

Stephen F. Kennedy
Curriculum Vitae

Mathematics Department
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EDUCATION

1987–1988	University of Texas at Austin	1980–1982	Boston University
1982–1987	Northwestern University		B.A., Mathematics, May 1982
	Ph.D., Mathematics, June 1988	1978–1980	Stonehill College
	M.A., Mathematics, June 1984		

EMPLOYMENT

2004– Carleton College, Professor of Mathematics, Department Chair 2007–2011
1998–2004 Carleton College, Associate Professor of Mathematics
1994–1998 Carleton College, Assistant Professor
1991–1994 Saint Olaf College, Assistant Professor
1989–1991 University of Delaware, Post-Doctoral Visitor
1988–1989 Loyola University of Chicago, Visiting Assistant Professor

COURSES TAUGHT AT CARLETON

Introduction to Mathematics, Calculus 1, 2, and 3, Calculus with review, Mathematical Modeling, Ordinary Differential Equations, Geometries, Chaotic Dynamical Systems, History and Philosophy of Mathematics (IGS), Abstract Algebra, Probability and Statistics, Number Theory, Linear Algebra, Real Analysis, Mathematics and Democracy, Partial Differential Equations, Computational Number Theory, Lovesong of the Electric Bear (Theater), Complex Analysis, Seminar in Symmetry Independent Studies: Topology, History of Mathematics, Philosophy of Mathematics, Financial Mathematics 1 and 2, Mathematical Methods for Computer Graphics 1 and 2, Galois Theory, Mathematical Writing, Ethnomathematics, Planar Symmetries

RESEARCH INTERESTS Dynamical Systems, Topology, Geometry, History of Mathematics

PUBLICATIONS: Book, Magazine

1. *The Edge of the Universe*, Mathematical Association of America, 2006. Jointly edited with Deanna B. Haunsperger
2. *Math Horizons*, vols. 6: 3, 4, 7–10, 11: 1, 2, Mathematical Association of America, 1999–2003. Jointly edited with D.B. Haunsperger.

Articles: Research, Expository, Pedagogical

1. Review of *Musings of the Masters*, *The American Mathematical Monthly*, June-July 2006, pp. 575-580.
2. Review of *Turing: A Novel about Computation*, *The American Mathematical Monthly*, January 2005, pp. 95–98.
3. Review of *The Art of the Infinite*, MAA Online, May 2004.
4. Review of *The Millennium Problems: The Seven Greatest Unsolved Mathematical Puzzles of Our Time*, *American Scientist*, March-April 2003, pp. 180-181.
5. Review of *A New Shepherd's Lamp*, MAA Online, March 2002.
6. Slippery Centroids, *College Math Journal*, May 2001, pp. 197-199, with J. Alongi.
7. Review of *Understanding Analysis*, *MAA Online*, March 2001.

8. Review of *The Wild Numbers* and *Uncle Petros and Goldbach's Conjecture*, in *The American Mathematical Monthly*, Nov. 2000, pp. 871–873.
9. Stability of one-dimensional inelastic collision sequences of four balls, *Physica D*, **125**, January 1999, pp. 183-200, with B. Cipra, P. Dini, and A. Kolan.
10. Proof without words: Counting Cannonballs, *Mathematics Magazine*, February 1997, p. 46, with Deanna Haunsperger. Reprinted in *Proofs Without Words II*, Mathematical Association of America, 2000.
11. An algorithm for the linking numbers of Lorenz and horseshoe knots, *The Houston Journal of Mathematics*, vol. 20, no. 4, 1994.
12. Coin flipping, dynamical systems, and the Fibonacci numbers, *Mathematics Magazine*, December 1994, with M. Stafford.
13. A (very) short proof of Fermat's theorem, *The Mathematical Gazette*, March 1994, p. 48.
14. A new Cayley-Hamilton theorem, *Global Analysis in Modern Mathematics*, Publish or Perish Inc., 1993, pp. 247-251, with M. Stafford and R. F. Williams.
15. Review of *Ordinary Differential Equations*, by V. I. Arnol'd, *CODEE*, Fall 1993, pp. 7-8.
16. The topology of the periodic point set of a family of circle maps, *Topology Proceedings*, Spring 1992, pp. 83-112.
17. Bifurcations in a first order differential equation, *Proceedings of the 1992 International Conference on Technology in Collegiate Mathematics*, pp. 393-398, with M. Richey.
18. A Workbook of Experiments in Ordinary Differential Equations with Maple V, published electronically, with M. Richey.
19. A Lorenz-like strange attractor, Ph.D. Thesis, Northwestern University, under the direction of R. F. Williams, 1988.

