Eric S. Egge

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Education

- Ph. D. in Mathematics, University of Wisconsin, Madison, WI, May, 2000 Minor: Computer Science Research Area: Algebraic and Enumerative Combinatorics (MR #05A,#05E) Advisor: Paul M. Terwilliger
- M. A. in Mathematics, University of Wisconsin, Madison, WI, December, 1995
- B. A. in Mathematics, summa cum laude, Carleton College, Northfield, MN, June, 1994

Positions Held

- Associate Provost, Carleton College, July 2023–Present
- Associate Provost and Director of Undergraduate Research, Carleton College, July 2022–June 2023
- Associate Dean of the College and Director of Undergraduate Research, Carleton College, July 2021–June 2022
- Professor of Mathematics, Carleton College, Fall, 2015–Present
- Department Chair, Department of Mathematics and Statistics, Carleton College, July, 2017–June, 2020
- Associate Professor of Mathematics, Carleton College, Fall, 2009–Spring, 2015
- Visiting Scholar, University of Pennsylvania, Fall, 2008
- Assistant Professor of Mathematics, Carleton College, Fall, 2005–Spring, 2009
- Assistant Professor of Mathematics, Gettysburg College, Fall, 2000–Spring, 2005

Honors and Awards

- MAA North Central Section Award for Excellence in Teaching, April, 2020
- Carleton College Towsley Student Research Grant, March, 2011
- Carleton College HHMI Student Research Grant, March, 2009
- Carleton College Hewlett Mellon and Elledge Fellowship, November, 2007
- Carleton College HHMI Student Research Grant, March, 2007
- Carleton College HHMI Curriculum Development Grant, with Sam Patterson, February, 2007
- Gettysburg College Research and Professional Development Grant, December, 2003

- Gettysburg College Research and Professional Development Grant, with Darla Kremer, December, 2002
- Johnson Center for Creative Teaching Fellowship, with Steven J. Gimbel, 2002
- Gettysburg College Research and Professional Development Grant, May, 2002
- Gettysburg College Research and Professional Development Grant, December, 2001
- Project NExT Fellow (Gold Dot), 2000-01
- University of Wisconsin Graduate School Excellence in Teaching Award, 2000
- University of Wisconsin Vilas Travel Grant, 2000
- University of Wisconsin College of Letters and Science Teaching Fellow, 1999
- GAANN Research Fellowship, 1997, 1998, 1999
- University of Wisconsin Department of Mathematics Excellence in Teaching Award, 1998
- Phi Beta Kappa, Carleton College Chapter, 1994
- National Forensic Association Nationals in Impromptu Speaking, 1992, 1993

Courses Taught

• Lower Level

FOCUS Colloquium, Mathematical Ideas, Calculus with Precalculus I, Calculus with Precalculus II, Calculus with Problem Solving, Calculus I, Calculus II, Calculus III, Mathematical Modeling

• Intermediate Level

Multivariable Calculus, Inquisitive Problem Solving, Linear Algebra, Introduction to Mathematical Structures

• Upper Level

Differential Equations, Abstract Mathematics II, Introduction to Combinatorics, Complex Analysis, Numerical Analysis, From Zero to Infinity: Philosophical Revolutions in Mathematics (with Steven J. Gimbel), Abstract Algebra I, Abstract Algebra II, From the Shape of the Nile to the Shape of Space: Philosophical Revolutions in the History of Geometry (with Steven J. Gimbel), Topics in Graph Theory, Topics in Combinatorics: The Alternating Sign Matrix Conjectures, Advanced Topics in Combinatorics, The Combinatorics of Symmetric Functions, Advanced Linear Algebra, Combinatorial Games

• Masters Level

Combinatorial Analysis and Graph Theory

• Independent Studies

Advanced Abstract Algebra, Advanced Graph Theory, Cellular Automata, Chaotic Dynamical Systems, Combinatorial Games, Combinatorial Optimization, Combinatorics of Symmetric Functions, Commutative Algebra and Zero-Divisor Graphs, Finite Simple Groups, Lie Algebras, Mathematical Writing, Probability and Statistics

Undergraduate Research Supervised

1. Tracale Austin, Hans Bantilan, Isao Jonas, and Paul Kory, *The Pfaffian Transform*, Mathematics capstone project, Fall 2006 to Winter 2007.

