## CURRICULUM VITAE

(2-page version available upon request)

# Colm Mulcahy

Address Department of Mathematics

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Born September 1958, Dublin, Ireland

Citizenship Irish (Permanent resident status in U.S.A.)

Education Ph.D. in Mathematics, Cornell University, 1985

M.A. in Mathematics, Cornell University, 1982

M.Sc. in Mathematics, University College Dublin, 1979

B.Sc. in Mathematical Sciences, University College Dublin, 1978

Employment Spelman College, 1988 – , Professor of Mathematics (Chair, 2003 – 2006)

## Awards & Recognitions

- 1. Presidential Award in Scholarly Achievement, Spelman College, May 2013.
- First ever Faculty Innovation and Initiative Award (from Spelman College's Faculty Council), May 2011.
- 3. Fannie Lou Hamer Award (Spelman College Board of Trustees) for community service, April 2001.
- 4. Carl B. Allendoerfer Award (Mathematical Association of America prize for excellence in exposition), for "Plotting and Scheming with Wavelets," Mathematics Magazine, August 1997.

#### Courses taught

Mathematics for Liberal Arts, Honors Quantitative Reasoning, Precalculus sequence, Applied and regular Calculus sequences, Multivariable Calculus, General Statistics, Introduction to Mathematics Seminar, Foundations of Mathematics, Linear Algebra I & II, Discrete Mathematics, Mathematical Magic with Cards, Number Theory, Geometry, Numerical Analysis, Probability & Statistics I & II, Abstract Algebra I & II, Real Variables I & II, Senior Seminar

#### Book

1. Mathematical Card Magic: Fifty-Two New Effects, AK Peters/CRC (380 pages, August 2013)

## **Book Chapters**

 (with Neil Calkin, to appear) "Gallia est omnis divisa in partes quattuor (Mathematics Inspired by Dealing Cards into a Pile)," in *The Earnest Contemplation of Trivial Pursuits: Progress in Recreational Mathematics*, edited by Jennifer Beinecke & Jason Rosenhouse, Princeton University Press, August 2015

- 2. "Mathemagical Miracles," in Expeditions in Mathematics—The Second Book of BAMA Talks, 25–30, edited by Tatiana Shubin et al, Mathematical Association of America, March 2011
- 3. "His Genetic Evolution—One to Eight Inclusive (The g4g8 Bracelet)," a chapter in G4G8 Gathering for Gardner Exchange Book, edited by Scott Hudson, Jan 2011
- 4. "Mathematical Idol," in *Mathematical Wizardry for a Gardner*, 155–164, edited by Ed. Pegg Jr, Alan H. Schoen & Tom Rodgers, AK Peters, April 2009
- 5. (as Earnest Hammingway) "Horses In the Stream and Other Short Stories," in *Homage to a Pied Puzzler*, 233–247, edited by Ed. Pegg Jr, Alan H. Schoen & Tom Rodgers, AK Peters, February 2009
- 6. "Low-Down Triple Dealing," in *A Lifetime of Puzzles*, 29–34, edited by Eric Demaine, Martin Demaine & Tom Rodgers, AK Peters, November 2008
- 7. (as Earnest Hammingway) "Horses In the Stream and Other Short Stories," in G4G7 Gathering for Gardner Exchange Book-Volume 1, 208–217, edited by Scott Hudson, June 2007
- 8. "Fitch Cheney's Five Card Trick and Generalizations," in *The Edge of the Universe—Celebrating Ten Years of Math Horizons*, 273–276, edited by Deanna Haunnsperger & Stephen Kennedy, Mathematical Association of America, August 2006
- 9. (as Brain Epstein) "All You Need Is Cards," in *Puzzlers' Tribute: A Feast for the Mind*, 179–190, edited by David Wolfe & Tom Rodgers, AK Peters, January 2002

## Refereed Print Publications

- 1. "Three Cards Suffice," *Math Horizons*, Vol 22, No 2, 22–25, Mathematical Association of America (November 2014)
- 2. (with Dana Richards) "Let the Games Continue," *Scientific American*, Vol 311, No 4, 90–95 (October 2014, also in associated magazines in Poland, Spain, Taiwan, France, China and Japan, in translation)
- 3. (with Albert Goetz) "The Best Friend Mathematics Ever Had," *Mathematics Teacher*, 194–199, National Council of Teachers of Mathematics (October 2014)
- "One of Six and Another of Half a Dozen," Word Ways (The Journal of Recreational Linguistics), May 2007
- "An ESPeriment with Cards," Math Horizons, 10–12, Mathematical Association of America (February 2007)
- "Top 5 Reasons to Like Mathematical Card Tricks," Math Horizons, 5–7, Mathematical Association of America (February 2004)
- 7. "Fitch Cheney's Five Card Trick and Generalizations," *Math Horizons*, 10–13, Mathematical Association of America (February 2003)
- 8. (with John H. Conway & Tom Sederberg) "Tan Line Lofts Curve-Ouch!" *Math Horizons*, 1644–1645, Mathematical Association of America (April 2002)
- 9. (with John Rossi) "A fresh approach to the Singular Value Decomposition," MAA's College Mathematics Journal, 29, 3, 199–207 (May 1998)
- 10. "Image Compression Using The Haar Wavelet Transform," Spelman Science & Mathematics Journal, 1, 1, 22-31 (Spring 1997)

- 11. "Plotting and Scheming with Wavelets," *Mathematics Magazine*, **69**, 5, 323–343 (December 1996). Winner of MAA's *Carl B. Allendoerfer Award* for excellence in exposition, August 1997.
- 12. "The Curves and Surfaces of Computer Aided Geometric Design," *Maple Tech*, **3**, 1, Birkhäuser/Springer, 65–73 (April 1996)
- 13. (with Eberhard Becker & Alex Rosenberg) "Fans, quasi-fans, and their reduced Witt rings of higher level," *Algebra Berichte*, **68**, 1–36 (1992)
- 14. (with Eberhard Becker & Alex Rosenberg) "Ring theory of higher level reduced Witt rings," *Algebra Berichte*, **68**, 37–66 (1992)
- 15. (with Murray Marshall) "The Witt ring of a Space of Signatures," Journal of Pure and Applied Algebra, 67, 179-188 (1990)
- 16. (with Murray Marshall) "The representation theorem for Spaces of Signatures," in Proceedings of a Conference on Quadratic Forms and Real Algebraic Geometry, Rocky Mountain Journal of Mathematics, 19, 807–810 (1989)
- 17. "A representation theorem for higher level reduced Witt rings," Journal of Algebra 119, 105–122 (1988)
- 18. "An abstract approach to higher level forms and rigidity," Communications in Algebra, 16(3), 577–612 (1988)

#### Other Print Publications

- Review of "Undiluted Hocus-Pocus: The Autobiography of Martin Gardner" (also "The Top 10 Things Every Mathematics Student Should Know about Martin Gardner"), Math Horizons, Vol 22, No 1, 24–25, Mathematical Association of America (September 2014)
- 2. "In praise of a deservedly popular mathematician," guest op-ed column, Atlanta Journal & Constitution (October 21, 2010)
- 3. Opening problem in The Playground problem section in *Math Horizons*, 30, Mathematical Association of America (April 2009)
- 4. An Interview with Robert Schneider, MAA Focus, 6–8 (November 2007)
- Review of book Life By The Numbers by Keith Devlin, American Mathematical Monthly, Vol 107, No 7, 661–663 (Aug–Sep 2000)

## **Solutions Manuals**

- 1. (with Jeffrey O. Bennett) Instructor's Study Guide and Solutions Manual, 152+ pages, to accompany Essentials of Using and Understanding Mathematics—A Quantitative Reasoning Approach, 2nd Edition, by Jeffrey O. Bennett and William L. Briggs, Addison-Wesley (August 2002)
- 2. (with William L. Briggs) Student's Study Guide and Solutions Manual, 81+ pages, to accompany Essentials of Using and Understanding Mathematics—A Quantitative Reasoning Approach, 2nd Edition, by Jeffrey O. Bennett and William L. Briggs, Addison-Wesley (August 2002)
- 3. (with Jeffrey O. Bennett) Instructor's Study Guide and Solutions Manual, 230+ pages, to accompany Using and Understanding Mathematics—A Quantitative Reasoning Approach, 2nd Edition, by Jeffrey O. Bennett and William L. Briggs, Addison-Wesley (August 2001)
- 4. (with William L. Briggs) Student's Study Guide and Solutions Manual, 125+ pages, to accompany Using and Understanding Mathematics—A Quantitative Reasoning Approach, 2nd Edition, by Jeffrey O. Bennett and William L. Briggs, Addison-Wesley (August 2001)

