

## VITA

**Jim Hoste**

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### Contact Information

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### Education

University of Utah	Ph.D.	1982	mathematics
University of California, Berkeley	M.A. with honors	1978	mathematics
University of California, Berkeley	A.B.	1976	mathematics

### Fields of Specialization

low-dimensional topology, knot theory, computer applications to knot theory and topology

### Employment

2018–	Professor Emeritus	Pitzer College
2016–2018	Flora Sanborn Pitzer Chair of Mathematics	Pitzer College
1998–2018	Professor	Pitzer College
Summer 1998	Visiting Scholar	University of Hawaii, Manoa, HI
1992–1998	Associate Professor	Pitzer College
Spring 1997	Member	Mathematical Sciences Research Institute, Berkeley, CA
Summer 1992	Visiting Scholar	University of Melbourne, Australia
1989–1992	Assistant Professor	Pitzer College
1988–1989	Visiting Assistant Professor	Pomona College
1986–1988	Assistant Professor	Oregon State University
1983–1986	Hill Assistant Professor	Rutgers University
1982–1983	NSF Postdoctoral Research Fellow	Courant Institute, New York University

### Honors and Awards

Scholar in Residence	Pitzer College	Fall 1999
Rutgers University Research Fellowship	Rutgers University	Summer 1985
NSF Postdoctoral Research Fellowship	Courant Institute	1982–83
Graduate Research Fellowship	University of Utah	1980–82

### Grants

1. Pitzer College Research Grant, annual awards of various amounts to support research, the Claremont topology seminar, travel, etc.
2. NSF Claremont Colleges Mathematics REU Site, principal investigator, 2005–08, \$195,977 with an additional \$31,000 from the five Claremont Colleges.
3. Mellon Foundation, 1996-97, \$5,200, to develop *Mathematica* notebooks for calculus instruction.
4. NSF Instrumentation and Laboratory Improvement Grant, with Jim Kieley, Director of Academic Computing, 1992–94, \$32,360 matched by Pitzer College, to establish a Computer Classroom for a Liberal Arts Curriculum.

5. Oregon State University Research Council Grant, 1986–87, \$3900, Computer Applications to knot theory.
6. NSF Scientific Computing Research Grant, with D. Finch, R. Higdon, H. Parks, D. Solmon, 1986–87, \$39,600 from NSF with \$29,700 from OSU, for purchase of SUN 3/260 computer system.
7. NSF Research Grant, principal investigator, 1985–87, \$25,800, Problems in knot theory and applications to low-dimensional topology.

### **Professional Activities**

1. Conference co-organizer, *Doing Mathematics in Different Cultural Contexts, A Conference in Honor of Judith V. Grabiner*, Pitzer College, October 24, 2015
2. Associate Editor, *Involve, A Journal of Mathematics*, 2012–2018,
3. Co-organizer of Southern California Topology Colloquium, 2010–2011.
4. Co-organizer of Special Session on Knot Theory and the Topology of 3-manifolds, Claremont McKenna College, Claremont, CA (2008 Spring Western Section Meeting, American Mathematical Society), May 3-4, 2008.
5. Chair, Committee on the Profession, American Mathematical Society, 2006–07.
6. Member at Large, Committee on the Profession, American Mathematical Society, 2005–2007.
7. Director, Claremont Colleges Mathematics REU, 2005–2008.
8. Associate Editor, *Journal of Knot Theory and Its Ramifications*, 1991–2018.
9. Organizer, Claremont Topology Seminar, 1989–2018.
10. Lecturer, 8th-grade mathematics enrichment program, Foothill Country Day School, January-June, 1999.
11. Reviewer, Task Contributor, and Consultant, New Standards Project, 1994–1997, 1999–2000.
12. Reviewer, various grant proposals, including NSF, 1984–2018.
13. Referee of journal manuscripts, 1983–present.
14. Co-organizer, Claremont Mathematics Colloquium, 1989–90, 2005–07.
15. Co-organizer, with Dale Rolfsen, 1987-88, Pacific Northwest Topology Seminar.