The Pfaffian Transform, Journal of Integer Sequences, vol. 12, Article 09.1.5, 2009.

2. David Lonoff and Jonah Ostroff, *Restricted Symmetric Permutations*, supported by a Carleton grant from the Howard Hughes Medical Institute, Summer 2007.

Symmetric Permutations Avoiding Two Patterns, Annals of Combinatorics, vol. 14, pp. 143–158, 2010.

- 3. Adrian Duane, Kepler Towers, Kepler Walls, and Narayana Statistics, Spring 2007 to Spring 2008.
- 4. Nathan Williams, Alternating Sign Matrices, Spring 2008.

An Alternating Sum of Alternating Sign Matrices, Rose-Hulman Undergraduate Mathematics Journal, vol. 9, issue 2, 2008.

- 5. Alex Fisher, *Identities for Triangular Recurrences*, supported by a Carleton grant from the Howard Hughes Medical Institute, Summer 2009.
- 6. Long Chan and Erin Jones, *Functions on Young's Lattice*, supported by a Carleton grant from the Howard Hughes Medical Institute, Summer 2009.

Functions on Young's Lattice, Pi Mu Epsilon Journal, vol. 13, issue 9, pp. 535–540, 2013.

- Erica Chesley, Zack Starer-Stor, and Emma Zhou, A Puzzle for the Higman-Sims Group, Winter and Spring 2010.
- 8. Xin Chen, A q = -1 Phenomenon in Pattern-Avoiding Permutations, supported by Carleton's Kolenkow-Reitz Research Fund, December 2010.

A q = -1 Phenomenon in Pattern-Avoiding Permutations, Rose-Hulman Undergraduate Mathematics Journal, vol. 12, issue 2, 2011.

- 9. Ben Anderson, Xin Chen, Andy Hardt, Tommy McCauley, Tung Phan, and Justin Troyka, Variations on Loehr and Warrington's Infinite Family of Partition Bijections, Winter and Spring 2011.
- Gabe Davis, Aaron Maurer, and Julie Michelman, Search for a Bijective Proof of a Macdonald Polynomial Symmetry, Winter and Spring 2011.
- 11. Andy Hardt and Justin Troyka, *Enumerating Restricted Symmetric Signed Permutations*, partially supported by Carleton's Towsley endowment, Summer 2011.

Restricted Symmetric Signed Permutations, *Pure Mathematics and Applications*, vol. 23, issue 3, pp. 179–217, 2012.

- Leo Betthauser, Jacobi-Stirling Number Identities, supported by a Mellon-Mays Fellowship, Spring 2012 to Spring 2014.
- 13. Ben Caffrey, Greg Michel, Kailee Rubin, and Jon Ver Steegh, *Tilings of Aztec Diamonds, Baxter Permutations, and Pattern Avoidance*, Fall 2013 and Winter 2014.

Domino Tilings of Aztec Diamonds, Baxter Permutations, and Snow Leopard Permutations, *Involve*, vol. 8, no. 5, pp. 833–858, 2015.

14. Kailee Rubin, Permutations Connected with Catalan Numbers: Snow Leopard Permutations and Rotationally Symmetric 2413-Avoiding Permutations, Spring 2014.

Snow Leopard Permutations and Their Even and Odd Threads, Discrete Mathematics and Theoretical Computer Science, vol. 18, no. 2, #5, 2016.