## Card Colms at MAA.org (bi-monthly columns on mathematical card magic)

- 1. "Certain Glory Marks Martin Gardner's Centennial," October 2014
- 2. "Trim Hex Anagrams," August 2014
- 3. "Dicey Cards," June 2014
- 4. "Foregone Outset," April 2014
- 5. "Postage Stamp Issue," February 2014
- 6. "X-Ray Vision," December 2013
- 7. "The Sequence I Desire. Magic: When Divided, No Remainder," October 2013
- 8. "Rosette Shuffling Multiple Piles," August 2013
- 9. "Subtler Bracelets and Dissociative Disorders," June 2013
- 10. "Never Forget a Face (Double-Dealing with a Difference)," April 2013
- 11. "Flushed with Embarrassment," February 2013
- 12. "Predictability Outranks Luck," December 2012
- 13. "All or Nothing Trickle Treat," October 2012
- 14. "Gilbreeath Shuuffling," August 2012
- 15. "Something Old, Something True, Something Borrowed, Something New," June 2012
- 16. "Splitting the Pot," April 2012
- 17. "Amazon Arrays (Large Action)," February 2012
- 18. "Magical Mathematics: Recurring Cycles of Ideas of Cycles," December 2011
- 19. "A Third Selection of Mathemagical Amusements with Cards in Martin Gardner's Own Words," October 2011
- 20. "A Call For A New Shuffle Principle (Need Rot Sextet?)," August 2011
- 21. "Out Of This Whirled (The Odds Are Not Even)," June 2011
- 22. "Twisting the Knight Away (No Big Deal)," April 2011
- 23. "Low-Down Double Dealing With the Big Boys," February 2011
- 24. "It's Red or Black and Blue All Over," December 2010
- 25. "The Three Piles (This Isn't That Trick)," October 2010
- 26. "Celebration of Mind," October 2010
- 27. "Also In His Own Words: More Mathemagical Games (and Tricks) With Cards From Martin Gardner," August 2010
- 28. "In His Own Words: Mathematical Card Tricks From Martin Gardner (1914-2010)," June 2010
- 29. "Mathematical Idol 2010," April 2010
- 30. "Tighter Ascertainments: Matching Interest Rates," February 2010
- 31. "The Boldgach Conjecture," December 2009

- 32. "Poker-Faced Over the Phone," October 2009
- 33. "The Bligreath Principle," August 2009
- 34. "Two Summer Difference Certainties," June 2009
- 35. "The Yummie Deal and Variations," April 2009
- 36. "Esteem Synergism," February 2009
- 37. "What's Black and Red and Red All Over," December 2008
- 38. "Monge Shuffle Cliques," October 2008
- 39. "(A) Pi Evolved Set-Harmonic Split Drill," August 2008
- 40. "Sum-Rich Circulants," June 2008
- 41. "Projective Geometry (The Fano Plane)," April 2008
- 42. "Additional Certainties," February 2008
- 43. "Plurality Events, Standard Deviations, and Skewed Perspectives," December 2007
- 44. "A Magic Timepiece Influenced by Martin Gardner (Celebrating His 93rd Birthday Incidentally)," October 2007
- 45. "Sixy Alpha Omegas," August 2007
- 46. "Gibonacci Bracelets," June 2007
- 47. "Magic Circles of Eight," April 2007
- 48. "Quasi-Masked Forcing Kind of Magic Squares," February 2007
- 49. "Quantitative Reasoning in Small Groups," December 2006
- 50. "Martin Gardner's Magic Spells," October 2006
- 51. "The Second Norman Invasion," August 2006
- 52. "Better Poker Hands Guaranteed," June 2006
- 53. "Bill Simon's Sixty-Four Principle," April 2006
- 54. "Many Fold Synergies," February 2006
- 55. "Luckation is Everything," December 2005
- 56. "Subtraction is Addictive," October 2005
- 57. "The First Norman Invasion," August 2005
- 58. "A Little Erdös/Szekeres Magic," June 2005
- 59. "The Down Under Deal (aka the Australian Shuffle)," April 2005
- 60. "Fitch Four Glory," February 2005
- 61. "Sheer Luck," December 2004
- 62. "Low Down Triple Dealing," October 2004 Also published in MAA Focus, November 2004 (dedicated to Martin Gardner on the occasion of his 90th birthday)

#### Blogs

- 1. "Top 10 Martin Gardner Books (This List Goes Up to 11)," Huffington Post, October 28, 2014
- 2. "The Top 10 Martin Gardner Scientific American Articles," Scientific American, October 21, 2014
- 3. "How Well Do You Know Martin Gardner? [Quiz]," Scientific American, October 1, 2014
- 4. "Math Games of Martin Gardner Still Spur Innovation," Scientific American, October 1, 2014
- 5. "You Don't Have to Be a Genius to Work at Subway...," Huffington Post, September 18, 2014
- 6. "Mathematics, Magic and Mystery," Huffington Post, April 30, 2014
- 7. "A Month of Math, Magic and Mystery," Scientific American, April 16, 2014
- 8. "Magical History Tour—and Your Fave Fab Four Album Is in the Cards," *Huffington Post*, February 7, 2013
- "Celebrations of Mind Honor Math's Best Friend, Martin Gardner," Scientific American, October 29, 2013
- 10. "Martin Gardner-The Best Friend Mathematics Ever Had," Huffington Post, October 20, 2013
- 11. "Getting Kids Excited About Mathematics, One Festival at a Time," *Huffington Post*, July 11, 2013
- 12. "What Do I Have to Do to Get an A in This Class? (A Mathematical Perspective)," *Huffington Post*, April 30, 2013
- 13. "Centenary of Mathematician Paul Erdő–Source of Bacon Number Concept," *Huffington Post*, March 26, 2013
- 14. "In My Heart of Hearts: Valentine's Day Special," Huffington Post, February 14, 2013
- 15. "The Role of Biking and Hiking in Mathematics," Huffington Post, February 1, 2013
- 16. "Mean Questions With Harmonious Answers," Huffington Post, January 18, 2013
- 17. "A Pound of Quarters vs. a Pound of Dimes: Which Is Heavier, and Which Is Worth More?," *Huffington Post*, January 2, 2013
- 18. "Flipping Miracles (or Bar Bets to Amaze Your Friends)," Huffington Post, December 14, 2012
- 19. "Ratio: A Recurring Theme in Food, Art and Graphics," Huffington Post, November 29, 2012
- 20. "Oranges and Apples Comparisons: The Roots of the Problem," *Huffington Post*, November 9, 2012
- 21. "Weak Math? Try Math Week!," Huffington Post, October 25, 2012
- 22. "Food for Thought: Savory Treats for the Mind From the Julia Child of Mathematics and Rationality," *Huffington Post*, October 10, 2012
- 23. "Like everybody else, you too can be unique. Just keep shuffling," Aperiodical, May 28, 2012
- 24. "In what flipping dimension is a square peg in a round hole just as good as a round peg in a square hole?," *Aperiodical*, May 16, 2012
- 25. "Some infinities (and egos) are bigger than others," Aperiodical, May 8, 2012
- 26. "A student is artistic and loves poetry. Is it more likely she's studying Chinese or Business?," *Aperiodical*, May 2, 2012

#### Other Online Publications

- 1. "Martin Gardner, puzzle master extraordinaire," *BBC News* magazine, 20 October 2014 [received over 500,000 views in first 24 hours]
- 2. "Five Martin Gardner eye-openers involving squares and cubes," Plus magazine, 20 October 2014
- (with Sylvia Bozeman) "Experiences in Attracting Women to Mathematics at Spelman College" (based on a talk given at a special session on *Innovative Mathematics Majors in Small/Medium Departments*, MAA Mathfest, Albuquerque, New Mexico, August 4, 2005),
- 4. "Mathematical Card Tricks," as guest columnist AMS's What's New in Mathematics, October 2000
- 5. "Life By The Numbers-PBS series on Mathematics," review for MAA Online, June 1998
- 6. "Mathematics scores at the Academy Awards," article in MAA Online, March 1998
- 7. "Generous mathematical offerings at landmark AAAS meeting," article in MAA Online, November 1997

## Workshops/ Minicourses/ Short Courses presented

- 1. "To Tweet or Not to Tweet: That is the Question," MIT and Ed Tech, Spelman College, September 20, 2012
- 2. "Mathemagic with a Deck of Cards" (MAA minicourse), Mathfest '12, Madison, Wisconsin, August 3 & 4, 2012
- 3. (given with Jeffrey Ehme) "The Mathematical Basics of Cryptography" (MAA minicourse), Joint Mathematics Meeting, Washington, DC, January 6 & 8, 2009
- 4. (given with Jeffrey Ehme) "The Mathematical Basics of Cryptography" (MAA minicourse), Joint Mathematics Meeting, San Diego, California, January 6 & 8, 2008
- 5. "An Introduction to Mathematical Card Tricks" (REU workshop), Clemson University, Clemson, South Carolina, June 19, 2007
- "Hands-On Geometry Explorations" (REU workshop), Clemson University, Clemson, South Carolina, June 18–19, 2007
- 7. (given with Jeffrey Ehme) "The Mathematical Basics of Cryptography" (MAA minicourse), Joint Mathematics Meeting, New Orleans, Louisiana, January 5 & 7, 2007
- 8. "Alternative Approaches to Geometry" (faculty workshop), Project NExT session, Brown University, Providence, Rhode Island, August 11, 2004
- (with Jeffrey Ehme) "An Introduction to Mathematical Card Tricks" (MAA minicourse), Joint Mathematics Meeting, Phoenix, Arizona, January 7 & 9, 2004
- 10. "Introduction to Wavelets," University of Oriente, Santiago de Cuba, Cuba, March, 2003
- 11. "The Curves and Surfaces of the Digital Age," University of Oriente, Santiago de Cuba, Cuba, March, 2003
- 12. "Introduction to Wavelets," Instituto de Cibernetica Matematica y Fisica (ICIMAF), Havana, Cuba, March, 2003

