn State’s Women in Mathematics Program, Eberly College of Science, and Department of Mathematics, as well as from the MAA through NSF grant DMS-0241090.
- Obtained grant funding (with Ae Ja Yee) for Combinatory Analysis 2008: Partitions, q-series, and Applications held in December 2008. Funds were received from Penn State’s Eberly College of Science, Department of Mathematics, as well as from the Number Theory Foundation, the National Security Agency (NSA) and the National Science Foundation (NSF) grant DMS-0758565.
- Obtained grant funding (with Diane Henderson) for Penn State’s Conference on

Undergraduate Research in Mathematics held in November 2009. Funds were received from Penn State's Eberly College of Science and Department of Mathematics, as well as from the NSA, NSF, and the MAA through NSF Grant DMS-0846477.

UNIVERSITY TEACHING ACTIVITIES

THE PENNSYLVANIA STATE UNIVERSITY (1987–1992)

MATH 017	Finite Mathematics
MATH 035	General View of Mathematics
MATH 110	Techniques of Calculus I
MATH 140	Calculus with Analytic Geometry I
MATH 140A	Calculus, Analytic Geometry, Algebra, and Trigonometry
MATH 141	Calculus with Analytic Geometry II
MATH 200	Number Systems
MATH 220	Matrices

– Designed calculus lessons using the TI–81 graphics calculator

CEDARVILLE UNIVERSITY (1992–2001)

GMTH 180	Introduction to Mathematics*
GMTH 185	Precalculus
HON 312	A Philosophical View of Mathematics
MATH 281	Analytic Geometry and Calculus I*
MATH 282	Analytic Geometry and Calculus II*
MATH 283	Analytic Geometry and Calculus III
MATH 303	Logic and Methods of Proof*
MATH 355	Discrete Mathematics: Graph Theory
MATH 356	Discrete Mathematics: Combinatorics*
MATH 360	Number Theory*
MATH 387	Differential Equations
MATH 394	Linear Algebra
MATH 480	Special Topics–Theory of Prime Numbers

– Designed calculus lessons using Maple, Mathematica, and Microcalc software

– Designed writing and research projects for courses marked *

THE PENNSYLVANIA STATE UNIVERSITY (2001–PRESENT)

MATH 036	Insights into Mathematics*
MATH 110	Techniques of Calculus I (informally called Business Calculus) ⁺
MATH 140	Calculus with Analytic Geometry I
MATH 310	Elementary Combinatorics*
MATH 465	Number Theory I*
MATH 470	Algebra for Teachers
PSU 016	First Year Seminar–Mathematics*

- Designed writing and research projects for courses marked *
- Designed online homework sets for courses marked +

JOURNAL ARTICLES

(Undergraduate co-authors highlighted in *bold italic* font)

1. Sellers, J. A., Congruences Involving Generalized Frobenius Partitions, *International Journal of Mathematics and Mathematical Sciences*, **16**, no. 2 (1993), 413–415
2. Sellers, J. A., Congruences Involving F-Partition Functions, *International Journal of Mathematics and Mathematical Sciences*, **17**, no. 1 (1994), 187–188
3. Sellers, J. A., Egyptian Fractions and Perfect Numbers, *The Mathematics Teacher*, **87**, no. 1 (January 1994), 60
4. Sellers, J. A., New Congruences for Generalized Frobenius Partitions with 2 or 3 Colors, *Discrete Mathematics*, **131** (1994), 367–374
5. Hirschhorn, M. D. and Sellers, J. A., Two Congruences Involving 4-cores, *Electronic Journal of Combinatorics*, **3**, no. 2 (1996), Article R10
6. Sellers, J. A., Recurrences For 2-Colored and 3-Colored F-Partitions, *Discrete Mathematics*, **156** (1996), 303–310
7. Hirschhorn, M. D. and Sellers, J. A., Some Amazing Facts About 4-cores, *Journal of Number Theory*, **60**, no. 1 (1996), 51–69
8. Hirschhorn, M. D. and Sellers, J. A., On Representations of a Number As A Sum of Three Triangles, *Acta Arithmetica*, **77** (1996), 289–301
9. Sellers, J. A., Generating Interest in Generating Functions, *PRIMUS (Problems, Resources, and Issues in Mathematics Undergraduate Studies)*, **VII**, no. 2 (1997), 175–182
10. Sellers, J. A., On Infinitely Many Odd Nonunitary Abundant Numbers, *Mathematics and Computer Education*, **31**, no. 3 (1997), 241–243
11. Sellers, J. A., Solution to Problem 336: A Trigonometric Characterization of Equilateral Triangles, *Mathematics and Computer Education*, **32**, no. 1 (1998), 84–85
12. Hirschhorn, M. D. and Sellers, J. A., On Representations of a Number as a Sum of Three Squares, *Discrete Mathematics*, **199** (1999), 85–101