Articles: Humor, Opinion, Miscellaneous

1. A Politician's Apology, *Math Horizons*, November 2009, p. 35.
2. A Serendipitous Sisterhood, *Math Horizons*, September 2007, pp.36-37, with D. Haunsperger
3. Serendipity and Inadvertence in the Building of Community, in *Building Intellectual Community through Collaboration*, ed. Carol Rutz and Mary Savina, College City Publications, 2007, with D.B. Haunsperger.
4. When Lions Battle, *Math Horizons*, April 2007, pp. 8-11, 30-31, with S.D. Abbott.
5. The Math Circle, *Math Horizons*, April 2003, pp. 9-10, 27-28.
6. The Final Exam, a regular contest feature in *Math Horizons*, February 1999, September 1999 (w. D.B. Haunsperger), November 2000, September 2001 (w. DBH), November 2001 (w. DBH), September 2002, February 2003.
7. Math Makes the Movies, *Math Horizons*, November 2001, pp. 5-8 with D. Haunsperger.
8. Symbols of Power, *Math Horizons*, April 2001, pp. 17-20. Reprinted in *The Edge of the Universe*.
9. The Number Years, *Math Horizons*, April 2001, pp. 5-7, with D. Haunsperger.
10. Strength in Numbers, *Focus*, February 2001, pp. 4-5, with D. Haunsperger.
11. Student Research at the Joint Meetings, *Math Horizons*, September 2000, pp. 23-25, w. D. Haunsperger.
12. Coal Miner's Daughter, *Math Horizons*, April 2000, pp. 5-9, 28-30, with D. Haunsperger. Translated into Russian and reprinted in *Empire of Mathematics*, 2001. Reprinted in *The Edge of the Universe*.
13. Carleton and St. Olaf Colleges' Summer Mathematics Program, in *Proceedings of the Conference on Summer Undergraduate Mathematics Research Programs*, Joseph A. Gallian, editor, pp. 223-230, American Mathematical Society, 2000, with D. Haunsperger.
14. The PhD of comedy, *Math Horizons*, February 1999, pp. 5-9, with D. Haunsperger. Reprinted in *The Edge of the Universe*.
15. Liberal Arts Marketability, in *Starting Our Careers*, American Mathematical Society, 1999, pp. 1-3.

16. When your spouse is your departmental colleague: Dual-career couples in liberal arts colleges, *CUR Quarterly*, June 1998, with K. Galotti, D. Haunsperger, L. Komatsu.
17. Is an REU for You?, *Math Horizons*, February 1998, with D. Haunsperger.
18. The Carleton and St. Olaf Colleges' Summer Mathematics Program, in *Women in Mathematics: Scaling the Heights*, MAA Notes volume #46, 1997, with D. Haunsperger.
19. An abecedarian history of mathematics, *Math Horizons*, February 1997. Reprinted in *The Edge of the Universe*.
20. Emmy Noether, *Math Horizons*, November 1996.
21. Summer Mathematics Program for Women, *Association for Women in Mathematics Newsletter*, **26:6** (1996), p. 17, with D. Haunsperger.
22. A bunch of nonsense, *Math Horizons*, February 1996, with D. Haunsperger.
23. A gaggle of geeks?, *Math Horizons*, September 1995, with D. Haunsperger.
24. Response to Professor Yang, *Notices of the American Mathematical Society*, Forum, May 1995, with C. Bennett.
25. The etiquette of hiring, *UME Trends*, March 1992, with D. Haunsperger.