### **Student Theses Directed**

1. *Tabulating Oriented Links*, Helmut M.A., Oregon State University, 1986-88.
2. *Towards an Understanding of the Roots of the Alexander Polynomial of Alternating Knots*, Charlie McIntosh, Senior Thesis, Pitzer College, 2003.

3. *Alexander Polynomials of Two-Bridge Knots and Links*, Rob Gaebler, Senior Thesis, Harvey Mudd College, 2004.
4. *Matrix Representations of Knot and Link Groups*, Jessica May, Senior Thesis, Harvey Mudd College, 2006.
5. *Curly Knots*, Mayra Ibarra, Senior Thesis, Scripps College, 2010.
6. *Twisted Alexander Polynomials*, Kristine Stanton, Senior Thesis, Pitzer College, 2011.
7. *Upper bounds in the Ohtsuki-Riley-Sakuma partial order on 2-bridge knots*, Scott M. Garrabrant, Senior Thesis, Pitzer College, 2011.

## Research Publications

1. *Sewn-up  $r$ -link exteriors*, Ph.D thesis, University of Utah, Pacific J. of Math. **112** No. 2 (1984), 347–382.
2. *The Arf invariant of a totally proper link*, Topology Appl. **18** (1984), 163–177.
3. *The first coefficient of the Conway polynomial*, Proc. Amer. Math. Soc. **95** No. 2 (1985), 299–302.
4. *A new polynomial invariant of knots and links*, with P. Freyd, W.B.R. Lickorish, K. Millett, A. Ocneanu, and D. Yetter, Bull. Amer. Math. Soc. **12** No. 2 (1985), 239–246. Reprinted in *New Developments in the Theory of Knots*, T. Kohno, ed., Advanced Series in Mathematical Physics **11**, World Scientific, 1990.
5. *A polynomial invariant of knots and links*, Pacific J. Math **124** No. 2 (1986), 295–320.
6. *A formula for Casson’s invariant*, Trans. Amer. Math. Soc. **297** No. 2 (1986), 547–562.
7. *An invariant of dichromatic links*, with Józef Przytycki, Proc. Amer. Math. Soc. **105** No. 4 (1989), 1003–1007.
8. *Dichromatic link invariants*, with Mark Kidwell, Trans. Amer. Math. Soc. **321** No. 1 (1990), 197–229.
9. *Homotopy skein modules of orientable 3-manifolds*, with Józef Przytycki, Proc. Camb. Phil. Soc. **108** (1990), 475–488.
10. *Unknotting operations involving trivial tangles*, with Y. Nakanishi and K. Taniyama, Osaka J. Math. **22** (1990), 555–566.
11. *Minimal atlases on 3-manifolds*, with F. González-Acuña and J.C. Gómez-Larrañaga, Proc. Camb. Phil. Soc. **109** (1991), 105–115.
12. *A tabulation of oriented links*, with Helmut Doll, Math. Comp. **57** No. 196 (1991), 747–761.
13. *A survey of skein modules of 3-manifolds*, with Józef Przytycki, Knots 90 (A. Kawauchi, eds.), Proceedings of the International Conference on Knots, Osaka, Japan, 1990, Walter de Gruyter & Co., 1992.
14. *The  $(2, \infty)$ -skein module of lens spaces; a generalization of the Jones polynomial*, with Józef Przytycki, J. Knot Theory Ram. **2** No. 3 (1993), 321–333.