- 13. "The Curves and Surfaces of the Digital Age," Instituto de Cibernetica Matematica y Fisica (ICIMAF), Havana, Cuba, March, 2003
- 14. (with Derek Smith) "Mathematical Card Tricks" (2 day minicourse), *Math Jubilee*, University of Georgia, Athens, Georgia, April 12–13, 2002
- 15. (with Jeffrey Ehme) "Mathematical Card Tricks" (MAA minicourse), Joint Mathematics Meeting, San Diego, California, January 7 & 9, 2002
- 16. "Mathematical and Self-Working Magic" (Teach-a-Trick Session), Georgia Magic Club International Brotherhood of Magicians Ring 9, Atlanta, Georgia, December 17, 2001
- 17. (with Jeffrey Ehme) "Mathematical Card Tricks" (MAA minicourse), Mathfest '01, Madison, Wisconsin, August 2 & 4, 2001
- "Image Compression Using Wavelets," International Conference CIMAF 2001 (6th Symposium on Mathematics and 4th Italo-Latinoamerican Conference on Industrial and Applied Mathematics), Havana, Cuba, March 23, 2001
- "The Curves and Surfaces of the Digital Age using Maple," International Conference CIMAF 2001 (6th Symposium on Mathematics and 4th Italo-Latinoamerican Conference on Industrial and Applied Mathematics), Havana, Cuba, March 22, 2001
- 20. (with Jeffrey Ehme) "A Hands-on Approach to Geometry" (MAA minicourse), Mathfest '00, Los Angeles, California, August 3 & 5, 2000
- 21. "Alternative Approaches to Geometry" (faculty workshop), Project NExT session, UCLA, Los Angeles, California, August 1, 2000
- 22. "The Curves and Surfaces of the Digital Age" (student workshop), MAA Oklahoma-Arkanasas Section Meeting, Arkanasas Technical University, Russellville, Arkanasas, March 31, 2000
- 23. (with Jeffrey Ehme) "Introduction to Mathematical Card Tricks" (MAA short course), 79th Annual MAA Southeastern Section Meeting, Univ. of North Carolina, Charlotte, North Carolina, March 10, 2000
- 24. (with Jeffrey Ehme) "The Curves and Surfaces of the Digital Age" (MAA minicourse), Joint Mathematics Meeting, Washington, DC, January 19–22, 2000
- 25. (with Jeffrey Ehme) "The Curves and Surfaces of the Digital Age" (MAA minicourse), MAA Mathfest '99, Providence, Rhode Island, July 31–August 3, 1999
- 26. "Alternative Approaches to Geometry" (faculty workshop), Project NExT's New Jobs, New Responsibilities, New Ideas, Brown University, Providence, Rhode Island, July 30, 1999
- 27. (with Jeffrey Ehme) "The Curves and Surfaces of the Digital Age" (MAA short course) MAA Southeastern Section Meeting, Rhodes College, Memphis, Tennessee, March 12, 1999
- 28. "An Introduction to Wavelets" (MAA minicourse), Joint Mathematics Meeting, San Antonio, Texas, January 13–16, 1999
- 29. "A Hands-on Approach to Geometry" (MAA minicourse), MAA Mathfest '98, Ryreson Polytechnical University, Toronto, Ontario, Canada, July 15–16, 1998
- 30. "A Hand-on Discovery-based Approach to Geometry" (MAA short course), 77th Annual MAA Southeastern Section Meeting, College of Charleston, Charleston, South Carolina, March 13, 1998
- 31. "Wavelets" (faculty workshop), University College Cork, Cork, Ireland, March 9, 1998
- 32. "Wavelets" (faculty workshop), Athlone Institute of Technology, Athlone, Ireland, March 5, 1998

- 33. "Smart use of computer techology as an enhancement to teaching, understanding and learning in Calculus, Linear Algebra and other mathematics courses" (faculty workshop), Project NExT, Georgia Institute of Technology, Atlanta, Georgia, August 2–3, 1997
- 34. (Group Leader) "ATLAST Developer's Workshop", University of California, San Diego, California, June 25–28, 1997
- 35. "An Introduction to Wavelets" (MAA short course), 75th Anniversary MAA Southeastern Section Meeting, Spelman College & Georgia Institute of Technology, Atlanta, Georgia, March 13, 1997
- 36. (with Jeffrey Ehme) "The Elements of Computer Aided Geometric Design Using Maple" (faculty minicourse), Eighth Annual ICTCM (International Conference on Technology in Collegiate Mathematics), Houston, Texas, November 1995
- 37. "Visualising Algebra and Geometry," Spelman Summer Science and Mathematics Institute for High School Teachers, June 21, 1995
- 38. "Media Manipulations of Mathematics," Spelman Summer Science and Mathematics Institute for High School Teachers, June 21, 1995

## Presentations

- "Some Classic Puzzles of Martin Gardner, The Best Friend Mathematics Ever Had," Math Club, Georgia Institute of Technology, Atlanta, Georgia, Nov 25, 2014
- "The Mathematics, Magic & Mystery of Martin Gardner, The Best Friend Mathematics Ever Had," INFORMS Chapter, School of Industrial and Systems Engineering, Georgia Institute of Technology, Atlanta, Georgia, Nov 25, 2014
- "The Mathemagic, Magic & Mystery of Martin Gardner," Math Club, Drexel University, Philadelphia, Pennsylvania, Nov 17, 2014
- 4. "The Mathemagic, Magic & Mystery of Martin Gardner," Math Club, Temple University, Philadelphia, Pennsylvania, Nov 17, 2014
- "The Mathemagic, Magic & Mystery of Martin Gardner," Department of Mathematics Seminar, Marymount University, Arlington, Virginia, Nov 12, 2014
- "The Mathemagic, Magic & Mystery of Martin Gardner," Department of Mathematics Seminar, Morgan State University, Baltimore, Maryland, Sep 4, 2014
- 7. "The Mathemagic, Magic & Mystery of Martin Gardner," Department of Mathematics Seminar, Agnes Scott College, Atlanta, Georgia, Sep 2, 2014
- 8. "The Mathemagic, Magic & Mystery of Martin Gardner," Department of Mathematics Seminar, Spelman College, Atlanta, Georgia, Aug 28, 2014
- "The Mathemagic, Magic & Mystery of Martin Gardner," MAA Mathfest 2014, Portland, Oregon, Thu, Aug 7, 2014
- 10. "Martin Gardner, Rationalist Supreme," Conway Hall Ethical Society, London, UK, Jul 6, 2014
- 11. "Mathemagic with a Deck of Cards," School of Mathematics, University of Edinburgh, Edinburgh, UK, Jul 4, 2014
- 12. "Martin Gardner, Skeptic Supreme," Skeptics in the Pub, Edinburgh, UK, Jul 3, 2014
- (invited, keynote) "Mathemagic with a Deck of Cards," Spring Conference of Maryland Mathematics Association of Two-Year Colleges, Frederick Community College, Frederick, Maryland, May 30, 2014

- 14. (invited, banquet) "Martin Gardner: Man of Mathematics, Magic & Mystery," Northern Virginia Council of Teachers of Mathematics Spring Banquet, Springfield, Virginia, May 8, 2014
- 15. (keynote) "Martin Gardner: Skeptic Supreme," Skepticamp 2014, Atlanta, Georgia, May 2, 2014
- 16. (invited) "Mathematics, Magic & Mystery," American University, Washington, DC, Apr 29, 2014
- 17. (invited) "Martin Gardner: Man of Mathematics, Magic & Mystery," Colloquium, Department of Mathematics, University of Maryland, College Park, Maryland, Apr 18, 2014
- 18. (invited) "Mathemagic with a Deck of Cards," Time Warner Cable Family Friday, Museum of Mathematics, New York, New York, Apr 11, 2014
- 19. (invited) "Mathematical Magic with Cards," Mathematics Awareness Month Google Connected Classrooms Hangout, Apr 8, 2014
- 20. (invited) "Martin Gardner: Man of Mathematics, Magic & Mystery," Pi Mu Epsilon and Upsilon Pi Epsilon Banquet, Mount St. Mary's University, Emmitsburg, Maryland, Apr 6, 2014 (Math Awareness Month talk for inductions)
- 21. (invited, keynote) "Martin Gardner: Man of Mathematics, Magic & Mystery," Allegheny Mountain Section of the MAA, Westminster College, New Wilmington, Pennsylvania, April 4, 2014
- 22. (invited) "'Mathematics, Magic & Mystery'—and the Man Who Brought Them Together," MAA Distinguished Lecture Series, Carriage House, Washington, DC, April 1, 2014
- 23. "Martin Gardner Centennial Initiative," Gathering 4 Gardner 11, Atlanta, Georgia, Mar 22, 2014
- 24. "Martin Gardner-Skeptic Supreme," Dublin Skeptics in the Pub, Dublin, Ireland, Mar 13, 2014
- 25. "Mathemagic with a Deck of Cards," Waterford Institute of Technology, Waterford, Ireland, Mar 13, 2014
- 26. (invited public lecture) "Mathemagic with a Deck of Cards," St. Patrick's College, Drumcondra, Dublin, Ireland, Mar 12, 2014
- 27. "Celebrating Mathematics, Magic & Mystery in 2014–the Legacy of Martin Gardner," DCU, Dublin, Mar 12, 2014
- 28. (invited) "Probabilistic Magic with Cards," St. Patrick's College, Drumcondra, Dublin, Ireland, Mar 12, 2014
- 29. (invited) "Celebrating Mathematics, Magic & Mystery in 2014," Colloquium, St. Mary's College of Maryland, St. Mary's City, Maryland, February 25, 2014
- 30. (invited) "Mathemagic With a Deck of Cards," Math Club, St. Mary's College of Maryland, St. Mary's City, Maryland, February 25, 2014
- 31. (invited) "Mathemagic With a Deck of Cards," Hood College, Frederick, Maryland, February 11, 2014
- 32. (with Bruce Torrence & Eve Torrence) "Martin Gardner's Outreach in his Centennial Year: Mathematics Awareness Month 2014," Joint Mathematics Meeting, Baltimore, Maryland, January 18, 2014
- 33. (with Bruce Torrence & Eve Torrence) "Mathematics Awareness Month 2014: 'Mathematics, Magic, and Mystery'," Joint Mathematics Meeting, Baltimore, Maryland, January 16, 2014
- 34. "Martin Gardner: Skeptic Supreme," National Capital Area Skeptics, Arlington, Virginia, December 14, 2013