15. David Anderson, Lucas Ryan, Ruth Steinke, and Yuriko Vaughan, *Pattern Avoiding Linear Extensions* of *Rectangular Posets*, Fall 2015 and Winter 2016.

with Manda Riehl, Pattern Avoiding Linear Extensions of Rectangular Posets, *Journal of Combinatorics*, vol. 9, no. 1, pp. 185–220, 2018.

- 16. David DeMark and Isaac Garfinkle, Monomial Loop Symmetric Functions, Winter and Spring 2017.
- 17. Alice Antia and Martha Torstenson, Cellular Automata Models of Stratified Wealth Distribution, Winter 2018.
- Brody Lynch and Yihan Qin, Statistics on Pattern-Avoiding Permutations Almost Counted by the Fibonacci Numbers, Winter 2019 to Winter 2020.

Statistics on Almost-Fibonacci Pattern-Avoiding Permutations, Minnesota Journal of Undergraduate Mathematics, vol. 7, no. 1, 2022.

19. Michaela Polley, Thin Groups in $SL_3(\mathbb{Z})$, Winter 2020 to Fall 2022.

The 334-Triangle Graph of $SL_3(\mathbb{Z})$, *Involve*, vol. 15, no. 3, pp. 537–546, 2022.

Research Papers

- [1] A Generalization of the Terwilliger Algebra, Journal of Algebra, vol. 233, pp. 213–252, 2000.
- [2] The Generalized Terwilliger Algebra and its Finite Dimensional Modules when d = 2, Journal of Algebra, vol. 250, pp. 178–216, 2002.
- [3] A Weight-Preserving Bijection between Schröder Paths and Schröder Permutations, with Jason Bandlow and Kendra Killpatrick, Annals of Combinatorics, vol. 6, pp. 235–248, 2002.
- [4] Permutations Which Avoid 1243 and 2143, Continued Fractions, and Chebyshev Polynomials, with Toufik Mansour, *Electronic Journal of Combinatorics*, vol. 9(2), article #R7, 2003.
- [5] A Schröder Generalization of Haglund's Statistic on Catalan Paths, with James Haglund, Kendra Killpatrick, and Darla Kremer, *Electronic Journal of Combinatorics*, vol. 10, article #R16, 2003.
- [6] 132-Avoiding Two-stack Sortable Permutations, Fibonacci Numbers, and Pell Numbers, with Toufik Mansour, Discrete Applied Mathematics, vol. 143, issue 1–3, pp. 72–83, 2004.
- [7] Restricted 3412-Avoiding Involutions, Continued Fractions, and Chebyshev Polynomials, Advances in Applied Mathematics, vol. 33, issue 3, pp. 451–475, 2004.
- [8] 231-Avoiding Involutions and Fibonacci Numbers, with Toufik Mansour, Australasian Journal of Combinatorics, vol. 30, pp. 75–84, 2004.
- [9] Restricted Permutations, Fibonacci Numbers, and k-Generalized Fibonacci Numbers, with Toufik Mansour, Integers: The Electronic Journal of Combinatorial Number Theory, vol. 5, article A1, 2005.
- [10] Bivariate Generating Functions for Involutions Restricted by 3412, with Toufik Mansour, Advances in Applied Mathematics, vol. 36, pp. 118–137, 2006.
- [11] Restricted Signed Permutations Counted by the Schröder Numbers, Discrete Mathematics, vol. 306, pp. 552–563, 2006.
- [12] Restricted Colored Permutations and Chebyshev Polynomials, Discrete Mathematics, vol. 307, pp. 1792–1800, 2007.
- [13] Restricted Symmetric Permutations, Annals of Combinatorics, vol. 11, pp. 405–434, 2007.
- [14] The Pfaffian Transform, with Tracale Austin, Hans Bantilan, Isao Jonas, and Paul Kory, Journal of Integer Sequences, vol. 12, Article 09.1.5, 2009.
- [15] Enumerating rc-Invariant Permutations with No Long Decreasing Subsequences, Annals of Combinatorics, vol. 14, pp. 85–101, 2010.
- [16] Legendre-Stirling Permutations, European Journal of Combinatorics, vol. 31, pp. 1735–1750, 2010.