13. Kolitsch, L. W. and Sellers, J. A., Elementary Proofs of Infinitely Many Congruences for 8–Cores, *Ramanujan Journal*, **3**, no. 2 (1999), 221–226
14. Braithwaite, E. and Sellers, J. A., Geometric Right Triangles, *Mathematics and Computer Education*, **33**, no. 2 (1999), 154–160
15. Hirschhorn, M. D. and Sellers, J. A., Some Parity Results for 16–Cores, *Ramanujan Journal*, **3**, no. 3 (1999), 281–296
16. ***Dolph, L., Reynolds, A.*** and Sellers, J. A., Congruences for Restricted m –ary Partition Functions, *Discrete Mathematics*, **219**, no. 1–3 (2000), 265–269
17. Frey, D. and Sellers, J. A., Jacobsthal Numbers and Parity of Alternating Sign Matrices, *Journal of Integer Sequences*, **3**, no. 2 (2000), Article 00.2.3
18. Hirschhorn, M. D. and Sellers, J. A., Some Relations for Partitions into Four Squares, in the Proceedings of the International Workshop on Special Functions, Asymptotics, Harmonic Analysis, and Mathematical Physics, City University of Hong Kong, June 21–25, 1999, published November 2000 by World Scientific, 118–124
19. Rødseth, Ø. and Sellers, J. A., On m –ary Partition Function Congruences: A Fresh Look at a Past Problem, *Journal of Number Theory*, **87**, no. 2 (2001), 270–281
20. Frey, D. and Sellers, J. A., Generalizing Bailey’s Generalization of the Catalan Numbers, *Fibonacci Quarterly*, **39**, no. 2 (May 2001), 142–148
21. Frey, D. and Sellers, J. A., On Powers of 2 Dividing the Values of Certain Plane Partition Functions, *Journal of Integer Sequences*, **4**, no. 1 (2001), Article 01.1.8
22. Eichhorn, D. and Sellers, J. A., Computational Proofs of Congruences for 2–Colored Frobenius Partitions, *International Journal of Mathematics and Mathematical Sciences*, **29**, no. 6 (2002), 333–340
23. Rødseth, Ø. and Sellers, J. A., Binary Partitions Revisited, *Journal of Combinatorial Theory, Series A*, **98** (2002), 33–45
24. Sellers, J. A., Domino Tilings and Products of Fibonacci and Pell Numbers, *Journal of Integer Sequences*, **5**, no. 1 (2002), Article 02.1.2
25. Sellers, J. A., Beyond Mere Convergence, *PRIMUS (Problems, Resources, and Issues in Mathematics Undergraduate Studies)*, **XII**, no. 2 (2002), 157–164
26. Sellers, J.A. and Williams, H. C., On the Infinitude of Composite NSW Numbers, *Fibonacci Quarterly*, **40**, no. 3 (2002), 253–254

27. **Frank, D.**, Savage, C. D. and Sellers, J. A., On the Number of Graphical Forest Partitions, *Ars Combinatoria*, **65** (2002), 33–37
28. Sellers, J. A., Extending a Recent Result of Santos on Partitions into Odd Parts, *INTEGERS*, **3** (2003), Article A4
29. Sellers, J. A., Parity Results for p -Regular Partitions with Distinct Parts, *Ars Combinatoria*, **69** (2003), 143–146
30. Benjamin, A., **Neer, J.**, Otero, D. and Sellers, J. A., A Probabilistic View of Certain Weighted Fibonacci Sums, *Fibonacci Quarterly*, **41**, no. 4 (2003), 360–364
31. Frey, D. and Sellers, J. A., Prime Power Divisors of the Number of $n \times n$ Alternating Sign Matrices, *Ars Combinatoria*, **71** (2004), 139–147
32. Sellers, J. A., Infinitely Many Composite NSW Numbers: An Inductive Proof, *Missouri Journal of Mathematical Sciences*, **16**, no. 1 (2004), 4 pages
33. **Courtright, K. M.** and Sellers, J. A., Arithmetic Properties for Hyper m -ary Partitions, *INTEGERS*, **4** (2004), Article A6
34. Sellers, J. A., Partitions Excluding Specific Polygonal Numbers as Parts, *Journal of Integer Sequences*, **7**, no. 2 (2004), Article 04.2.4
35. Sellers, J. A., Sills, D. V., and Mullen, G. L., Bijections and Congruences for Generalizations of Partition Identities of Euler and Guy, *Electronic Journal of Combinatorics*, **11**, no. 1 (2004), Article R43
36. Hirschhorn, M. D. and Sellers, J. A., A Different View of m -ary Partitions, *Australasian Journal of Combinatorics*, **30** (2004), 193–196
37. Hirschhorn, M. D. and Sellers, J. A., Partitions into Three Triangular Numbers, *Australasian Journal of Combinatorics*, **30** (2004), 307–318
38. Hirschhorn, M. D. and Sellers, J. A., On a Problem of Lehmer on Partitions into Squares, *Ramanujan Journal*, **8**, no. 3 (2004), 279–288
39. Rødseth, Ø., Sellers, J. A., and **Courtright, K. M.**, Arithmetic Properties of Non-Squashing Partitions into Distinct Parts, *Annals of Combinatorics*, **8**, no. 3 (2004), 347–353
40. Sloane, N. J. A. and Sellers, J. A., On Non-Squashing Partitions, *Discrete Mathematics*, **294** (2005), 259–274