- 35. "Mathemagic with a Deck of Cards," Trinity Washington University, Washington, DC, December 3, 2013
- 36. "Celebration of Mind: Connecting Mathematics, Magic and Mystery," Virginia Commonwealth Univ, Virginia, November 22, 2013
- 37. (invited) "Mathemagic with a Deck of Cards," (3 times) Whitman High School, Bethesda, Maryland, November 21, 2013
- 38. "Celebration of Mind: Perpetuating the Legacy of Martin Gardner," George Washington University, Washington, DC, November 12, 2013
- 39. (invited) public lecture co-sponsored by the MAA, "Mathemagic with a Deck of Cards," American University, Washington, DC, November 8, 2013
- 40. "What's the deal? Mathematics inspired by dealing cards into a pile," MD-DC-VA Section of the MAA, Longwood University, Farmville, Virginia, November 2, 2013
- 41. (with Bruce Torrence & Eve Torrence) "Mathematics, Magic, and Mystery," MD-DC-VA Section of the MAA, Longwood University, Farmville, Virginia, November 2, 2013
- 42. (invited) Banquet Address, "The Mathematics, Magic and Mystery of Martin Gardner," MD-DC-VA Section of the MAA, Hampden-Sydney College, Farmville, Virginia, November 1, 2013
- 43. "The Mathematics, Magic and Mystery of Martin Gardner," Washington Math Meetup Group, Martin Luther King Library, Washington, DC, October 29, 2013
- 44. (invited) "Who Is Martin Gardner?," Museum of Mathematics, New York, New York, October 26, 2013
- 45. (invited) "Remembering Martin Gardner," Princeton University, Princeton, New Jersey, October 25, 2013
- 46. (invited) "Mathemagic with a Deck of Cards," Pi Mu Epsilon, Gettysburg College, Pennsylvania, October 22, 2013
- 47. (invited) "Celebration of Mind: Perpetuating the Legacy of Martin Gardner," Department of Mathematics Colloquium, George Mason University, Fairfax, Virginia, October 11, 2013
- 48. "Mathemagic with a Deck of Cards," Spelman College, Atlanta, Georgia, October 4, 2013
- 49. (invited) "Mathemagic with a Deck of Cards," Randolph-Macon College, Ashland, Virginia, September 13, 2013
- 50. (invited, to be given) "Martin Gardner: Skeptic Supreme," Dragoncon, Atlanta, Georgia, September 2, 2013
- 51. (invited) "What's the deal? Mathematics inspired by dealing cards into a pile," MOVES Conference, Museum of Mathematics, New York, New York, August 5, 2013
- 52. "Fitch Cheney's Five Card Trick for Four or Three Cards," session on Recreational Mathematics: New Problems and New Solutions, MAA Mathfest 2013, Hartford, Connecticut, August 1, 2013
- 53. "Mathemagic with a Deck of Cards," Winchester Science Festival, Winchester, Hampshire, UK, July 21, 2013
- 54. "Mathemagic with a Deck of Cards," Centre for Mathematical Sciences, University of Cambridge, Cambridge, UK, July 18, 2013
- 55. "Mathemagic with a Deck of Cards," Sussex Magic Circle, Hassocks, West Sussex, UK, July 17, 2013

- 56. "Mathemagic with a Deck of Cards," Magic at Mile End, Queen Mary, University of London, London, UK, July 16, 2013
- 57. "Martin Gardner—personal reminiscences and Irish connections," Cork Skeptics, Cork, Ireland, July 12, 2013
- 58. (invited) "Puzzles in the Spirit of Martin Gardner" (KSU Math Circle Summer Camp), Kennesaw State University, Kennesaw, Georgia, June 19 2013
- 59. (invited) "Mathemagic with a Deck of Cards" (KSU Math Circle Summer Camp), Kennesaw State University, Kennesaw, Georgia, June 11 2013
- 60. (invited) "Mathemagic with a Deck of Cards" (MathCounts), The Nueva School, Hillsborough, California, May 14, 2013
- 61. (invited) "Mathemagic with a Deck of Cards" (KSU Math Circle), Kennesaw State University, Kennesaw, Georgia, April 17, 2013
- 62. (invited) "Mathemathics, Magic and Mystery," Belvedere College, Dublin, Ireland, March 15, 2013
- 63. "Mathemagic with a Deck of Cards," Mathematical Sciences Seminar, Dublin City University, Dublin, Ireland, March 14, 2013
- 64. "Mathemagic with a Deck of Cards," Department of Mathematics Colloquium, University of Limerick, Ireland, March 13, 2013
- 65. (invited) "Mathemagic with a Deck of Cards," St. Patrick's College, Drumcondra, Dublin, Ireland, March 12, 2013
- 66. (invited) "An Introduction to Non-Euclidean Geometry," St. Patrick's College, Drumcondra, Dublin, Ireland, March 12, 2013
- 67. "Mathemagic with a Deck of Cards," Mathematical Society, Trinity College, Dublin, Ireland, March 11, 2013
- 68. "Gilbreath Shuffle Variations," Joint Mathematics Meeting, San Diego, CA, January 12, 2013
- 69. "Martin Gardner—personal reminiscences and Atlanta connections," Atlanta Skeptics, Atlanta, Georgia, November 17, 2012
- 70. "Mathemagic with a Deck of Cards," *Maths Week Ireland*, Maths Society, National University of Ireland at Maynooth, Ireland, October 19, 2012
- 71. "Martin Gardner—personal reminiscences and Irish connections," *Maths Week Ireland*, Coolock Library, Dublin, Ireland, October 18, 2012
- 72. "Magical surprises with geometry and numbers (and cards)," *Maths Week Ireland*, Coolock Library, Dublin, Ireland, October 18, 2012
- 73. "Martin Gardner—personal reminiscences and Irish connections," *Maths Week Ireland*, Irish Skeptics Society, Dublin, Ireland, October 17, 2012
- 74. "Magical surprises with geometry and numbers (and cards)," *Maths Week Ireland*, Cavan Institute, Cavan, Ireland, October 17, 2012
- 75. "Celebration of Mind: Connecting Mathematics, Magic and Mystery," *Maths Week Ireland*, Cavan Institute, Cavan, Ireland, October 17, 2012
- 76. "Celebration of Mind: Connecting Mathematics, Magic and Mystery," *Maths Week Ireland*, Letterkenny Institute of Technology, Donegal, Ireland, October 16, 2012

- 77. "Magical surprises with geometry and numbers (and cards)," *Maths Week Ireland*, Letterkenny Institute of Technology, Donegal, Ireland, October 16, 2012
- 78. "Magical surprises with geometry and numbers (and cards)," *Maths Week Ireland*, Sligo Vocational College, Sligo, Ireland, October 15, 2012
- 79. "Magical surprises with geometry and numbers (and cards)," *Maths Week Ireland*, The Mercy College, Sligo, Ireland, October 15, 2012
- 80. "Celebration of Mind: Connecting Mathematics, Magic and Mystery," *Maths Week Ireland*, The Mercy College, Sligo, Ireland, October 15, 2012
- 81. (via Skype from Ireland) "Celebration of Mind: The Mathematics, Magic and Mystery of Martin Gardner," Upper Peninsula Regional Meeting, Michigan Section, MAA, Marquette, Michigan, October 12, 2012
- 82. "Celebration of Mind: Perpetuating the Legacy of Martin Gardner," session on *Recreational Mathematics: New Problems and New Solutions*, MAA Mathfest 2012, Madison, Wisconsin, August, 2012
- 83. "Celebration of Mind: The Mathematics, Magic & Mystery of Martin Gardner, Populaerwissenschaftliches Mathematisches Kolloquium, Universitaet Konstanz, Konstanz, Germany, July 4, 2012
- 84. "Celebration of Mind: The Legacy of Martin Gardner," Google Tech Talk, Dublin, Ireland, July 3, 2012
- 85. (invited) "The Mathematics, Magic and Mystery of Martin Gardner," Banquet Talk, 2012 Annual Meeting of the Michigan MAA and MichMATYC, Saginaw Valley State University, Saginaw, Michigan, May 4, 2012
- 86. (invited) "Celebration of Mind: Connecting Mathematics, Magic and Mystery," 14th Annual George Kitchen Memorial Lecture, Kalamazoo College, Kalamazoo, Michigan, May 3, 2012
- 87. (invited) "An Introduction to Image Compression Using Wavelets," Colloquium, Kalamazoo College, Kalamazoo, Michigan, May 3, 2012
- 88. (invited) "Celebration of Mind: an annual romp through recreational mathematics, puzzles and more," Math and Science Magnet Banquet Speaker, North Springs Charter High School, Atlanta, Georgia, April 19, 2012
- 89. (invited) "Mathematics, Magic & Mystery," Mathfest 2012, Walton High School, Atlanta, Georgia, April 14, 2012
- 90. "What Would Martin Gardner Tweet?" Gathering 4 Gardner 10, Atlanta, Georgia, April 1, 2012
- 91. (invited) "Celebration of Mind: The Mathematics, Magic & Mystery of Martin Gardner," Atlanta Fulton County Library, Atlanta, Georgia, March 30, 2012
- 92. "Celebration of Mind: The Mathematics, Magic & Mystery of Martin Gardner," Colloquium, Queens University, Belfast, Ireland, March 12, 2012
- 93. "The Mathematics, Magic & Mystery of Martin Gardner (The best friend mathematics ever had)," Letterkenny Institute of Technology, Letterkenny, Donegal, Ireland, March 12, 2012
- 94. "The Mathematics, Magic & Mystery of Martin Gardner," Celebration of Mind II, Mercer University, Atlanta, Georgia, October 22, 2011
- 95. "The Mathematics, Magic & Mystery of Martin Gardner," Atlanta Science Tavern, Atlanta, Georgia, October 12, 2011