15. *Tabulating alternating knots through 14 crossings*, with B. Arnold, M. Au, C. Candy, K. Erdener, J. Fan, R. Flynn, R. Muir, and D. Wu, *J. Knot Theory Ram.* **3** No. 4 (1994), 433–437.
16. *The  $(2, \infty)$ -skein module of Whitehead manifolds*, with Józef Przytycki, *J. Knot Theory Ram.* **4** No. 3 (1995), 411–427.
17. *The Kauffman bracket skein module of  $S^1 \times S^2$* , with Józef Przytycki, *Math. Z.* **220** (1995), 65–73.
18. *Framed link diagrams of open 3-manifolds*, in *Knots '96*, Proceedings of the Fifth International Research Institute of Mathematical Society of Japan, Waseda Univ., Tokyo, 1996, S. Suzuki ed., World Scientific, (1997), 515–537.
19. *Open 3-manifolds with infinitely many knot-surgery descriptions*, in *Knots '96*, Proceedings of the Fifth International Research Institute of Mathematical Society of Japan, Waseda Univ., Tokyo, 1996, S. Suzuki ed., World Scientific, (1997), 539–543.
20. *Tangle surgeries which preserve Jones-type polynomials*, with Józef Przytycki, *Int. J. Math.* **8** No. 8 (1997) 1015–1027.
21. *The first 1,701,936 knots*, with Morwen Thistlethwaite and Jeff Weeks, *Math. Intelligencer* **20** No. 4 (1998) 33–48.
22. *Trace fields of twist knots*, with Patrick Shanahan, *J. Knot Theory Ram.* **10** No. 4 (2001) 625–639.
23. *A formula for the A-polynomial of twist knots*, with P. Shanahan, *J. Knot Theory Ram.* **13** No. 2 (2004) 193–209.
24. *Commensurability classes of twist knots.*, with P. Shanahan, *J. Knot Theory Ram.* **14** No. 1 (2005) 1–10.
25. *The enumeration and classification of knots and links*, *Handbook of Knot Theory*, W. Menasco and M. Thistlethwaite, eds., Elsevier (2005) 209–232.
26. *Remarks on Some Hyperbolic Invariants of 2-Bridge Knots*, with P. Shanahan, *Physical and Numerical Models in Knot Theory*, Series on Knots and Everything—Vol. 36, Calvo, Millett, Rawdon, and Stasiak, eds., World Scientific Press (2005) 581–596.
27. *Computing boundary slopes of 2-bridge links*, with Patrick D. Shanahan, *Math. Comp.* **76** (2007), 1521–1545.
28. *Boundary slopes of 2-bridge links determine the crossing number*, with P. D. Shanahan, *Kobe J. Math.* **24**, No. 1 (2007), 21–39.
29. *Lissajous knots and knots with Lissajous projections*, with L. Zirbel, *Kobe J. Math.* **24**, No. 2 (2007), 87–106.
30. *Torus knots are Fourier- $(1, 1, 2)$  knots*, *Journal of Knot Theory and its Ramifications* **18**, No.2 (2009), 265–270.
31. *Sampling Lissajous and Fourier knots*, with A. Booher, G. Daigle, and W. Zhang, *J. Experimental Math.*, **18**, no. 4, (2009), 481–497.

32. *Epimorphisms and boundary slopes of 2-bridge knots*, with P. D. Shanahan, *Algebraic and Geometric Topology*, **10**, (2010), 1221–1244.
33. *Upper bounds in the Ohtsuki-Riley-Sakuma partial order on 2-bridge knots* with Scott M. Garrabrant and Patrick D. Shanahan, *Journal of Knot Theory and its Ramifications* **21**, No. 9 (2012).
34. *Twisted Alexander polynomials of 2-bridge knots* with Patrick D. Shanahan, *Journal of Knot Theory and its Ramifications* **22**, No. 1 (2013).
35. *Involutory quandles of  $(2, 2, r)$ -Montesinos links*, with Patrick D. Shanahan, *Journal of Knot Theory and its Ramifications*, **26**, No.3, (2017).
36. *Links with finite  $n$ -quandles*, with Patrick D. Shanahan, *Algebraic and Geometric Topology*, **17**, pp. 2807–2823, (2017).
37. *Finite  $n$ -quandles of torus and two-bridge links*, with Alissa Crans, Blake Mellor, and Patrick D. Shanahan, *Journal of Knot Theory and Its Ramifications*, **28**, No. 03 (2019), arXiv:1806.05727, <https://doi.org/10.1142/S0218216519500287>.
38. *Remarks on Suzuki’s Knot Epimorphism Number*, with Joshua Ocana Mercado and Patrick D. Shanahan, *Journal of Knot Theory and Its Ramifications*, **28**, No. 09, 1950060 (2019), arXiv:1810.05146.
39. *Triple-crossing number and moves on triple-crossing link diagrams*, with Colin Adams and Martin Palmer, *Journal of Knot Theory and Its Ramifications, Proceedings of Knots in Hellas 2016*, **28**, No. 11, 1940001 (2019), arXiv:1706.09333.
40. *A note on Alexander polynomials of 2-bridge links*, *Journal of Knot Theory and Its Ramifications*, **29**, No. 08, 1971003 (2020), arXiv:1907.03812.