41. Hirschhorn, M. D. and Sellers, J. A., Arithmetic Relations for Overpartitions, *Journal of Combinatorial Mathematics and Combinatorial Computing (JCMCC)*, **53** (2005), 65–73
42. Hirschhorn, M. D. and Sellers, J. A., Further Results for Partitions into Four Squares of Equal Parity, *Ars Combinatoria*, **76** (2005), 33–45
43. Rødseth, Ø. and Sellers, J. A., On m -ary Overpartitions, *Annals of Combinatorics*, **9** (2005), 345–353
44. Hirschhorn, M. D. and Sellers, J. A., An Infinite Family of Overpartition Congruences Modulo 12, *INTEGERS*, **5** (2005), Article A20
45. Cooper, S., Hirschhorn, M. D., and Sellers, J. A., Partitions into Four Squares, *Proceedings of the Jangjeon Mathematical Society*, **8** (2005), no. 1, 73–94
46. Rødseth, Ø. and Sellers, J. A., On a Restricted m -Non-Squashing Partition Function, *Journal of Integer Sequences*, **8**, no. 5 (2005), Article 05.5.4
47. Frey, D. and Sellers, J. A., Arithmetic Properties for a Certain Family of Knot Diagrams, *Ars Combinatoria*, **77** (2005), 65–73
48. Rødseth, Ø. and Sellers, J. A., Improving Calculations of the Number of Distinct Alignments of Two Strings, *Journal of Quantitative Linguistics*, **13**, no. 1 (2006), 45–55
49. Rødseth, Ø. and Sellers, J. A., Partitions with Parts in a Finite Set, *International Journal of Number Theory*, **2**, no. 3 (2006), 455–468
50. Hirschhorn, M. D. and Sellers, J. A., Arithmetic Properties of Overpartitions into Odd Parts, *Annals of Combinatorics* **10**, no. 3 (2006), 353–367
51. Andrews, G. E. and Sellers, J. A., On Sloane's Generalization of Non-Squashing Stacks of Boxes, *Discrete Mathematics* **307**, no. 9–10 (2007), 1185–1190
52. Hirschhorn, M. D. and Sellers, J. A., On Recent Congruence Results of Andrews and Paule for Broken k -Diamonds, *Bulletin of the Australian Mathematical Society* **75** (2007), 121–126
53. Sellers, J. A., Observations on the Parity of the Total Number of Parts in Odd-Part Partitions, *INTEGERS* **7** (2007), Article A35
54. Hopkins, B. and Sellers, J. A., Exact Enumeration of Garden of Eden Partitions, *INTEGERS* **7**, no. 2 (2007), Article A19

55. Benjamin, A. T., Quinn, J. J., Sellers, J. A., and Shattuck, M. A., Paint it Black – A Combinatorial Yawp, *Mathematics Magazine* **81**, no. 1 (2008), 45–50
56. Downey, L., Ong, B. W., and Sellers, J. A., Beyond the Basel Problem: Sums of Reciprocals of Figurate Numbers, *College Mathematics Journal* **39**, no. 5 (2008), 390–394
57. Benjamin, A. T., **Plott, S.**, and Sellers, J. A., Tiling Proofs of Recent Sum Identities Involving Pell Numbers, *Annals of Combinatorics* **12** (2008), 271–278
58. Hirschhorn, M. D. and Sellers, J. A., Enumerating Unigraphical Partitions, *Journal of Integer Sequences* **11**, no. 4 (2008), Article 08.4.6
59. Little, D. P. and Sellers, J. A., New Proofs of Identities of Lebesgue and Göllnitz via Tilings, *Journal of Combinatorial Theory, Series A* **116** (2009), 223–231
60. Sellers, J. A., A Different Look at Albrecht and White's Path Counting in Grids, *Australian Mathematical Society Gazette* **36**, no. 1 (2009), 47–49
61. Rødseth, Ø., Sellers, J. A., and Tverberg, H., Enumeration of the Degree Sequences of Non-Separable Graphs and Connected Graphs, *European Journal of Combinatorics* **30** (2009), 1301–1317
62. **Keister, D.**, Sellers, J. A., and **Vary, R.**, Some Arithmetic Properties of Overpartition k -tuples, *INTEGERS* **9** (2009), Article A17
63. Hirschhorn, M. D. and Sellers, J. A., Elementary Proofs of Various Facts about 3-cores, *Bulletin of the Australian Mathematical Society* **79** (2009), 507–512
64. Rødseth, Ø. and Sellers, J. A., Congruences Modulo High Powers of 2 for Sloane's Box Stacking Function, *Australasian Journal of Combinatorics* **44** (2009), 255–263
65. Hirschhorn, M. D., Rødseth, Ø., and Sellers, J. A., Infinite Families of Divisibility Properties Modulo 4 for Non-Squashing Partitions into Distinct Parts, *INTEGERS* **9** (2009), Article A33
66. Hou, X., Mullen, G. L., Sellers, J. A., and Yucas, J. L., Reversed Dickson Polynomials Over Finite Fields, *Finite Fields and Their Applications* **15**, no. 6 (2009), 748–773
67. Briggs, K. S., Little, D. P., and Sellers, J. A., Combinatorial Proofs of Various q -Pell Identities via Tilings, to appear in *Annals of Combinatorics*
68. Andrews, G. E., Hirschhorn, M. D., and Sellers, J. A., Arithmetic Properties of Partitions with Even Parts Distinct, to appear in *Ramanujan Journal*