UNDERGRADUATE RESEARCH PROJECTS

1. Triangulations of Surfaces and Computer Visualization, Timothy McMurry, John Perry and Britton Pehler, Fall-Winter 1997-1998.
2. Modelling Options Pricing, William Bunting and David Frohardt-Lane, Fall-Winter 1998-1999.
3. Tracing a Point, Spinning a Vertex: How Circles Are Made, Emily Banks, Seth Cooper, Laura Hudson and Emily Miller, Fall-Winter 2004-2005.
4. The Shape of Triangle Space, Adam Carr, Julia Fisher, Andrew Roberts, Peng Xu, Fall-Winter 2006-2007, published as Natural Families of Triangles 1: Parametrizing Triangle Space, and Natural Families of Triangles 2: A Locus of Symmedian Points in *The Rose-Hulman Undergraduate Mathematics Journal*, Spring 2008, v. 9, no. 1.
5. Power Indices and Weighted Voting, Christine Donovan, Elissa Brown, Charles Noneman, Winter-Spring 2009.
6. Bid-to-Play Games, Boye Akinwade, Lizzie Cross, Andrew Bergman, WeiQi Tan, Winter-Spring 2011.
7. Congruence Subgroup Symmetries in Hyperbolic Space, Frank Firke, Abram Jopp, Winter-Spring 2012.
8. Hecke Symmetries in Hyperbolic Space, Jon Hahn, Colin Hazlett, Becca Cordes, Winter-Spring 2012.

SELECTED TALKS AND INVITED ADDRESSES

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| March 2012 | Vassar College, <i>Bright Lights on the Horizon</i> , with D.B. Haunsperger |
| March 2012 | Connecticut Valley Colloquium Series, <i>Bright Lights on the Horizon</i> , with D. Haunsperger |
| March 2012 | Mount Holyoke College, <i>Halving Your Cake</i> , with D.B. Haunsperger |
| November 2009 | Loyola Marymount University, <i>Bright Lights on the Horizon</i> , with D.B. Haunsperger |
| November 2007 | Washington and Lee University, <i>Two Heads Are Better Than None</i> |
| October 2006 | University of Richmond, <i>Halving Your Cake</i> , with D.B. Haunsperger |
| March 2006 | Winona State University, <i>Horizontal Mathematics</i> |
| February 2006 | St. Olaf College, <i>Horizontal Mathematics</i> , with D.B. Haunsperger |
| July 2005 | SMALL REU at Williams College, <i>Halving Your Cake</i> , with D.B. Haunsperger |
| April 2005 | Midwest Undergraduate Mathematics Symposium (with D. Haunsperger) <i>Halving Your Cake</i> |
| January 2004 | Annual Joint Meeting of the AMS and MAA <i>Knots in Dynamical Systems</i> |
| April 2003 | Wisconsin Section of the Mathematical Association of America, Keynote speaker <i>Two Heads are Better than None</i> and (with D. Haunsperger) <i>Halving Your Cake</i> |
| March 2003 | St. Olaf College (with D. Haunsperger): <i>Halving Your Cake</i> |
| September 2002 | St. Cloud State University: <i>Two Heads are Better than None</i> |

March 2000 Iowa Section of the Mathematical Association of America, Keynote speaker *Two Heads are Better than None*

April 1998 St. Olaf College: *Fareys, Trees and Fractions*

January 1998 Annual Meeting, American Mathematical Society, Special Session on Dynamical Systems and Topology: *One-dimensional Inelastic Collapse*

April 1996 St. Olaf College Colloquium: *Inelastic Collapse*

July 1995 Carleton and St. Olaf Colleges Summer Mathematics Program Colloquium: *Me and the Fibonacci*

March 1994 Gustavus Adolphus College Colloquium: *Me and the Fibonacci*

January 1994 AMS-MAA Meeting, Cincinnati, Special Session on New Methods of Teaching Differential Equations: *Differential Equations at St. Olaf with Maple V*

March 1993 Carleton/St.Olaf Research Seminar: *What the Cayley-Hamilton Theorem Means to Me*

November 1992 International Conference on Technology in Collegiate Mathematics: *Using Computer Experiments to Teach Differential Equations*