### Manuscripts Submitted for Publication

1. *Crosscap number and the partial order on two-bridge knots*, with Patrick D. Shanahan and Cornelia A. Van Cott arXiv:2010.05009.

### Manuscripts in Preparation

1. *Charles Newton Little: America’s first knot theorist*, with Józef Przytycki, in preparation.

### Books

1. *Mathematica Demystified*, McGraw-Hill, 2008.

### Other Publications

1. Instructors manual for *Encounters with Chaos* by D. Gulick, McGraw Hill, 1992.
2. *Fractal, Topology, Knot Theory*, entries in the Encyclopedia of Science, Technology and Society, R. Volti ed., Facts on File, Inc., (1999) 428–430, 568–569, 1046–1048.

3. *Claremont Colleges REU, 2005–07*, in *Proceedings of the Conference on Promoting Undergraduate Research in Mathematics*, J. Gallian ed., American Mathematical Society, (2007) 49–51.
4. *Knot Diagrams, Knot Tabulation, The HOMFLY-PT Polynomial*, entries in the Encyclopedia of Knot Theory, Colin Adams, Erica Flapan, Allison Henrich, Louis Kauffman, Lew Ludwig, and Sam Nelson editors, CRC Press, (2020).

### Unpublished Manuscripts

1. *Introduction to foliation theory*, M.A. thesis, directed by Morris Hirsch, University of California, Berkeley, 1978.
2. *An invariant of link diagrams preserved by flypes and an approach to a conjecture of Tait*, 1985.

### Computer Software

1. *KnotScape*, with M. Thistlethwaite, a program to provide easy access to the knot tables, compute knot invariants, draw knot diagrams, etc, and designed to run on a plain UNIX-box. May be downloaded from <http://www.math.utk.edu/~morwen>.
2. *Boundary Slopes of 2-bridge Links*, with P. Shanahan, a program to compute the boundary slopes of 2-bridge links. May be downloaded from the CompuTop.org Software Archive at <http://www.math.uiuc.edu/~nmd/computop/>.
3. *Rack Enumeration*, with P. Shanahan, a program to enumerate the elements of a finite rack from a given presentation. May be downloaded from the CompuTop.org Software Archive at <http://www.math.uiuc.edu/~nmd/computop/>.

### Conference Presentations

1. *Sewing up link exteriors and knots with Property R*, AMS meeting 790, Austin, Texas, Nov 6–7, 1981.
2. *Sewn up  $r$ -link exteriors and knots with Property R*, Georgia Topology Conference, Athens, GA, 1982.
3. *On Casson’s Invariant of homology 3-spheres*, Rutgers Topology Conference, New Brunswick, NJ, June 1986.
4. *Invariants of labeled links*, AMS meeting 828, Logan, UT, Oct 10–11, 1986.
5. *An invariant of dichromatic links*, Fourth Annual Western Workshop in Geometric Topology, OSU, Corvallis, OR, June 18–20, 1987.
6. *Dichromatic link invariants*, AMS meeting 838, Los Angeles, CA, Nov 14–15, 1987.
7. *Skein modules of 3-manifolds*, with J. Przytycki, Special Session on Geometric Topology, Amer. Math. Soc. meeting no. 849, Chicago, IL, May 19–20, 1989. (Abstract 849-57-218.)
8. *The  $(2, \infty)$ -skein module of lens spaces; a generalization of the Jones polynomial*, International Conference on Knots 90, Osaka, Japan, August 15–19, 1990.