- [17] From Quasisymmetric Expansions to Schur Expansions via a Modified Inverse Kostka Matrix, with Nicholas A. Loehr and Gregory S. Warrington, *European Journal of Combinatorics*, vol. 31, pp. 2014– 2027, 2010.
- [18] The Jacobi-Stirling Numbers, with George E. Andrews, Wolfgang Gawronski, and Lance L. Littlejohn, Journal of Combinatorial Theory, Series A, vol. 120, pp. 288-303, 2013.
- [19] Domino Tilings of Aztec Diamonds, Baxter Permutations, and Snow Leopard Permutations, with Ben Caffrey, Greg Michel, Kailee Rubin, and Jon Ver Steegh, *Involve*, vol. 8, no. 5, pp. 833–858, 2015.
- [20] Dynamics of 'quantumness' Measures in the Decohering Harmonic Oscillator, with Peter A. Rose, Andrew C. McClung, Tyler E. Keating, Adam T. C. Steege, and Arjendu K. Pattanayak, *Praman J. Phys.*, vol. 87, no. 32, 2016.
- [21] Snow Leopard Permutations and Their Even and Odd Threads, with Kailee Rubin, Discrete Mathematics and Theoretical Computer Science, vol. 18, no. 2, #5, 2016.
- [22] Pattern Avoiding Linear Extensions of Rectangular Posets, with David Anderson, Manda Riehl, Lucas Ryan, Ruth Steinke, and Yuriko Vaughan, *Journal of Combinatorics*, vol. 9, no. 1, pp. 185–220, 2018.
- [23] The 334-Triangle Graph of $SL_3(\mathbb{Z})$, with Michaela Polley, *Involve*, vol. 15, no. 3, pp. 537–546, 2022.
- [24] Pattern Avoiding Fishburn Permutations and Ascent Sequences, preprint.
- [25] Enumeration of Pattern-Avoiding Alternating Sign Matrices: An Asymptotic Dichotomy, with Mathilde Bouvel, Rebecca N. Smith, Jessica Striker, and Justin M. Troyka, submitted.

Other Papers

- [26] How a Math Class Can be Two Places at Once: A Proposed Mathematical/Philosophical Collaboration, with Steven J. Gimbel, Proceedings of the Fifth Annual International Conference of Bridges: Mathematical Connections in Art, Music, and Science, 2002.
- [27] Defying God: the Stanley-Wilf Conjecture, Stanley-Wilf Limits, and a Two-Generation Explosion of Combinatorics, in A Century of Advancing Mathematics, American Mathematical Society, 2015.

Books

[1] An Introduction to Symmetric Functions and their Combinatorics, American Mathematical Society, STML 91, 2019.

Conference Talks

- 1. A Generalization of the Terwilliger Algebra, AMS Special Session on Algebraic Combinatorics: Association Schemes, DePaul University, Chicago, IL, September 13, 1998.
- The Generalized Terwilliger Algebra of Certain Strongly Regular Graphs, Geometric and Algebraic Combinatorics Conference in honor of J. J. Seidel on his 80th birthday, Oisterwijk, The Netherlands, August 18, 1999.
- A Generalization of the Terwilliger Algebra of a Commutative Association Scheme, DIMACS Workshop on Codes and Association Schemes, DIMACS Center, Rutgers University, Piscataway, NJ, November 11, 1999.
- Modules for the Generalized Terwilliger Algebra in the Diameter Two Case, AMS Session on Associative Rings and Algebras, Joint Mathematics Meetings, Washington, DC, January 22, 2000.