September 1992 Carleton College Colloquium: *Much Ado About Knotting*

July 1992 University of Minnesota, North Central Forest Service Station, Workshop on Differential Equations Models in Forestry: *Differential Equations and MacMath*

November 1991 St. Olaf College Colloquium: *Much Ado about Knotting*

October 1991 Carleton/St. Olaf Research Seminar: *A Topological Coincidence*

March 1991 Northwestern University, Midwest Dynamical Systems Conference: *Periodic Orbits in a Family of Circle Maps*

January 1991 University of Texas, Dynamical Systems Seminar: *Periodic Orbits in a Family of Circle Maps*

March 1988 Michigan State University, AMS Meeting, Contributed Paper: *A Lorenz-like Strange Attractor*

October 1987 Boston University, Midwest Dynamical Systems Conference: *Composite Knots in a Strange Attractor*

GRANTS

January 2010–December 2014 National Science Foundation (\$1M), EMSW21-MCTP: *Carleton College Summer Mathematics Program for Women*, co-principal investigator with D. Haunsperger.

January 2007–December 2009 National Science Foundation (\$599,170), *Carleton Summer Mathematics Program*, co-principal investigator with D. Haunsperger

February 2005 Spencer Foundation, *Discovering Topology*, unfunded

January 2003–December 2005 National Science Foundation (\$426,236), *Carleton Summer Mathematics Program*, co-principal investigator with D. Haunsperger

September 2001–June 2002 Carleton College Lum Fellowship

January 1999–December 2001 National Science Foundation (\$276,000), *Carleton St. Olaf Summer Mathematics Program*, co-principal investigator with D. Haunsperger

January 1999–December 2001 National Security Agency (\$23,650), *Carleton St. Olaf Summer Mathematics Program*, co-principal investigator with D. Haunsperger

May 1998–May 1999 Legacy of R.L. Moore Project, University of Texas, (\$2900), Travel and research grant for biography of R.L. Moore

April 1996–April 1999 National Science Foundation (\$244,114), *Carleton St. Olaf Summer Mathematics Program*, co-principal investigator with D. Haunsperger

June 1996–June 1998 National Security Agency (\$20,145), *Carleton St. Olaf Summer Mathematics Program*, co-principal investigator with D. Haunsperger

June 1995–June 1996 National Science Foundation (\$60,000), *A Consortium to Advance Women in Mathematics*, senior associate

June 1995– June 1996 National Security Agency (\$16,230), *Carleton St. Olaf Summer Mathematics Program*, senior associate

September 1994 National Science Foundation, *The Young Mathematicians' Network Administrative Board Meeting*, principal investigator, unfunded

June 1992– June 1994 St. Olaf College FIPSE grant: *Materials Development for an Advanced Computing Laboratory for Undergraduate Mathematics*, participant

OTHER PROFESSIONAL ACTIVITIES

October 2011 Oberwolfach, Invited participant, Emigration of Mathematicians and Transmission of Mathematics

July 2010– MAA Board of Governors

Spring 2010 MAA Hiring Committee for *The American Mathematical Monthly* Editor

January 2009– *Math Horizons* Editorial Board

January 2009– 2012 MAA Ford Prize Committee

Spring 2009 Lake Forest College, External Reviewer

October 2008 Enhancing Diversity in Graduate Education, workshop participant

August 2008 MAA Project Next panel on recruiting math majors, panelist

July 2007 NSF CCLI grant review panel, reviewer

July 2007 MAA NCS Summer Seminar in Experimental Mathematics, Organizer

February 2007 Benedictine University, Mathematics Department, External Reviewer

January 2007 National Science Foundation, Division of Mathematical Sciences, Workforce program solicitation consultation

January 2007— 2010 MAA Carriage House Advisory Board

2007 MAA Program Committee for 2008 Joint Meeting

2007 MAA Hiring Committee for *Math Horizons* Editor, chair

July 2006– June 2007 MAA North Central Section, President

2006 MAA *ad hoc* Committee to charter The Euler Prize

June 2005 Project Reconnect participant

February 2005 Luther College Mathematics Department, External Reviewer

April 2004– MAA, Planning Committee for the MAA Centennial, co-chair

January 2003– January 2006 MAA, Beckenbach Prize Committee

February 2002– January 2005 AMS, Joint Data Committee

January 2002– January 2003 MAA, Program Committee for the 2003 Joint Meeting, chair