69. Hirschhorn, M. D. and Sellers, J. A., Elementary Proofs of Parity Results for 5-Regular Partitions, to appear in Bulletin of the Australian Mathematical Society
70. Little, D. P. and Sellers, J. A., A Tiling Approach to Eight Identities of Rogers, to appear in European Journal of Combinatorics
71. Hirschhorn, M. D. and Sellers, J. A., Arithmetic Properties of Partitions with Odd Parts Distinct, submitted to Ramanujan Journal, July 2009
72. Sellers, J. A., Enumeration Results for Line-Hamiltonian Degree Sequences for Multigraphs, in progress

PRESENTATIONS

1. Congruences for Generalized Frobenius Partitions, Rademacher Centenary Conference, The Pennsylvania State University, July 21–25, 1992
2. Congruences Relating the Frobenius Partition Functions ϕ_m and $c\phi_m$, Joint Mathematics Meetings of the American Mathematical Society and the Mathematical Association of America, Cincinnati, OH, January 12–15, 1994
3. Properties of Generalized Frobenius Partition Functions, The Center for Communications Research, The Institute for Defense Analysis, La Jolla, CA, March 15, 1994
4. Recurrences for 2-Colored and 3-Colored F-Partitions, Minneapolis Mathfest, August 15, 1994
5. Generating Interest in Generating Functions, Joint Spring Meeting of the Ohio Section of the Mathematical Association of America and the American Mathematical Association of Two-Year Colleges, The Ohio State University, April 22, 1995
6. Several Arithmetic Identities Involving the Number of Ways to Write an Integer as the Sum of 3 Triangular Numbers, Fall Meeting of the Ohio Section of the Mathematical Association of America, Central State University, October 21, 1995
7. 4-Cores: A Hunt for Congruences, Pi Mu Epsilon Group, The University of Dayton, March 19, 1996
8. Undergraduate Research in Partition Theory?, Cedarville College, April 9, 1996
9. Congruences for Partitions into Powers of 2 or 3, Fall Meeting of the Ohio Section of the Mathematical Association of America, Denison University, October 25, 1996

10. Simultaneously Odd and Perfect Numbers, Pi Mu Epsilon Group, The University of Dayton, March 13, 1997
11. CMJ Problem 584 or Why I Love the MAA Ohio Section Meetings, Spring Meeting of the Ohio Section of the Mathematical Association of America, Youngstown State University, April 12, 1997
12. On Infinitely Many Odd Nonunitary Abundant Numbers, Fall Meeting of the Ohio Section of the Mathematical Association of America, Shawnee State University, October 25, 1997
13. Triangles: Geometric and Square, Pi Mu Epsilon Group, The University of Dayton, March 26, 1998
14. Centers of Mass: Hands-On Observations, Spring Meeting of the Ohio Section of the Mathematical Association of America, John Carroll University, April 18, 1998
15. Advising Mathematics Students Academically and Professionally, National Project NexT Meeting, Ryerson Polytechnic University (Toronto), July 15, 1998
16. New Results on Sums of Three Squares, Fall Meeting of the Ohio Section of the Mathematical Association of America, Columbus State Community College, October 9, 1998
17. Congruences for m -ary partition Functions: Revisiting the Work of Andrews and Others, Special Session on Partitions and q -series, Fall Meeting of the Eastern Section of the American Mathematical Society, The Pennsylvania State University, October 25, 1998
18. So What Can I Do With a Math Degree, Cedarville College Mathematics Club, Cedarville College, January 12, 1999
19. Alternating Sign Matrices and Divisibility Properties, Pi Mu Epsilon Group, The University of Dayton, February 12, 1999
20. Generalizing Bailey's Generalization of the Catalan Numbers, Spring Meeting of the Ohio Section of the Mathematical Association of America, University of Dayton, March 27, 1999
21. Jacobsthal Numbers and Alternating Sign Matrices, Spring Meeting of the Ohio Section of the Mathematical Association of America, Marshall University, April 8, 2000
22. Arithmetic Properties of Basis Partitions with Specified Durfee Square Size, Pi Mu Epsilon Group, The University of Dayton, April 13, 2000

23. Arithmetic Properties of Various Families of Plane Partitions, Mathematics/Computer Science Colloquium, Xavier University, September 29, 2000
24. A Special Family of Graphical Partitions, Fall Meeting of the Ohio Section of the Mathematical Association of America, Wittenberg University, October 27, 2000
25. Congruences for Binary Partition Functions Old and New, Graduate Student Colloquium, Miami University (OH), January 30, 2001
26. TSSCPPs and CSTCPPs, Spring Meeting of the Ohio Section of the Mathematical Association of America, Bowling Green State University, March 24, 2001
27. How Many Odd Nonunitary Abundant Numbers Are There?, Penn State Math Club, September 26, 2001
28. Congruences and Recurrences for 2-Colored Frobenius Partitions, Partitions Seminar, Penn State University, September 27, 2001
29. An Overview of m -ary Partition Functions, Partitions Seminar, Penn State University, October 25, 2001
30. Advising Mathematics Students Academically and Professionally, Ohio Project Next Meeting, Marietta College, October 26, 2001
31. On Infinitely Many Composite NSW Numbers: An Inductive Proof, Fall Meeting of the Ohio Section of the Mathematical Association of America, Marietta College, October 26, 2001
32. Fibonacci Fun: Exploration, Discovery, and Proof, WISE (Women in the Sciences and Engineering) MathFest, November 10, 2001
33. Results on Graphical Partitions, Partitions Seminar, Penn State University, December 6, 2001
34. Various Partition Identities, Partitions Seminar, Penn State University, January 31, 2002
35. Triangles: Geometric and Square, Penn State Math Club, February 4, 2002
36. Various Partition Identities, II, Partitions Seminar, Penn State University, February 7, 2002
37. Enumerating Graphical Forest Partitions, Spring Meeting of the Allegheny Mountain Section of the Mathematical Association of America, West Liberty State College (WV), April 5, 2002