- The Generalized Terwilliger Algebra of a Strongly-Regular Graph, Com²Mac Conference on Association Schemes, Codes and Designs, Pohang, Korea, July 4, 2000.
- Modules for the Generalized Terwilliger Algebra in the Diameter Two Case, Algebraic Combinatorics, Monster and Vertex Operator Algebras Conference, University of California, Santa Cruz, CA, July 27, 2000.
- Restricted Permutations Related to Fibonacci Numbers and k-Generalized Fibonacci Numbers, AMS Special Session on Algebraic Combinatorics, Joint Mathematics Meetings, San Diego, CA, January 9, 2002.
- 8. Restricted Permutations, Fibonacci Numbers, and k-Generalized Fibonacci Numbers, Tenth International Conference on Fibonacci Numbers and Their Applications, Flagstaff, AZ, June 25, 2002.
- Permutations Which Avoid 1243 and 2143, Continued Fractions, and Chebyshev Polynomials, AMS Special Session on Algebraic and Enumerative Combinatorics, University of Central Florida, Orlando, FL, November 10, 2002.
- The Generalized Terwilliger Algebra of a Finite Group, AMS Special Session on Character Theory of Finite Groups and Algebraic Combinatorics, SUNY-Binghamton, Vestal, NY, October 11, 2003.
- Connections Between Diagonal Harmonics and Schröder Paths, Minisymposium on Macdonald Polynomials and the Combinatorics of the Space of Diagonal Harmonics, SIAM Conference on Discrete Mathematics, Nashville, TN, June 13, 2004.
- 3412-Avoiding Involutions, Continued Fractions, and Chebyshev Polynomials, Second Annual International Conference on Permutation Patterns, Malaspina University-College, Nanaimo, British Columbia, July 5, 2004.
- Signed Permutations Counted by the Schröder Numbers, Workshop on Permutation Patterns, University of Haifa, Haifa, Israel, May 30, 2005.
- Restricted Symmetric Permutations, Joint Mathematics Meetings, AMS Session on Combinatorics, New Orleans, LA, January 8, 2007.
- The Binomial and Hankel Transforms of a Sequence, Spring Meeting of the North Central Section of the MAA, St. Paul, MN, April 14, 2007.
- Restricted Symmetric Permutations, Fifth Annual International Conference on Permutation Patterns, St. Andrews University, St. Andrews, Scotland, June 15, 2007.
- The Tableaux Graph of a Permutation, Joint Mathematics Meetings, AMS Session on Combinatorics, San Diego, CA, January 9, 2008.
- Permutations Invariant Under *rc* and Avoiding 4321, Seventh Annual International Conference on Permutation Patterns, University of Firenze, Florence, Italy, July 13, 2009.
- Legendre-Stirling Permutations, AMS Special Session on Enumerative Combinatorics, Florida Atlantic University, Boca Raton, FL, October 31, 2009.
- Symmetric Permutations with No Long Decreasing Subsequences, Joint Mathematics Meetings, AMS Session on Discrete Mathematics, San Francisco, CA, January 15, 2010.
- The Jacobi-Stirling Numbers, AMS Special Session on Symmetric Functions, Quasisymmetric Functions, and Associated Combinatorics, George Washington University, Washington, DC, March 18, 2012.
- Linear Recurrences and the Pfaffian Transform, MAA Mathfest Invited Paper Session on Combinatorics and Matrices, Madison, WI, August 2, 2012.
- Pattern-Avoiding Permutations and Lattice Paths: Old Connections and New Links, MAA Mathfest Invited Paper Session on Walk the Walk, Talk the Talk, Madison, WI, August 3, 2012.