9. *Minimal atlases on 3-manifolds*, International Conference on Knots '90, Osaka, Japan, August 15–19, 1990.
10. *Skein modules of open contractible 3-manifolds*, with J. Przytycki, Special Session on Low Dimensional Topology, Amer. Math. Soc. meeting no. 861, Denton, TX, Nov 2–3, 1990. (Abstract 861-57-202.)
11. *Skein modules of Whitehead type manifolds*, 25th Annual Spring Topology Conference, Sacramento, CA, April 11–13, 1991.
12. *Distinct links with equal Jones polynomials, distinct manifolds with equal Witten invariants*, XXIV Congreso Nacional de la Sociedad de Matematica Mexicana, Oaxtepec, Mexico, Nov 10–16, 1991.
13. *Skein modules of 3-manifolds*, XXIV Congreso Nacional de la Sociedad de Matematica Mexicana, Oaxtepec, Mexico, Nov 10–16, 1991.
14. *Infinite framed link diagrams for open 3-manifolds*, Special Session on 3-manifolds, Amer. Math. Soc. meeting no. 893, Eugene, OR, June 16–18, 1994. (Abstract 893-57-12.)
15. *Infinite framed link diagrams for open 3-manifolds*, Knots at Huia, Huia, New Zealand, December 10–20, 1994.
16. *Open 3-manifolds with infinitely many knot-surgery descriptions*, Knots '96, Waseda University, Tokyo, Japan, July 22-26, 1996.
17. *Recent progress in knot tabulation and demonstration of the computer software KnotScape*, Workshop on Computational and Algorithmic Methods in 3-Dimensional Topology, at Math. Sci. Research Inst., Berkeley, CA, March 10-14, 1997.
18. *The first 1,701,936 knots: recent progress in knot tabulation*, University of Sussex Conference in Low Dimensional Topology, Roger Fenn organizer, Isle of Thornes, England, April 11-14, 1997.
19. *Knot Tabulation, Knotscape, and skein polynomials*, Workshop in Computation in Low-dimensional Topology, Benny Evans and William Jaco organizers, Oklahoma State University, Stillwater, OK, March 4–7, 1999.
20. *Trace fields of twist knots*, with P. Shanahan, AMS meeting 962, New Orleans, LA, January 10–13, 2001.
21. *Trace fields of hyperbolic knots*, with P. Shanahan, Amer. Math. Soc. Special Session on Low Dimensional Topology, Tim Cochran, organizer, Joint Mathematics Meetings, no. 973, San Diego, CA, January 6–9, 2002.
22. *A formula for the A-polynomial of twist knots*, with P. Shanahan, Geometric Topology, A Satellite Conference of ICM 2002, Shaanxi Normal University, Xi'an, China, August 12-16, 2002.
23. *Eigenvalue varieties of 2-bridge links*, with P. Shanahan, Special Session on Invariants of Knots and 3-Manifolds, M. M. Asaeda, J. H. Przytycki, A. S. Sikora, organizers, Amer. Math. Soc. meeting no. 1002, Pittsburgh, PA, November 6–7, 2004.