38. Fibonacci Numbers: History, Facts and Conjectures, State College High School Math Club, April 22, 2002
39. Advising Mathematics Students Academically and Professionally, National Project NexT Meeting, University of Vermont, July 31, 2002
40. Graphical Forest Partitions: Research With a Cedarville Alum, Cedarville University, September 9, 2002
41. A Search For Odd Nonunitary Abundant Numbers, Juniata College, September 19, 2002
42. Combining Number Theory and Graph Theory: Graphical Forest Partitions, Penn State Math Club, September 23, 2002
43. Combining Number Theory and Graph Theory: Graphical Forest Partitions, Annual Non–University Park Mathematics Faculty Meeting, October 14, 2002
44. Combining Number Theory and Graph Theory: Graphical Forest Partitions, Penn State Algebra and Number Theory Seminar, October 17, 2002
45. Congruences and Recurrences for Certain F–Partition Functions, I, Partitions Seminar, Penn State University, October 24, 2002
46. New Results on Graphical Forest Partitions, Fall Meeting of the Ohio Section of the Mathematical Association of America, Kent State University Trumbull Campus, October 25, 2002
47. Congruences and Recurrences for Certain F–Partition Functions, II, Partitions Seminar, Penn State University, October 31, 2002
48. A Search For Odd Nonunitary Abundant Numbers, Bucknell University, December 3, 2002
49. TSSCPPs and CSTCPPs, Spring Meeting of the Allegheny Mountain Section of the Mathematical Association of America, Penn State University Dubois, April 5, 2003
50. A Search For Odd Nonunitary Abundant Numbers, Millersville University Mathematics Department Colloquium, April 11, 2003
51. Miscellaneous Results for Overpartitions, Partitions Seminar, Penn State University, April 17, 2003
52. Beyond Mere Convergence, Juniata College, September 25, 2003

53. A Search For Odd Nonunitary Abundant Numbers, Gettysburg College Mathematics Department Colloquium, October 2, 2003
54. TSSCPPs and CSTCPPs: Relating Two Families of Plane Partitions, Penn State CWC Mathematics Faculty Meeting, October 25, 2003
55. A Generalization of Overpartitions: Preliminary Results, INTEGERS Conference 2003, State University of West Georgia, October 31, 2003
56. Arithmetic Properties of Hyper m -ary Partitions, Partitions Seminar, Penn State University, November 5, 2003
57. Arithmetic Properties of Hyper m -ary Partitions, II, Partitions Seminar, Penn State University, November 12, 2003
58. Beyond Mere Convergence, Penn State Math Club, December 1, 2003
59. Characterizing Overpartitions Modulo Small Powers of Two, Partitions Seminar, Penn State University, December 10, 2003
60. New Views of Binary Partition Functions, Penn State Algebra and Number Theory Seminar, February 12, 2004
61. Beyond Mere Convergence, Millersville University Mathematics Department Colloquium, March 4, 2004
62. Mathematics Research With Undergraduates: Stories of Personal Success, West Virginia Wesleyan College Mathematics Department Colloquium, March 25, 2004
63. New Results for Hyperbinary Partitions, Spring Meeting of the Allegheny Mountain Section of the Mathematical Association of America, West Virginia Wesleyan College, March 27, 2004
64. Extending a Recent Result of Santos on Partitions into Odd Parts, Partitions Seminar, Penn State University, April 13, 2004
65. Networking in Mathematics, College of Wooster (OH) Department Colloquium, April 29, 2004
66. Math Night!, Special Session on Extracurricular Mathematics, MAA Mathfest, Providence, RI, August 12, 2004
67. Integer Partitions: Alive and Well, Juniata College, September 16, 2004
68. Mathematics Research With Undergraduates: Stories of Personal Success, Ohio Project Next Meeting, John Carroll University, October 22, 2004