July 2002– National Curve Bank Advisory Board

September 2000– September 2003 MAA-NCS, Committee on Distinguished Teaching Award

August 2000 Project NeXT Panelist: Balancing Career and Family and, Writing Letters of Recommendation

November 1999– Project NeXT Consultant

January 1999– December 2003 Co-Editor of *Math Horizons*

January 1999– December 2003 MAA Committee on Publications

January 1998	Association for Women in Mathematics, Panel Discussion: panelist
January 1998	Mathematical Association of America mini-course on Teaching the History of Mathematics: participant
1997–1999	Undergraduate Industrial Math Project
August 1994–	Carleton and St. Olaf Colleges Summer Mathematics Program: co-director
May 1996	Board on Mathematical Sciences Workshop/Retreat <i>Actions for Renewing the Mathematical Sciences: Adapting to the Changed Environment</i> : invited participant
January 1995	Mathematical Association of America: invited presentation on the job market at National Board of Governors meeting
January 1995	Mathematical Association of America mini-course on the History of Mathematics: participant
August 1993– December 1995	Young Mathematicians' Network: administrative board member
November 1993, December 1994	<i>Concerns of Young Mathematicians</i> , weekly newsletter of the Young Mathematicians' Network: editor
June 1993	St. Olaf College, Workshop on Using Computer Experiments to Teach Differential Equations: co-organizer, lecturer on dynamical systems, software demonstrator
January 1993– August 1994	Consortium for Ordinary Differential Equations Experiments Advisory Board
July 1992	Boston University, Regional Dynamics Institute: participant
June 1992	Cornell University, Workshop on Using Computer Experiments to Teach Differential Equations: participant
September 1991– September 1998	<i>American Mathematical Monthly</i> : Telegraphic Book Reviewer
June 1989	Humboldt State University, AMS Summer Research Conference, Continuum Theory and Dynamical Systems: participant
1989	Prentice Hall Publishers, National Science Foundation, <i>Mathematics Magazine</i> , <i>Discrete and Continuous Dynamical Systems</i> : referee/reviewer

COLLEGE SERVICE

2011–2012	Compensation Strategic Planning Working Group
2010–2011	Community, Equity, Diversity Initiative: Outside the Classroom Task Force
2008–2009	Community, Equity, Diversity Initiative: Workplace Task Force
2008–2009	College Council
2008	Academic Standing Committee
2007– 2011	Mathematics Department chair
2003–2007	Mentor to Carleton Posse 3
2003–2008	DIG member
2000–2001	Budget Committee
2000	Faculty retreat Committee
1994–2004	MAX, student math club, advisor
1997–2001	Math Comps czar
Spring 1997	Samuel Strauss Award Committee
1997–1999	Faculty Judiciary Committee, alternate
1997–2000	Faculty Compensation Committee
April 1996	Colloquium: <i>Inelastic Collapse</i>
Spring 1996	Search Committee for Student Support Services Director
1994–1995	Pedagogy Seminar: co-organizer

1993–1998	St. Olaf Math Bowl: co-organizer, master of ceremonies
1996, 1997	Konhauser Problemfest: local organizer
1996–2001, 2003	Tour of Math
1994–1995	<i>Who Said It?</i> Goodsell Gazette filler
1995	Calculus text committee
Fall 1995	Calculus 1 gateway exams
1994–1997	Mortar Board Faculty Spelling Bee (winner 1995, 1997)
1995–1997	All-Campus Conversation Committee

PROFESSIONAL MEMBERSHIPS

Mathematical Association of America
American Mathematical Society
Association for Women in Mathematics
The Canadian Society for History and Philosophy of Mathematics

COMMUNITY SERVICE

Northfield Community Action Center, Volunteer
Northfield Public Schools, Volunteer
Northfield High School Fine Arts Boosters, Board member