24. *Sampling Lissajous and Fourier knots*, Special Session on Invariants of Links and 3-manifolds M. Dabkowski, J. H. Przytycki, A. S. Siroka, P. Traczyk, organizers, First Joint International Meeting of the American Mathematical Society and Polish Mathematical Society, Warsaw, Poland, July 31 to August 3, 2007.
25. *On the partial ordering of 2-bridge knots*, 11-th Chico Topology Conference and 40-th Cascade Topology Seminar, T. Mattman, S. Bleiler, organizers, California State University Chico, Chico, CA, May 9–11, 2008.
26. *Lissajous, Fourier, and Chebyshev knots*, Topology and Computers, Tokyo Institute of Technology, Japan, September 8–10, 2010.
27. *Epimorphisms and boundary slopes of 2-bridge knots*, with P. Shanahan, Topology and Computers, Tokyo Institute of Technology, Japan, September 8–10, 2010.
28. *Twisted Alexander Polynomials*, MAA Invited Paper Session on Knot Theory Untangled, Rolland Trapp organizer, Joint Mathematics Meetings, Boston, January 6, 2012.
29. *Twisted Alexander polynomials of 2-bridge knots*, with P. Shanahan, Knots in Washington XXXIV, V. Harizanov, M. Kidwell, J. H. Przytycki, Y. Rong, R. Sazdanovic, A. Shumakovitch, H. Wu, organizers, George Washington University, Washington, DC, March 14–16, 2012.
30. *Twisted Alexander polynomials of 2-bridge knots*, with P. Shanahan, Special Session on Homology Theories Motivated by Knot Theory, J. H. Przytycki, R. Sazdanovic, A. N. Shumakovitch, H. Wu, organizers, AMS meeting #1080, Washington, DC, March 17–18, 2012.
31. *Links with Finite  $n$ -Quandles*, with P. Shanahan, Conference on Knot Theory and Its Applications to Physics and Quantum Computing; 60th birthday of Jozef H. Przytycki, Univ. of Texas at Dallas, January 6–9, 2015.
32. *Links with Finite  $n$ -Quandles*, with P. Shanahan, AMS meeting #1110, University of Nevada, Las Vegas, Las Vegas, NV April 18–19, 2015.
33. *Alexander polynomials of 2-bridge links*, AMS meeting #1117, University of Georgia, Athens, GA, March, 5–6, 2016.
34. *Links with finite  $n$ -quandles*, with P. Shanahan, Knots in Hellas, Olympia, Greece, July 21, 2016.
35. *Diagrammatic moves on 3-diagrams*, with C. Adams and M. Palmer, AMS meeting #1128, Washington State University, Pullman, WA, April 22-23, 2017.
36. *Quotients of the fundamental quandle of a link*, with P. Shanahan, MAA Invited Paper Session on Quandle Questions, Joint Mathematics Meeting, San Diego, CA, January 11, 2018.
37. *Charles Newton Little: America's First Knot Theorist*, with J. Przytycki, Special Session on the History of Mathematics, Joint Mathematics Meeting, San Diego, CA, January 12, 2018.
38. *A  $\mathbb{Z} \oplus \mathbb{Z}$ -Family of Knot Quandles*, with P. Shanahan, AMS meeting #1147, University of Hawaii at Manoa, Honolulu, HI, March 22–24, 2019.  
Abstract: [https://www.ams.org/amsmtgs/2251\\_abstracts/1147-57-783.pdf](https://www.ams.org/amsmtgs/2251_abstracts/1147-57-783.pdf)



39. *Crosscap number of 2-bridge knots and the partial order on prime knots*, with Patrick D. Shanahan and Cornelia Van Cott (speaker), AMS meeting #1163, Special Session on Knotty Problems in Geometry: Special Session in Memory of Mark Kidwell, January 7, 2021.  
Abstract:  
[https://www.jointmathematicsmeetings.org/amsmtgs/2247\\_abstracts/1163-57-1330.pdf](https://www.jointmathematicsmeetings.org/amsmtgs/2247_abstracts/1163-57-1330.pdf)