- 24. New Pattern-Avoiding Permutations Counted by the Schröder Numbers, AMS Special Session on Permutation Patterns, Algorithms, and Enumerative Combinatorics, Rochester, NY, September 23, 2012.
- 25. Introducing 05A06: Patterns in Permutations and Words, AMS Special Session on Patterns in Permutations and Words, and Applications, Eau Claire, WI, September 20, 2014.
- Catalan Combinatorics of Borel Ideals and Generalizations, AMS Special Session on Algebraic Combinatorics, Eau Claire, WI, September 21, 2014.
- 27. Snow Leopard Permutations, Even Knots, Odd Knots, Janus Knots, and Restricted Catalan Paths, Midwest Combinatorics Conference, Minneapolis, MN, May 21, 2015.
- 28. A New Notion of Noncontiguous Containment for Ordered, Rooted Trees, AMS Special Session on Enumerative Combinatorics and Graph Theoretic Applications, Chicago, IL, October 4, 2015.
- A Chromatic Symmetric Function for Signed Graphs, AMS Special Session on Combinatorics of Symmetric Functions, Athens, GA, March 5, 2016.
- David Bressoud and the Alternating Sign Matrix Conjectures, MAA NCS Spring Meeting, Special Session on Bressoudian Mathematics, St. Paul, MN, April 16, 2016.
- Pattern Avoiding Fishburn Permutations and Ascent Sequences, Joint Mathematics Meetings, Special Session on Algebraic and Bijective Methods in Permutation Enumeration, Virtual, April 7, 2022.
- Evidence-Based Teaching: A Case Study, Fall Meeting of the North Central Section of the MAA, Grand Forks, ND, October 14, 2022.
- The Last Small Restricted Symmetric Permutation Enumeration, AMS Special Session on Permutation Patterns, Washington, DC, April 6, 2024.

Poster Presentations

- A Generalization of the Terwilliger Algebra, Poster Presentation, Formal Power Series and Algebraic Combinatorics 10th Annual Conference, Fields Institute, Toronto, Ontario, June 15, 1998.
- Modules for the Generalized Terwilliger Algebra, Poster Presentation, MAA Project NExT YMN Poster Session, Joint Mathematics Meetings, Washington, D.C., January 20, 2000.

Selected Lectures

- The Local Structure of the Johnson Graph, Combinatorics Seminar Talk, University of Wisconsin, Madison, WI, October, 1996.
- Alternating Sign Matrices, Combinatorics Seminar Talk, University of Wisconsin, Madison, WI, November 10, 1997.
- The T-Algebra and the Primary Module, Combinatorics Seminar Talk, University of Wisconsin, Madison, WI, February 23, 1998.
- The Tutte Polynomial and the Partition Function, Combinatorics Seminar Talk, University of Wisconsin, Madison, WI, November 23, 1998.
- Transfer Matrices and the Partition Function, Combinatorics Seminar Talk, University of Wisconsin, Madison, WI, February 8, 1999.
- 6. The Mathematics Behind Color, Invited Lecture, PEOPLE (Pre-College Enrollment Opportunity Program for Learning Excellence), University of Wisconsin, Madison, WI, June 21, 1999
- Catalan-like Numbers and Determinants of Hankel Matrices, Combinatorics Seminar Talk, University of Wisconsin, Madison, WI, October 4, 1999.