69. Integer Partitions: Alive and Well, Fall Meeting of the Ohio Section of the Mathematical Association of America, John Carroll University, October 22, 2004
70. Beyond Mere Convergence, Fall Meeting of the Ohio Section of the Mathematical Association of America, John Carroll University, October 22, 2004
71. A Connection Between Binary Partitions and Non-Squashing Partitions, Conference on Additive Number Theory, University of Florida, November 17–20, 2004
72. Integer Partitions: Alive and Well, Millersville University Mathematics Department Colloquium, December 2, 2004
73. New Results for Overpartitions, Penn State Algebra and Number Theory Seminar, March 17, 2005
74. Beyond Mere Convergence, Spring Meeting of the Allegheny Mountain Section of the Mathematical Association of America, Slippery Rock University, April 2, 2005
75. Cool Results Involving Compositions, Juniata College, September 22, 2005
76. Cool Results Involving Compositions, Penn State Math Club, September 26, 2005
77. On Sloane's Generalization of Non-Squashing Stacks of Boxes, Partitions Seminar, Penn State University, October 11, 2005
78. An Infinite Family of Overpartition Congruences Modulo 12, INTEGERS Conference 2005, State University of West Georgia, October 27-30, 2005
79. A Search For Odd Nonunitary Abundant Numbers, Lock Haven University Mathematics Department Colloquium, November 29, 2005
80. Arithmetic Properties of Hyper m -ary Partitions, Penn State Math Club, January 23, 2006
81. Bulgarian Solitaire and Garden of Eden Partitions, Partitions Seminar, Penn State University, January 31, 2006
82. Cool Results Involving Fibonacci Numbers and Compositions, Slippery Rock University Fibonacci Day, March 8, 2006
83. TSSCPPs and CSTCPPs: Relating Two Families of Plane Partitions, Partitions Seminar, Penn State University, March 21, 2006
84. Bulgarian Solitaire and Garden of Eden Partitions, Millersville University Mathematics Department Colloquium, March 23, 2006

85. Mathematics Research With Undergraduates: Stories of Personal Success, Allegheny Mountain Section Project NExT Meeting, Juniata College, April 7, 2006
86. On Sloane's Generalization of Non-Squashing Stacks of Boxes, Special Session on Partitions and q -series, Spring Meeting of the Western Section of the American Mathematical Society, San Francisco State University, April 29-30, 2006
87. Advising Mathematics Students Academically and Professionally, National Project NExT Meeting, Knoxville, TN, August 9, 2006
88. Bulgarian Solitaire and Garden of Eden Partitions, Juniata College, September 14, 2006
89. Academic Integrity Issues in Penn State's Eberly College of Science, The Fifth Annual Professional Development Conference on Academic Advising, Penn State University, September 27-28, 2006
90. Bulgarian Solitaire and Garden of Eden Partitions, Penn State Math Club, October 9, 2006
91. Parity Results for Broken k -Diamonds, Partitions Seminar, Penn State University, October 31, 2006
92. Tiling Proofs of Recent Sum Identities Involving Pell Numbers, Partitions Seminar, Penn State University, December 12, 2006
93. Tiling Proofs of Recent Sum Identities Involving Pell Numbers, Penn State Math Club, March 19, 2007
94. Research in Integer Partitions: Alive and Well, Spring Meeting of the Allegheny Mountain Section of the Mathematical Association of America, Mercyhurst College, April 13, 2007
95. Cool Results Involving Fibonacci Numbers and Compositions, Lock Haven University, April 26, 2007
96. Parity Results for Broken k -Diamonds, Illinois Number Theory Fest, University of Illinois at Urbana-Champaign, May 17, 2007
97. Tiling Proofs of Recent Sum Identities Involving Pell Numbers, British Combinatorial Conference, University of Reading (UK), July 2007
98. Advising Mathematics Students Academically and Professionally, National Project NExT Meeting, San Jose State University, San Jose, CA, August 2007

99. Advice on Writing Recommendation Letters (panelist), National Project NExT Meeting, San Jose State University, San Jose, CA, August 2007
100. Attracting More Mathematics Majors (panelist), National Project NExT Meeting, San Jose State University, San Jose, CA, August 2007
101. On Euler's Partition Theorem Relating Odd-Part Partitions and Distinct-Part Partitions, MAA MathFest, San Jose State University, San Jose, CA, August 2007
102. Cool Results Involving Fibonacci Numbers and Compositions, Penn State University, Harrisburg, September 6, 2007
103. Observations on the Parity of the Total Number of Parts in Odd-Part Partitions, Partitions and Combinatorics Seminar, Penn State University, September 18, 2007
104. Tiling Proofs of Recent Sum Identities Involving Pell Numbers, Juniata College, September 20, 2007
105. Observations on the Parity of the Total Number of Parts in Odd-Part Partitions, INTEGERS 2007, State University of West Georgia, October 2007
106. Cool Results Involving Fibonacci Numbers and Compositions, Shepherd University (WV), November 27, 2007
107. On Euler's Partition Theorem Relating Odd-Part Partitions and Distinct-Part Partitions, Penn State Math Club, December 3, 2007
108. Arithmetic Properties of Partitions with Non-Repeating Odd Parts, Partitions and Combinatorics Seminar, Penn State University, December 4, 2007
109. Cool Results Involving Fibonacci Numbers and Compositions, Millersville University Mathematics Department Colloquium, December 6, 2007
110. Graphical Partitions, Isaac Newton Institute Combinatorics and Statistical Mechanics Programme, University of Cambridge, February 25, 2008
111. Arithmetic Properties For Partitions Where Odd Parts Must Be Distinct, University of Exeter (UK), February 28, 2008
112. On m -ary Partitions and Non-Squashing Stacks of Boxes, University of Bergen (Norway), March 5, 2008
113. Enumeration of the Degree Sequences of Non-separable Graphs and Connected Graphs, Isaac Newton Institute Combinatorics and Statistical Mechanics Programme, University of Cambridge, April 2, 2008