- 96. "Where's the Magic?," session on Offering Students Lessons Beyond Mathematics, Through Mathematics, MAA Mathfest 2011, Lexington, Kentucky, August 5, 2011
- 97. "Mathematics You Get Your Teeth Into—The Math of Food," CEISMC Workshop for Atlanta Public School MPS, Georgia Institute of Technology, Atlanta, Georgia, July 12, 2011
- 98. "Mathematics You Get Your Teeth Into—The Math of Food," CEISMC Workshop for Fulton County high school teachers, Georgia Institute of Technology, Atlanta, Georgia, June 24, 2011
- 99. "Mathemagic with a Deck of Cards," CEISMC Workshop for Fulton County high school teachers, Georgia Institute of Technology, Atlanta, Georgia, June 21, 2011
- 100. (Invited) "Celebration of Mind: The Mathematics, Magic & Mystery of Martin Gardner," Department of Mathematics Colloquium, Waterford Institute of Technology, Waterford, Ireland, May 18, 2011
- 101. "Fibulous Fun With Bunny Rabbits, Pine Cones, Daisies and a Packet of Cards," Bealtaine Festival of Outdoor Science, Ballymacarbry Primary School, Co. Waterford, Ireland, May 16, 2011
- 102. "Accessible shortcuts to inaccessible lengths: how to estimate the heights and widths of things without actually getting your hands on them," Bealtaine Festival of Outdoor Science, Clonmel High School, Co. Tipperary, Ireland, May 16, 2011
- 103. "Celebration of Mind: The Mathematics, Magic & Mystery of Martin Gardner," Department of Mathematics Colloquium, University College Dublin, Dublin, Ireland, May 9, 2011
- 104. "The Mathematics, Magic & Mystery of Martin Gardner (the best friend mathematics ever had),"
  Department of Mathematics Colloquium, University of Limerick, Ireland, December 15, 2010
- 105. "The Mathematics, Magic & Mystery of Martin Gardner (the best friend mathematics ever had)," Department of Mathematics Colloquium, National University of Ireland at Maynooth, Ireland, December 13, 2010
- 106. "Celebration of Mind: The Mathematics, Magic & Mystery of Martin Gardner," Department of Mathematics Colloquium, Emory University, Atlanta, Georgia, October 29, 2010
- 107. (invited) "Martin Gardner: Man of Mathematics, Magic & Mystery," Sixth Annual Claude B. Dansby Lecture, Morehouse College, Atlanta, Georgia, October 21, 2010
- 108. "Celebration of Mind: The Mathematics, Magic & Mystery of Martin Gardner," Public Lecture, Georgia Institute of Technology, Atlanta, Georgia, October 21, 2010
- 109. (invited) "Mathemagic with a Deck of Cards," Mathematics Club, Clayton State University, Georgia, October 9, 2010
- 110. "The Life, Loves and Legacy of Martin Gardner," Tennessee Mathematics Teachers Association / Mathematics Teachers of Tennessee Northwest Fall Conference, University of Tennessee at Martin, September 25, 2010
- 111. (invited Keynote Speaker) "A Little Mathemagic with a Deck of Cards," Tennessee Mathematics Teachers Association / Mathematics Teachers of Tennessee Northwest Fall Conference, University of Tennessee at Martin, September 24, 2010
- 112. "Toe Tack Trick," Gathering 4 Gardner 9, Atlanta, Georgia, March 27, 2010
- 113. "Image Compression Introduction to Wavelets," session on *Undergraduate Computational Education*, 34th SIAM Southeastern-Atlantic Section Conference, North Carolina State University, Raleigh, North Carolina, March 20, 2010
- 114. (invited) "Mathemagic with a Deck of Cards," AWM Student Chapter Excursion in Math, Emory University, Atlanta, Georgia, November 14, 2009

- 115. (invited) "Mathemagic with a Deck of Cards on the Interval Between 5.700439718 and 8065817517094387857166063685640376697528950544088327782400000000000," MAA Lecture for Students, MAA Mathfest 2009, Portland, Oregon, August 6, 2009
- 116. (invited) "Mathemagical Principles (Old and New) Applied to Card Tricks," EDGE Program, Spelman College, Atlanta, Georgia, June 23, 2009
- 117. (invited) "An Image Compression Introduction to Wavelets," Virginia Military Institute, Lexington, Virginia, April 9, 2009
- 118. (invited) "New Mathemagical Principles Applied to Card Tricks," National University of Ireland, Galway, Ireland, March 12, 2009
- 119. (invited) "An Image Compression Introduction to Wavelets," Mathematical Sciences Seminar, Dublin City University, Dublin, Ireland, March 10, 2009
- 120. (invited) "A Hands-On Approach to Geometry," St. Patrick's College, Drumcondra, Dublin, Ireland, March 10, 2009
- 121. (invited) "New Mathemagical Principles Applied to Card Tricks," Lecturer at MAA Alabama State Dinner, Jacksonville State University, Jacksonville, Alabama, February 27, 2009
- 122. (invited) "An Image Compression Introduction to Wavelets" (at MAA session on Wavelets in Undergraduate Education), Joint Mathematics Meeting, Washington, DC, January 6, 2009
- 123. (invited, with Tim Chartier) "Six Fibs and Videotape" (at MAA session on *Performing Mathematics*), Joint Mathematics Meeting, Washington, DC, January 5, 2009
- 124. (invited) "Mathemagical Card Tricks," Sonia Kovalevsky High School Mathematics Day, Emory University, Atlanta, Georgia, May 8, 2008
- 125. "How to Perform Mathematical Miracles with a Deck of Cards," Virginia Tech, Blacksburg, Virginia, April 30, 2008
- 126. (invited) "Mathemagic with a Deck of Cards," Virginia Military Institute, Lexington, Virginia, April 29, 2008
- 127. "New Mathemagical Principles Applied to Card Tricks," Carleton College, Northfield, Minnesota, April 17, 2008
- 128. (invited) "New Mathemagical Principles Applied to Card Tricks," University of St. Thomas, St. Paul, Minnesota, April 16, 2008
- 129. (invited) "The Curves and Surfaces of the Digital Age," University of St. Thomas, St. Paul, Minnesota, April 15, 2008
- 130. "Mathemagic with a Deck of Cards," University of Oklahoma, Norman, Oklahoma, March 31, 2008
- 131. "An Introduction to Wavelets via Image Compression," University of Oklahoma, Norman, Oklahoma, March 31, 2008
- 132. "His Genetic Evolution—One to Eight Inclusive (The g4g8 Bracelet)," Gathering 4 Gardner 8, Atlanta, Georgia, March 30, 2008
- 133. "How to Perform Mathematical Miracles with a Deck of Cards," Dublin City University, Dublin, Ireland, February 12, 2008
- 134. "Mathemagic with a Deck of Cards," St. Patrick's College, Drumcondra, Dublin, Ireland, February 12, 2008