### Invited Talks<sup>1</sup>

1. University of California, Berkeley, Topology Seminar, *Crosscap Number and Epimorphisms of Two-Bridge Knot Groups*, February 17, 2021.
2. Claremont Colleges, Topology Seminar, *A  $\mathbb{Z} \oplus \mathbb{Z}$ -Family of Knot Quandles*, April 25, 2019.
3. Xiamen University, Xiamen, China, Topology Seminar, *Multi-crossing Diagrams of Knots*, April 15, 2019.
4. Claremont Colleges, Topology Seminar, *Remarks on Suzuki's Knot Epimorphism Number*, October 4, 2018.
5. California State University, Fullerton, Topology Geometry Seminar, *Multi-crossing Diagrams of Knots*, October 21, 2016.
6. Claremont Colleges, History of Mathematics and Philosophy Seminar, *Charles Newton Little: America's First Knot Theorist*, October 10, 2016.
7. McMaster University, Hamilton, Ontario, Canada, Colloquium, *Quandles and Knots*, April 15, 2016.
8. McMaster University, Hamilton, Ontario, Canada, Topology Seminar, *Knots with finite  $n$ -quandles*, April 14, 2016.
9. George Washington University, Washington D.C., Topology Seminar, *Knots with finite  $n$ -quandles*, April 13, 2016.
10. California State University, Long Beach, Mathematics Colloquium, *Involutory quandles of knots*, November 8, 2013.
11. Claremont Colleges Topology Seminar, *Twisted Alexander polynomials of 2-bridge knots*, September 27, 2011.
12. Claremont Colleges Topology Seminar, *Upper bounds in the Ohtsuki-Riley-Sakuma partial order on 2-bridge knots*, February 15, 2011.
13. Pitzer College, GEMS program, *Instant Insanity*, October 2, 2010.
14. Claremont Colleges Topology Seminar, *Epimorphisms between 2-bridge knot groups*, May 4, 2010.
15. California State University, San Bernardino, REU, *Lissajous, Fourier, and Chebyshev knots*, August 5, 2009.
16. Claremont Colleges Mathematics Colloquium, *Lissajous, Fourier, and Chebyshev knots*, April 22, 2009.

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<sup>1</sup>This list is incomplete and does not include talks prior to 1996.

17. Oklahoma State University, Mathematics Colloquium, *Lissajous and Fourier Knots*, November 13, 2008.
18. Claremont Colleges Topology Seminar, *On the partial ordering of 2-bridge knots*, April 29, 2008.
19. California State Polytechnic University, Pomona, Mathematics Colloquium, *Lissajous and Fourier Knots*, October 4, 2007.
20. Claremont Colleges Topology Seminar, *Torus knots are Fourier-(1,1,2) knots*, September 18, 2007.
21. Loyola Marymount Mathematics Department Seminar, *Lissajous knots*, October 2, 2006.
22. Claremont Colleges Topology Seminar, *Lissajous and Fourier Knots*, September 12, 2006.
23. Claremont Colleges, Topology Seminar, *Boundary slopes of 2-bridge links determine the crossing number*, March 21, 2006.
24. Claremont Colleges, Topology Seminar, *Boundary Slopes in 2-bridge Link Complements*, February 8, 2005.
25. California State University, Long Beach, Mathematics Colloquium, *Knots: From 3-coloring to the A-polynomial*, October 22, 2004.
26. Harvey Mudd College, *What color is your knot?*, a talk for secondary mathematics teachers and students. Sponsored by the IAS/Park City Mathematics Institute, February 1, 2004.
27. California Institute of Technology, Topology Seminar, *Trace fields, A-polynomials, and commensurability classes of 2-bridge knots*, November 14, 2003.
28. Claremont Colleges Mathematics Colloquium, *The A-polynomial of knots*, November 5, 2003.
29. University of California, Santa Barbara, Topology Seminar, *A recursive formula for the A-polynomial of twist knots*, May, 2002.
30. Claremont High School, Mathematics Club presentation, *The theory of knots*, January, 2002.
31. California State University, San Luis Obispo, Mathematics Colloquium, January, 2002.
32. University of California, Riverside, Topology Seminar, December, 2000.
33. California Institute of Technology, Topology Seminar, October, 2000.
34. University of Idaho, Mathematics Colloquium, March 2000
35. California Institute of Technology, Topology Seminar, February, 2000
36. California State University, San Bernardino, Mathematics Colloquium, May, 1998
37. University of Redlands, Mathematics Colloquium, November, 1997
38. Harvey Mudd College, Computer Science Colloquium, September, 1997
39. University of California, Irvine, Topology Seminar, November 1996