114. Enumeration of the Degree Sequences of Non-Separable Graphs and Connected Graphs, Partitions and Combinatorics Seminar, Penn State University, September 2, 2008
115. On Euler's Partition Theorem Relating Odd-Part Partitions and Distinct-Part Partitions, Juniata College, September 11, 2008
116. On Euler's Partition Theorem Relating Odd-Part Partitions and Distinct-Part Partitions, Penn State University, Harrisburg, September 18, 2008
117. Congruences Modulo High Powers of 2 for Sloane's Box Stacking Function, Partitions and Combinatorics Seminar, Penn State University, October 14, 2008
118. Revisiting What Euler and the Bernoullis Knew About Convergent Infinite Series, Penn State Math Club, November 10, 2008
119. Enumeration of the Degree Sequences of Non-Separable Graphs and Connected Graphs, Combinatory Analysis 2008: Partitions, q -series, and Applications, Penn State University, December 5, 2008
120. Math Clubs and Co-Curricular Math Activities (panelist), National Project NEXt Meeting, Washington, DC, January 6, 2009
121. On m -ary Partitions and Non-Squashing Stacks of Boxes, Penn State University Graduate Student Seminar, January 15, 2009
122. Generalizing a Binomial Coefficient Identity of Beckwith, Partitions and Combinatorics Seminar, Penn State University, January 27, 2009
123. Recent Arithmetic Results Related to m -ary Partition Functions, Penn State Algebra and Number Theory Seminar, January 29, 2009
124. Euler and His Polyhedral Formula, State College High School, February 6, 2009
125. Beyond Mere Convergence, Penn State Mathematics Department Teaching Seminar, February 26, 2009
126. Elementary Proofs of Various Facts about 3-cores, Partitions and Combinatorics Seminar, Penn State University, March 3, 2009
127. Elementary Proofs of Parity Results for 5-Regular Partitions, Conference on Quadratic Forms, Sums of Squares, Theta Functions and Integral Lattices, University of Florida, March 11-15, 2009
128. A Different Look at Albrecht and White's Path Counting in Grids, Spring Meeting of the Allegheny Mountain Section of the Mathematical Association of America,

Wheeling Jesuit University, April 4, 2009

129. Arithmetic Properties of Partitions with Even Parts Distinct, Partitions and Combinatorics Seminar, Penn State University, April 7, 2009
130. Cool Patterns in Pascal's Triangle, State College High School, April 20, 2009
131. Graphical Partitions, Penn State Math Club, April 20, 2009
132. Enumeration of the Degree Sequences of Non-Separable Graphs and Connected Graphs, Departmental Colloquium, West Virginia University, April 22, 2009
133. Beyond Mere Convergence, Pi Mu Epsilon Banquet, West Virginia University, April 22, 2009
134. A Gentle Introduction to Generating Functions, State College High School, May 18–19, 2009
135. Mathematics Research With Undergraduates: Stories of Personal Success, Association of Christians in the Mathematical Sciences (ACMS) Biennial Conference, Wheaton College, May 2009
136. Beyond Mere Convergence, Association of Christians in the Mathematical Sciences (ACMS) Biennial Conference, Wheaton College, May 2009
137. Generalizing a Binomial Coefficient Identity of Beckwith, Juniata College, September 10, 2009
138. Generalizing a Binomial Coefficient Identity of Beckwith, Penn State Math Club, September 14, 2009
139. Cool Results Involving Fibonacci Numbers and Compositions, Clarion University, September 23, 2009
140. Cool Results Involving Fibonacci Numbers and Compositions, State College High School, October 7, 2009
141. Elementary Proofs of Parity Results for 5-Regular Partitions, INTEGERS 2009, State University of West Georgia, October 14-17, 2009
142. An Overview of Generalized Frobenius Partitions, Partitions and Combinatorics Seminar, Penn State University, October 20, 2009
143. Infinite Families of Divisibility Properties Modulo 4 for Non-Squashing Partitions into Distinct Parts, Special Session on q -Series and Related Areas in Enumerative Combinatorics and Number Theory, Fall Meeting of the Eastern Section of the

American Mathematical Society, Penn State University, October 24-25, 2009

144. Revisiting What Euler and the Bernoullis Knew About Convergent Infinite Series, Penn State Harrisburg, December 3, 2009
145. Cool Results Involving Fibonacci Numbers and Compositions, Westmont College (CA), January 2010
146. TBD, Taylor University, March 8, 2010
147. On m -ary Partitions and Non-Squashing Stacks of Boxes, University of Northern Iowa Department Colloquium, March 10, 2010
148. TBD, Spring 2011 Meeting of the Associated Colleges of the Chicago Area, Trinity Christian College, February 2011

CONFERENCES ORGANIZED

- MAA Ohio Section Short Course, Proofs and Confirmations: the Story of the Alternating Sign Matrix Conjecture, David Bressoud, Cedarville University, Summer 2000
- Celebrating George Andrews' Election to the National Academy of Sciences and his 65th Birthday (GANAS), Penn State University, April 1, 2004 (co-organized with Dale Brownawell)
- Conference on Undergraduate Research in Mathematics, Penn State University, November 9-10, 2007 (co-organized with Diane Henderson)
- A Celebration of George Andrews' 70th Birthday, Penn State University, December 5-7, 2008 (co-organized with Krishna Alladi (University of Florida), Peter Paule (University of Linz), and Ae Ja Yee (Penn State University))
- Conference on Undergraduate Research in Mathematics, Penn State University, November 20-21, 2009 (co-organized with Diane Henderson)