- 135. "An Introduction to Wavelets via Image Compression," Maths Society, University College Dublin, Dublin, Ireland, February 11, 2008
- 136. "An Earnest, Hamming Way to do Magic," Shannon Institute—Algebra Seminar, University College Dublin, Dublin, Ireland, February 11, 2008
- 137. "An Image Compression Introduction to Wavelets," Department of Mathematics Colloquium, Queens University, Belfast, Ireland, February 8, 2008
- 138. "An Image Compression Introduction to Wavelets," Department of Mathematics Seminar, University of Limerick, Limerick, Ireland, February 5, 2008
- 139. "An Image Compression Introduction to Wavelets," Applied Mathematics Seminar, University College Cork, Cork, Ireland, January 24, 2008
- 140. (invited) "Mathemagic with a Deck of Cards," Belvedere College, Dublin, Ireland, January 22, 2008
- 141. (invited) "An Introduction to Image Compression," Belvedere College, Dublin, Ireland, January 22, 2008
- 142. (with Neil Calkin) "Bracelets with Magic Applications," Joint Mathematics Meeting, San Diego, California, January 9, 2008
- 143. (with Ed Burger) "Re-thinking How We Introduce Mathematics to First Year Students," Joint Mathematics Meeting, San Diego, California, January 9, 2008
- 144. (invited) Public Interview (as Leonhard Euler) with Robert Schneider, Joint Mathematics Meeting, San Diego, California, January 6, 2008
- 145. "Using Mathematics in the Service of Magical Entertainment," Faculty Research Day, Spelman College, Atlanta, November 2, 2007
- 146. (invited) "Brain Tickling Mathematical Card Tricks," Atlanta Metropolitan College Math Club, Atlanta, Georgia, October 25, 2007
- 147. (invited) "Circular Reasoning in Mathematical Magic," 22nd Clemson Mini-Conference on Discrete Mathematics and Algorithms, Clemson University, Clemson, South Carolina, October 11, 2007
- 148. "Mathematical Card Tricks to Tickle the Brain" UGA Math Club, Athens, Georgia, September 25, 2007
- 149. "Gibonacci Magic" (in Advances in Recreational Mathematics session), MAA Mathfest 2007, San Jose, California, August 5, 2007
- 150. "Circling the (Magic) Square" (in Advances in Recreational Mathematics session), MAA Mathfest 2007, San Jose, California, August 5, 2007
- 151. "Exploring the Composition Laws of Small Groups with a Deck of Cards" (in Fun and Innovative Teaching Techniques for an Abstract Algebra Class session), MAA Mathfest 2007, San Jose, California, August 4, 2007
- 152. (invited) "Image Compression," Walton High School MathFest, Marietta, Georgia, April 21, 2007
- 153. (invited) "Mathematical Card Tricks," Walton High School MathFest, Marietta, Georgia, April 21, 2007
- 154. (invited) "New Mathematical Principles in Card Magic," (Mini-Lecture), Georgia Magic Club International Brotherhood of Magicians Ring 9, Atlanta, Georgia, April 16, 2007
- 155. "Mathematics—A Minority Interest? Countering 'I Hate Math' for the Majority of Students," Spelman College's First Annual Teaching Day, Atlanta, Georgia, February 21, 2007

- 156. "Impossible Prediction Tricks," Department of Mathematics Seminar, Spelman College, Atlanta, Georgia, February 15, 2007
- 157. "The Gilbreath Principle in Mathematical Magic," Joint Mathematics Meeting, New Orleans, Louisiana, January 6, 2007
- 158. "Better Poker Hands Guaranteed" (in MAA Entertaining with Math session), Joint Mathematics Meeting, New Orleans, Louisiana, January 5, 2007
- 159. "When I'm Sixty-four: How New and Old Mathemagical Discoveries Can Be Combined to Ensure Winning Poker Hands," Department of Mathematics Seminar, Virginia Tech, Blacksburg, Virginia, June 23, 2006
- 160. (with Jeffrey Ehme) "Poker Faced," MAA Southeastern Section and SIAM Southeastern Atlantic Section Meeting, Auburn University, Auburn, Alabama, March 31, 2006
- 161. "Three Proofs and Three Variations of the Low Down Triple Dealing Principle," MAA Southeastern Section and SIAM Southeastern Atlantic Section Meeting, Auburn University, Auburn, Alabama, March 31, 2006
- 162. "Poker Faced," Gathering 4 Gardner 7, Atlanta, Georgia, March 16, 2006
- 163. "Fab Math" (in *Mathematics and Popular Culture* session), Joint Mathematics Meeting, San Antonio, Texas, January 14, 2006
- 164. (with Jeffrey Ehme) "Poker Faced," Joint Mathematics Meeting, San Antonio, Texas, January 13,  $2006\,$
- 165. (with Jeffrey Ehme) "An Earnest, Hamming Way to do Magic," Joint Mathematics Meeting, San Antonio, Texas, January 13, 2006
- 166. (invited) "A Temporary Solution to a Permanent Problem?" (in *Permanent Use of Temporary Faculty: The Status of Non-ladder Faculty in Departments of Mathematics* session, sponsored by the Joint Committee on Teaching Assistants and Part-Time Instructors (TA/PTI)), Joint Mathematics Meeting, San Antonio, Texas, January 12, 2006
- 167. "An Introduction to Wavelets via Image Compression," Temple University, Philadelphia, Pennsylvania, November 22, 2005
- 168. (invited) "Magic with Math–Eine Kleine Nachtmagie," BAMA (Bay Area Mathematical Adventures) Lecture, Santa Clara University, Santa Clara, California, November 19, 2005
- 169. "Mathemagical Drama: It's As Easy As Aodh, Bea, C & D," San Jose State University, San Jose, California, November 18, 2005
- 170. "Wavelets made easy," MAA Seaway Section Meeting, SUNY Geneseo, Geneseo, New York, October 29, 2005
- 171. (invited Banquet Speaker) "Eine Kleine Nachtmagie," MAA Seaway Section Meeting, SUNY Geneseo, Geneseo, New York, October 28, 2005
- 172. "Questionable mathematics with a shuffled deck," MAA Mathfest 2005, Albuquerque, New Mexico, August, 2005
- 173. "Mathematical Idol 2005" (at session on Nifty Examples in Discrete Math), MAA Mathfest 2005, Albuquerque, New Mexico, August, 2005
- 174. (with Sylvia Bozeman) "Experiences in Attracting Women to Mathematics at Spelman College" (at session on Innovative Mathematics Majors in Small/Medium Departments), MAA Mathfest, Albuquerque, New Mexico, August 4, 2005 (http://persweb.wabash.edu/facstaff/axtellm/Curriculum%20Special%20Session/Colm.html)

- 175. "Mathematical Principles in Card Tricks" (Mini-Lecture), Georgia Magic Club International Brotherhood of Magicians Ring 9, Atlanta, Georgia, January 17, 2005
- 176. "An unbeatable deal in card tricks," Joint Mathematics Meeting, Atlanta, Georgia, January 5, 2005
- 177. "An ESPeriment with cards," MAA Mathfest 2004, Providence, Rhode Island, August 14, 2004
- 178. (invited) "Mathematical Card Tricks," Emory Math Club, Emory University, Atlanta, Georgia, April 15, 2004
- 179. "How to have fun with a deck of cards," Dublin Area Mathematical Colloquium, University College Dublin, Dublin, Ireland, March 29, 2004
- 180. "Craggy Island Connivery (aka How to perform mathematical miracles with a deck of cards!)," Maths Society, University College Dublin, Dublin, Ireland, March 25, 2004
- 181. "Mathematical Magic 101," Faculty Council Brown Bag Lunch Series, Spelman College, Atlanta, Georgia, Oct 14, 2003
- 182. (invited) "How to Pack More Into Your (Digital) Suitcase (An Introduction to Wavelets)," Saint Louis University, Madrid, Spain, April 9, 2003
- 183. (with Jeffrey Ehme, Aminah Perkins and Andrea Warren) "A Trick for Introducing Algebraic Coding Theory," 81st Anniversary MAA Southeastern Section Meeting, Clemson University, Clemson, South Carolina, March 21, 2003
- 184. "Writing in Math Courses," Writing Across the Curriculum Faculty Seminar, Georgia State University, Atlanta, Georgia, May 13, 2002
- 185. (invited) "An Introduction to Wavelets via Image Compression," *Math Jubilee*, University of Georgia, Athens, Georgia, April 13, 2002
- 186. (with John H. Conway) "Mathematical Card Tricks," at Gathering 4 Gardner 5, Atlanta, Georgia, April 7, 2002
- 187. "Five Card Tricks Using Discrete Math," Department of Mathematics Seminar, Spelman College, February 26, 2002
- 188. (invited) "Mathematical Magic: Card Tricks and More," North Georgia College & State University, Dahlonega, Georgia, December 6, 2001
- 189. (invited) "Wavelets and Image Compression," Samford University, Birmingham, Alabama, October 11, 2001
- 190. (with Jeffrey Ehme) "Morphing Erdös Into Card Tricks," MAA Mathfest '01, Madison, Wisconsin, August 2, 2001
- 191. (with Jeffrey Ehme and Ron Gould) "The Further Adventures of Two Mathemagicians in Madison," MAA Mathfest '01, Madison, Wisconsin, August 2, 2001
- 192. (invited) "Mathematical Card Tricks", Kappa Mu Epsilon Banquet Speaker, Georgia College and State University, Milledgeville, Georgia, April 11, 2001
- 193. "Using WebCT in a math for non-math-majors course", 13th Annual ICTCM (International Conference on Technology in Collegiate Mathematics), Atlanta, Georgia, November 19, 2000
- 194. "Card Tricks Anybody Can Do", Department of Mathematics Seminar, Spelman College, October 24, 2000
- 195. "Fitch Cheney's Five-Card Trick and Generalizations", MAA Mathfest 2000, UCLA, Los Angeles, California, August 3, 2000