- 8. Modules for the Generalized Terwilliger Algebra of a Strongly Regular Graph, Combinatorics Seminar Talk, University of Wisconsin, Madison, WI, February 7, 2000.
- The Alternating Sign Matrix Conjectures, Colloquium Talk, Gettysburg College, Gettysburg, PA, March 7, 2000.
- Modules for the Generalized Terwilliger Algebra of a Strongly Regular Graph, Seminar Talk, National Security Agency, Fort Meade, MD, March 16, 2000.
- Voting Paradoxes, Arrow's Theorem, and the Case of the Math Department Mascot, Colloquium Talk, Gettysburg College, Gettysburg, PA, September 7, 2000.
- Voting Paradoxes, Arrow's Theorem, and the Case of the Math Department Mascot, Division of Natural Sciences and Mathematics Colloquium Talk, St. Mary's College, MD, November 15, 2000.
- Voting Paradoxes, Arrow's Theorem, and the Case of the Math Department Mascot, Colloquium Talk, Shippensburg University, February 20, 2001.
- 14. The Terwilliger Algebra of a Commutative Association Scheme and a Generalization, Combinatorics Seminar Talk, The George Washington University, February 23, 2001.
- Restricted Permutations, Sorting, and a Remarkable Continued Fraction, Combinatorics Seminar Talk, Colorado State University, April 6, 2001.
- The Mathematics of the Compact Disc, Colloquium Talk, Gettysburg College, Gettysburg, PA, September 6, 2001.
- The Mathematics of the Compact Disc, Division of Natural Sciences and Mathematics Colloquium Talk, St. Mary's College, MD, October 10, 2001.
- 18. The Alternating Sign Matrix Conjectures, Math Club Talk, St. Mary's College, MD, October 11, 2001.
- 19. The Mathematics of the Compact Disc, Central Pennsylvania Mathematics Association Annual Conference, Shippensburg University, Shippensburg, PA, April 4, 2002.
- The Alternating Sign Matrix Conjectures, Colloquium Talk, Beloit College, Beloit, WI, February 4, 2003.
- The Alternating Sign Matrix Conjectures, Colloquium Talk, Swarthmore College, Swarthmore, PA, October 1, 2002.
- The Alternating Sign Matrix Conjectures, Colloquium Talk, St. Olaf College, Northfield, MN, February 11, 2003.
- Permutations Which Avoid 1243 and 2143, Continued Fractions, and Chebyshev Polynomials, Combinatorics Seminar Talk, Howard University, Washington, DC, June 25, 2003.
- 3412-Avoiding Involutions, Continued Fractions, Chebyshev Polynomials, and Enumerations, Combinatorics Seminar Talk, University of Pennsylvania, Philadelphia, PA, November 11, 2003.
- Mathematical Teflon: How Mathematics Made Music Scratch Resistant, Pi Mu Epsilon Induction Talk, Hood College, Frederick, MD, April 18, 2004.
- The Alternating Sign Matrix Conjectures, Colloquium Talk, Gettysburg College, Gettysburg, PA, September 23, 2004.
- The Alternating Sign Matrix Conjectures, Student Seminar Talk, Bucknell University, Lewisburg, PA, October 28, 2004.
- The Alternating Sign Matrix Conjectures, Colloquium Talk, Carleton College, Northfield, MN, February 17, 2005.

- An Introduction to Pattern-avoiding Permutations and Involutions, Visiting Lecture, Macalester College, St. Paul, MN, April 21, 2006.
- Wilf-Equivalence in Pattern-avoiding Permutations and Involutions, Research Seminar Talk, St. Olaf College, Northfield, MN, April 21, 2006.
- The Alternating Sign Matrix Conjectures, Colloquium Talk, St. Olaf College, Northfield, MN, November 14, 2006.
- The Catalan Numbers and Kepler Towers, Research Seminar Talk, St. Olaf College, Northfield, MN, May 2, 2008.
- Restricted Symmetric Permutations, Combinatorics Seminar Talk, University of Pennsylvania, Philadelphia, PA, September 16, 2008.
- The Alternating Sign Matrix Conjectures, Colloquium Talk, Swarthmore College, Swarthmore, PA, September 23, 2008.
- 35. How Math Makes (Some) Marriages Stable, Colloquium Talk, Gettysburg College, Gettysburg, PA, November 6, 2008.
- 36. Legendre-Stirling Numbers, St. Olaf College Research Seminar, Northfield, MN, April 30, 2010.
- 37. Stable Matchings: How Two Mathematicians used Hospitals and Residents, College Admissions Offices, George Lopez's Kidney, and Your Netflix Queue to Win a Nobel Prize in Economics, Colloquium Talk, St. Olaf College, Northfield, MN, April 22, 2013.
- Stirling Permutations, Legendre-Stirling Permutations, and Jacobi-Stirling Permutations, Combinatorics Seminar Talk, University of Minnesota, Minneapolis, MN, February 7, 2014.