PANELS/SPECIAL SESSIONS ORGANIZED

- Organizer of Invited Paper Session entitled Ramanujan's Impact on Number Theory – Then and Now, MathFest 2008, Madison, WI
- Co-Organizer (with Michael Starbird) of Panel Discussion entitled First-Year Courses Designed to Attract Students to the Serious Study of Mathematics, MathFest 2008, Madison, WI
- Co-Organizer (with Robert Rogers) of Panel Discussion entitled Mathematics Outreach Programs for Pre-College Students, MathFest 2009, Portland, OR
- Co-Organizer (with David Little and Ae Ja Yee) of Special Session entitled q -Series and Related Areas in Enumerative Combinatorics and Number Theory, 2009 Fall Eastern Section Meeting of the American Mathematical Society, Penn State University

CONSULTING

- MAA Project NExT, 1998–2000, 2002, 2006–present
- In-service presenter for high school mathematics departments at Bald Eagle Area School District (2004–2007) and State College Area High School (2009)
- Pennsylvania Department of Education, December 2004; December 2005 – January 2006
- Lock Haven University Department of Mathematics, External Reviewer for 5-Year Review, 2007
- United States Naval Academy Department of Mathematics, External Reviewer, 2009

SERVICE TO THE MATHEMATICAL ASSOCIATION OF AMERICA

- Chair, CONTEAC (Committee on Teacher Certification) for the Ohio Section of the Mathematical Association of America, 1997–1998
- Member, CONSTUM (Committee on Student Members) for the Ohio Section of the Mathematical Association of America, 1998–2001
- Chair, CONSTUM (Committee on Student Members) for the Ohio Section of the Mathematical Association of America, 2000–2001
- Director of E-Communications (webmaster) for the MAA Allegheny Mountain Section, August 2002–2010
- Member, MAA Committee on Electronic Services, 2002–2004
- Member, MAA Committee on Web Policy and Procedures, 2004–present
- Member, MAA Committee on the Undergraduate Program in Mathematics, 2007–2013
- Governor of the Allegheny Mountain Section, 2008–2011
- Member, Ad Hoc AMS-MAA Steering Committee on Computer-Based Homework Systems, 2008–2010
- Member, AMS-MAA Committee on Teaching Assistants and Part-Time Instructors, 2010–2013

REFEREE DUTIES

Referee for several journals including American Mathematical Monthly, Ars Combinatoria, Australasian Journal of Combinatorics, Discrete Applied Mathematics, Discrete Mathematics, Electronic Journal of Combinatorics, INTEGERS: The Electronic Journal of Combinatorial Number Theory, International Journal of Mathematics and Mathematical Sciences, Journal of Combinatorial Theory Series A, Journal of Integer Sequences, Journal of Number Theory, Journal of Physics A: Mathematical and General, Mathematical Biosciences, Mathematics and Computer Education, Mathematics Magazine, Ramanujan Journal, Rocky Mountain Journal of Mathematics, and Tamsui Oxford Journal of Mathematical Sciences

OTHER ACTIVITIES

- Developer of solutions to problems B878, B879, B882, B884, B896, B897, B905, B906, B911, B912, B936, B937, B938, B946, B951, B959, B961, B962, B966, B967, B976, B977, B980, B987, B988, B992, B993, B996, B997, B1006, B1010, B1012, B1032, B1033, B1044, B1049, B1051, H635 in the Fibonacci Quarterly
- Developer of solutions to problems 1047, 1049, 1056, 1059, 1148, 1150, 1151, 1152, 1174, 1180, 1183, 1187, 1189, 1205, 1997, 2000 in the Pi Mu Epsilon Journal
- Course developer for The Teaching Company
 - High School Algebra 1, 2009
 - High School Algebra 2, 2010
- Associate Editor for Neil J.A. Sloane's Online Encyclopedia of Integer Sequences, located at <http://www.research.att.com/~njas/sequences>. My duties have included extending and authoring over 1000 sequences and updating bad URLs and journal article references in a number of the sequence entries.
- Member, Penn State Department of Mathematics Speakers' Bureau, 2002–present
- Member, Graduate Faculty, Penn State University, 2003–present
 - Co-advisor for Brandt Kronholm, M.A., Mathematics (2004), Penn State University (co–advised with George Andrews). Thesis title: Congruence properties of $p(n,m)$
 - External Thesis Reviewer, appointed by the University of Lagos, Nigeria, for Augustine Munagi, Ph.D., Mathematics (2005). Thesis title: Restricted partition formulas, the Rademacher Conjecture, and q -partial fractions
 - Committee Member for Michael Rowell, Ph.D., Mathematics (2007), Penn State University. Thesis title: The Bailey transform and conjugate Bailey pairs
 - Committee Member for John Ethier, Ph.D., Mathematics (2008), Penn State University. Thesis title: Strong Forms of Orthogonality for Sets of Hypercubes
 - Committee Member for Shishuo Fu, Ph.D., Mathematics, Penn State University
 - Committee Member for Heiko Todt, Ph.D., Mathematics, Penn State University

Last updated November 25, 2009