- 196. (invited) "Using the Web in a Course," Project NExT special session, UCLA, Los Angeles, California, August 2, 2000
- 197. (invited) "Fitch Cheney's Five-Card Trick and Generalizations", MAA Oklahoma-Arkanasas Section Meeting, Arkanasas Technical University, Russellville, Arkanasa, April 1, 2000
- 198. "Using the Web for a math for non-math-majors course", 79th Annual MAA Southeastern Section Meeting, UNC Charlotte, Charlotte, North Carolina, March 11, 2000
- 199. "Fitch Cheney's Five-Card Trick and Generalizations", 79th Annual MAA Southeastern Section Meeting, UNC Charlotte, Charlotte, North Carolina, March 10, 2000
- 200. "Using WebCT in a math for non-math-majors course", 12th Annual ICTCM (International Conference on Technology in Collegiate Mathematics), Burlingame, California, November 5, 1999
- 201. "Multimedia and Multidisciplinary Mathematical Explorations", 12th Annual ICTCM (International Conference on Technology in Collegiate Mathematics), Burlingame, California, November 5, 1999
- 202. "Applied Curves & Surface Explorations with Maple", MAA Mathfest '99, Providence, Rhode Island, August 2, 1999
- 203. "Using Matlab to Explore Topics in Image Processing", MAA Mathfest '99, Providence, Rhode Island, August 2, 1999
- 204. " $a^2 + b^2 = c^2$ ? A down-to-earth look at Pythagoras' theorem", MAA Mathfest '99, Providence, Rhode Island, August 1, 1999
- 205. "An Introduction to Wavelets via Image Compression," Fourier Transforms and Wavelet Theory Workshop, Spelman College, June 2, 1999
- 206. "Image Acquisition, Image Processing and Remote Sensing", 9th Annual Environmental Awareness Week, Spelman College, April 24, 1999
- 207. "Multimedia and Multidisciplinary Mathematical Explorations", NCUR '99 (Thirteenth National Conference on Undergraduate Research), University of Rochester, Rochester, New York, April 8, 1999
- 208. (invited) "The Curves and Surfaces of the Digital Age", 16th Annual Conference on Undergraduate Mathematics, Rose-Hulman Institute of Technology, Terre Haute, Indiana, March 20, 1999
- 209. (invited) "Wavelets-a new tool for imaging, graphics and Hollywood", 16th Annual Conference on Undergraduate Mathematics, Rose-Hulman Institute of Technology, Terre Haute, Indiana, March 19, 1999
- 210. " $a^2 + b^2 = c^2$ ? A down-to-earth look at Pythagoras theorem," MAA Southeastern Section Meeting, Rhodes College, Memphis, Tennessee, March 12, 1999
- 211. (invited) "An Introduction to Wavelets and Image Compression," Department of Mathematics Colloquium Lecture, Clark Atlanta University, Atlanta, Georgia, February 10, 1999
- 212. "Geometry is Alive-Long Live Geometry!", Geometry In The Classroom In The Next Millennium, MAA Contributed Paper Session, Joint Mathematics Meeting, San Antonio, Texas, January 14, 1999
- 213. (with John Rossi) "Why teach Singular Value Decomposition?", Eleventh Annual ICTCM (International Conference on Technology in Collegiate Mathematics), New Orleans, Louisiana, November 21, 1998
- 214. (with Jeffrey Ehme) "Curves and Surfaces Using Maple," Annual ICTCM (International Conference on Technology in Collegiate Mathematics), New Orleans, Louisiana, November 21, 1998

- 215. "Retraining Management and Workers: New Production Line and Quality Control Techniques That Work," 77th Annual MAA Southeastern Section Meeting, College of Charleston, Charleston, South Carolina, March 14, 1998
- 216. "Getting Images On and Off the World Wide Web," 77th Annual MAA Southeastern Section Meeting, College of Charleston, Charleston, South Carolina, March 14, 1998
- 217. "To multiply, or not: that is the question," 77th Annual MAA Southeastern Section Meeting, College of Charleston, Charleston, South Carolina, March 13, 1998
- 218. (invited) "An Introduction to Wavelets", University College Galway, Galway, Ireland, March 4, 1998
- (invited) "Matrix Tricks for Image Compression", Letterkenny Institute of Technology, Letterkenny, Donegal, Ireland, March 3, 1998
- 220. (invited) "An Introduction to Wavelets", University of Ulster Magee, Derry, Northern Ireland, March 2, 1998
- 221. (invited) "An Introduction to Wavelets", University College Dublin, Dublin, Ireland, February 27, 1998
- 222. "Exploring Frontiers in Geometry-Looking Back and Looking Forward", part of Exploring New Frontiers in Geometry: in the World Around Us and in Our Classrooms, a symposium at the American Association for the Advancement of Science AMSIE'98, Philadelphia, Pennsylvania, February 13, 1998
- 223. "An Introduction to Wavelets", University College Dublin, Dublin, "Using Wavelets to Speed Up Image Transmission on the Web," Department of Mathematics & Computer Science, Georgia College and State University, Milledgeville, Georgia, September 23, 1997
- 224. "Undergraduate Research in Mathematics with Multimedia Applications," MAA Mathfest '97, Atlanta, Georgia, August 3, 1997
- 225. (with David Henderson & Daina Taimina) "Living Geometry for Liberal Arts Majors: Hand-on and Discovery-based Approaches," MAA Mathfest '97, Atlanta, Georgia, August 2, 1997
- 226. "Wavelets," ATLAST Developer's Workshop, University of California at San Diego, La Jolla, California, June 25–28, 1997
- 227. "Geometry for Globe Dwellers in the 21st Century," Tenth Annual Mathematics Conference at DeKalb College, Clarkston, Georgia, May 3, 1997
- 228. "Explorations at the Interface of Mathematics and Computer Science," Faculty Undergraduate Research Network Forum, NCUR '97 (Eleventh National Conference on Undergraduate Research), University of Texas at Austin, Texas, April 24, 1997
- 229. "Digital Image Analysis in Environmental Sciences," 7th Annual Environmental Awareness Week, Spelman College, Atlanta, Georgia, April 22, 1997
- 230. (with John Rossi & Richard Elderkin) "ATLAST-A New Approach To Singular Value Decomposition," 75th Anniversary MAA Southeastern Section Meeting, Spelman College & Georgia Institute of Technology, Atlanta, Georgia, March 14, 1997
- 231. (invited) "Wavelets Made Easy," Department of Mathematics, The Citadel, Charleston, South Carolina, February 25, 1997
- 232. "Introduction to Wavelets," Department of Mathematics, Spelman College, Atlanta, Georgia, February 11, 1997

- 233. Richard Elderkin (with Colm Mulcahy & John Rossi) "Singular Value Decomposition as a Last Lecture for Linear Algebra Courses," Joint Mathematics Meeting, San Diego, California, January 8, 1997
- 234. (invited) "An Introduction to Wavelets via Image Compression," Department of Mathematics, Emory University, Atlanta, Georgia, December 6, 1996
- 235. "Image Compression via Wavelets," Ninth Annual ICTCM (International Conference on Technology in Collegiate Mathematics), Reno, Nevada, November 9, 1996
- 236. (with John Rossi & Richard Elderkin) "Singular Decomposition Made Easy," Ninth Annual ICTCM (International Conference on Technology in Collegiate Mathematics), Reno, Nevada, November 9, 1996
- 237. (with Jeffrey Ehme) "Computer Aided Geometric Design," Ninth Annual ICTCM (International Conference on Technology in Collegiate Mathematics), Reno, Nevada, November 8, 1996
- 238. "Rational Points On Elliptic Curves," Ninth Annual ICTCM (International Conference on Technology in Collegiate Mathematics), Reno, Nevada, November 8, 1996
- 239. (invited) "Image Compression Using Wavelets," Department of Mathematics, Carnegie Mellon University, Pittsburgh, Pennsylvania, June 18, 1996
- 240. "Matrices and the World Wide Web," Ninth Annual Mathematics Conference at DeKalb College, Clarkston, Georgia, April 27, 1996
- 241. "Wavelets Made Easy," Mathematical Association of America Regional Meeting, University of Alabama in Huntsville, Huntsville, Alabama, April 12, 1996
- 242. "Image Compression Using Wavelets," Eighth Annual ICTCM (International Conference on Technology in Collegiate Mathematics), Houston, Texas, November 1995
- 243. "Rational Points on Elliptic Curves," Eighth Annual ICTCM (International Conference on Technology in Collegiate Mathematics), Houston, Texas, November 1995
- 244. "Using Maple to Explore The Basics of Computer Aided Geometric Design," SIAM Geometric Design Meeting, Nashville, Tennessee, November 1995
- 245. "Using Maple to Explore The Basics of Computer Aided Geometric Design," ISSAC (International Symposium on Symbolic and Algebraic Computation), Concordia University, Montreal, Quebec, Canada, July 12, 1995
- 246. "Getting The Picture-The Basics Of Image Processing," Eighth Annual Mathematics Conference at DeKalb College, Clarkston, Georgia, April 29, 1995
- 247. "Computer Aided Geometric Design-A Model For An Undergraduate Seminar," Faculty Undergraduate Research Network Forum, NCUR'95 (Ninth National Conference on Undergraduate Research), Union College, Schenectady, New York, April 21, 1995
- 248. "The Mathematics of Computer Graphics," Center for Scientific Applications of Mathematics Faculty Seminar, Spelman College, November 22, 1994
- 249. "The Mathematical Elements Of Computer Aided Geometric Design," Seventh Annual ICTCM (International Conference on Technology in Collegiate Mathematics), Orlando, Florida, November 19, 1994
- 250. "The Representation Theorem," AMS Meeting, University of Chicago, Chicago, Illlinois, May 1989
- 251. (invited) "Spaces of Signatures," conference on Quadratic Forms and Real Algebraic Geometry, Oregon State University, Corvallis, Oregon, July 24–26, 1986

252. "Quadratic Forms & Valuations," Department of Mathematics Colloquium, Kent State University, Kent, Ohio, October 14, 1983

## Workshops/ Minicourses/ Short Courses attended

- "Heavenly mathematics: The forgotten art of spherical trigonometry" (MAA minicourse), Joint Mathematics Meeting, San Diego, California, January 10 & 12, 2013
- "Visualizing projective geometry through photographs and perspective drawings" (MAA minicourse), Joint Mathematics Meeting, San Diego, California, January 9 & 11, 2013
- "Algebraic Number Theory" (MAA/PREP workshop), Williams College, Williamstown, Massachusetts, June 27==July 1, 2010
- 4. "Mathematics and Politics" (MAA/PREP workshop), Williams College, Williamstown, Massachusetts, June 15-20, 2008
- 5. "Implementing Biology Across the Mathematics Curriculum," (MAA Short Course), MAA Mathfest 2007, San Jose, California, August 1–2, 2007
- 6. "Wavelets and Applications—A Multi-Disciplinary Undergraduate Course with an Emphasis on Scientific Computing" (MAA/PREP workshop), University of St. Thomas, St. Paul, Minnesota, June 7–10, 2007
- 7. "Over the Fence: Mathematicians and Biologists Talk About Bridging the Curricular Divide" (workshop), Mathematical Biosciences Institute, The Ohio State University, Ohio, June 1–2, 2007
- 8. "More Music and Mathematics" (MAA minicourse), Joint Mathematics Meeting, New Orleans, Louisiana, January 6 & 8, 2007
- 9. "Computational and Mathematical Biology" (MAA/PREP workshop), Sweet Briar College, Amherst, Virginia, June 18–23, 2006
- 10. "Bio 2010: How Genes Act in Populations" (Faculty Resource Network Summer Seminar), NYU, New York, New York, June 12–16, 2006
- 11. "Crytography, Security and the Internet," (MAA Shortcourse), MAA Southeastern Section and SIAM Southeastern Atlantic Section Meeting, Auburn University, Auburn, Alabama, March 31, 2006
- 12. "Geometry with History for Teaching Teachers" (MAA minicourse), MAA Mathfest, Albuquerque, New Mexico, August 5–6, 2005
- 13. "The Mathematics of Presidential and Other Elections" (MAA minicourse), MAA Mathfest, Albuquerque, New Mexico, August 4–6, 2005
- 14. "Teaching a Course in the History of Mathematics" (MAA minicourse), MAA Mathfest, Albuquerque, New Mexico, August 4–5, 2005
- 15. "Interactive Internet-based Multivariable Calculus" (MAA/PREP workshop), Brown University, Providence, Rhode Island, June 26–29, 2005
- 16. "Bio 2010: Integrative Approaches to Teaching Science" (Faculty Resource Network Summer Seminar), NYU, New York, New York, June 6–10, 2005
- 17. "Fair Enough? Mathematics of Equity" (MAA minicourse), Joint Mathematics Meeting, Atlanta, Georgia, January 6 & 8, 2005
- 18. "Teaching a Galois Theory for Undergraduates" (MAA minicourse), Joint Mathematics Meeting, Atlanta, Georgia, January 5 & 7, 2005

- 19. AMS "Workshop for Department Chairs and Department Leaders," Atlanta, Georgia, January 4, 2005
- 20. Acrobat/WebCT Workshop, Spelman College, June 3, 2002
- 21. "Financial Mathematics" (MAA minicourse), Joint Mathematics Meeting, San Diego, California, January 7–9, 2002
- 22. "Coding Theory" (MAA Short Course), UCLA, Los Angeles, California, August 1–2, 2000
- 23. Bush Faculty Development Workshop, Spelman College, August 16–25, 1999
- 24. Collaboratives to Integrate Research and Education (CIRE), Atlanta, Georgia, December 10–11, 1998
- 25. "Writing to Learn in the Disciplines," Comprehensive Writing Center Faculty Development Workshop, Spelman College, May 27-31, 1997
- 26. "ATLAST Developers," NSF Undergraduate Faculty Enhancement Workshop on Teaching of Linear Algebra, University of Washington, Seattle, Washington, August 13-16, 1996
- 27. "Dynamic Geometry Lab with Sketchpad" (MAA Minicourse), MAA Mathfest '96, University of Washington, Seattle, Washington, August 11-12, 1996
- 28. "Discovering the performer in you: An improv teaching workshop," MAA Workshop, MAA Mathfest '96, University of Washington, Seattle, Washington, August 11, 1996
- 29. "Teaching Undergraduate Geometry," NSF Undergraduate Faculty Enhancement Workshop, Cornell University, Ithaca, New York, June 10-15, 1996
- 30. "Digital Image Processing with Mathematica," Eighth Annual ICTCM (International Conference on Technology in Collegiate Mathematics), Houston, Texas, November 18, 1995
- 31. "Grasping Handle Graphics," Matlab Conference, Cambridge, Massachusetts, October 16, 1995
- 32. "Image Processing," Matlab Conference, Cambridge, Massachusetts, October 16, 1995
- 33. "Digital Signal Processing," Matlab Conference, Cambridge, Massachusetts, October 17, 1995
- 34. "Wavelets," Matlab Conference, Cambridge, Massachusetts, October 17, 1995
- 35. "Programming with OpenGL: an Introduction," ACM Siggraph '95 Conference, Los Angeles, California, August 6, 1995
- 36. "Wavelets and Their Applications to Computer Graphics," ACM Siggraph '95 Conference, Los Angeles, California, August 7, 1995
- 37. "Programming Open Inventor: an Object-Oriented OPenGL Toolkit," ACM Siggraph '95 Conference, Los Angeles, California, August 8, 1995
- 38. "ATLAST," NSF Undergraduate Faculty Enhancement Workshop on Teaching Linear Algebra, Seattle University, Seattle, Washington, June 21–24, 1995
- 39. "Wavelets," SIAM-SEAS Regional Meeting, The Citadel, Charleston, South Carolina, March 24, 1995
- 40. "Basic Issues in Computer Aided Visualization," The Geometry Center, Minneapolis, Minnesota, August 13-14, 1994
- 41. "Wavelets," University of Alberta, Edmonton, Alberta, Canada, June 13-14, 1994

42. "Computer Graphics," Boeing Computer Services Faculty Development Workshop, Clark Atlanta University, Atlanta, Georgia, May 17–20, 1994

#### **Professional Service**

- 1. Advisory Board, National Museum of Mathematics, 2014–
- 2. Co-chair, Mathematics Awareness Month 2014 Committee, 2013–2014
- 3. Chair, Martin Gardner Centennial Committee, 2013-2014
- 4. Guest blogger at (Scientific American), 2013–
- 5. Blogger at (Huffington Post), 2012-
- 6. Bi-monthly columnist (Card Colm) at MAA.org, 2004–2014
- 7. MAA's Math Horizons Editorial Board, 2003–2008, 2014–
- 8. Consultant and Mentor for Project NExT, 2008–
- 9. MAA Committee on the Participation of Women, 2012–2015
- 10. MAA Subcommittee on Short Courses, 2007–2013
- 11. MAA Committee on Minority Participation in Mathematics, 2006–2012
- 12. MAA Focus Editorial Board, 2003–2014
- 13. Gathering 4 Gardner Outreach Diversity Committee, 2012-
- 14. Gathering 4 Gardner Committee, 2010-
- 15. Celebration of Mind Committee, 2010-
- 16. MAA Online Editorial Board, 2003–2007
- 17. MAA Mathfest 2004 (Providence, RI) Program Committee (proposed 2 of the 3 plenary speakers)
- 18. MAA Minicourse Committee, 2000–2006 (Local organizer Atlanta meeting, January 2005)
- 19. Consultant for Project NExT, 1997–2002
- 20. Proposed and organized (with David Henderson and Barry Schiller) contributed paper session on "Geometry In The Classroom In The Next Millennium" at the Joint Winter Meeting, San Antonio, Texas, January 13–16, 1999
- 21. (with David Henderson) Organizer of Exploring New Frontiers in Geometry: in the World Around Us and in Our Classrooms, a whole-day symposium at the American Association for the Advancement of Science's Annual Meeting and Science Innovation Exposition, Philadelphia, February 13, 1998
- 22. (with Farid Dowla) Organizer of Wavelets: The Latest Big Splash in Science, Engineering, Imaging and Graphics, a half-day symposium at the American Association for the Advancement of Science's Annual Meeting and Science Innovation Exposition, Philadelphia, February 17, 1998
- 23. Co-organized and ran a special two-day session on "Quadratic Forms and Real Algebraic Geometry" during the AMS meeting at the University of Chicago, May 1989

#### Community Service

- 1. AIDS Walk Atlanta, 1997– (walker, team leader and fundraiser)
- 2. Volunteer and airshifter, WRFG Atlanta, 89.3 FM, non-commercial community radio, 1989-1991, 1995-2001 and 2005-2013; station webmaster, 1999-2001
- 3. Project Magic volunteer, 2002–2003 (performed magic in hospitals)
- 4. Habitat for Humanity, 1997–2002 (Faculty advisor to Spelman student chapter 1999–2002, Faculty & Staff volunteer coordinator 2000–2002 and 2003–2004)

December 12, 2014