CURRICULUM VITAE

Joan P. Hutchinson
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EDUCATION

M.A. (Hon.) 2011 Macalester College, St. Paul, MN
Ph.D. 1973 University of Pennsylvania, Philadelphia, PA
     Graduate student and teaching assistant 1969-73
     Thesis: "Polynomial identities for skew-symmetric matrices"
     Advisor: Professor Herbert S. Wilf
     Specialization: Combinatorial analysis, graph theory, graph algorithms and graph drawing
M.A. 1971 University of Pennsylvania, Philadelphia, PA
1968-69 Graduate student, University of Warwick, Coventry, England
B.A. 1967 Smith College, summa cum laude, honors mathematics major, elected member of Phi Beta Kappa and Sigma Xi.

EMPLOYMENT

1997- Adjunct Professor of Mathematics, University of Colorado Denver
1990 - 2011 Professor of Mathematics and Computer Science, Macalester College (shared appointment with Stan Wagon), Professor Emerita 2011-
2001, Feb. 4-17, Van Vleck Visiting Scholar in Mathematics, Wesleyan University, Conn.
2000 (fall) Member of Math Sciences Research Institute, Berkeley, Calif.
1993 (fall) Visiting Professor of Mathematics, University of Michigan, Ann Arbor (supported by N.S.F. grant #USE-9150422, Curriculum Development for Freshmen Level Combinatorics).
1989-1990 Visiting Professor of Mathematics, University of Washington, Seattle, WA, sponsored by the N.S.F. Visiting Professorships for Women program and the University of Washington
1976-1990 Smith College; 1989-90, Professor of Mathematics (shared appointment with Stan Wagon)
1985 (fall) Member of the Mathematical Sciences Research Institute, Berkeley, CA
1982 (fall) Visitor, University of Colorado, Boulder, CO

1978-79 Benedict Distinguished Visiting Professor, Carleton College, Northfield, MN

1975-76 Assistant Professor, Tufts University, Medford, MA

1973-75 John Wesley Young Research Instructor, Dartmouth College, Hanover, NH

1967-68 Applications Programmer, Harvard University Computer Center, Cambridge, MA

Summer 1967 Scientific Intern, Woods Hole Oceanographic Institute Woods Hole, MA

Born: April 19, 1945, Philadelphia, PA

PUBLICATIONS

<u>Books</u>

with M. O. Albertson, <u>Discrete Mathematics with Algorithms</u>
John Wiley & Sons, 1988, 546 pp.

-----, <u>Discrete Mathematics with Algorithms</u>, Instructors Manual,
John Wiley & Sons, 1988, 93 pp.

<u>Articles</u>

1. Eulerian graphs and polynomial identities for sets of matrices, Proc. Nat. Acad. Sci. U.S.A. 71(1974) 1314-6. MR 50 #2209.

2. Cancelling Eulerian graphs, <u>Graphs and Combinatorics</u> (R.A. Bari and F. Harary, eds.), Lecture Notes in Mathematics #406, Springer-Verlag, Berlin, 1974. MR 51 #2981.

3. Eulerian graphs and polynomial identities for skew-symmetric matrices, Canad. J. Math. 27(1975) 590-609. MR 53 #7858.

4. with H. S. Wilf, On Eulerian circuits and words with prescribed adjacency patterns, J. Combinatorial Theory (A) 18(1975) 80-7. MR 51 #10115.

5. On words with prescribed overlapping subsequences, Utilitas Math. 7(1975) 241-50. MR #12602.

6. Maps made from Eulerian graphs need fewer colors, <u>Proc. Fifth British Combinatorial Conference, Congr. Numer. 15, 1975</u>. MR 53 #2728.

7. with M. O. Albertson, The maximum size of an independent set in a non-planar graph, Bull. Amer. Math. Soc. 81(1975) 554-5. MR 51 #267.

8. ___, The maximum size of an independent set in a toroidal graph, <u>Proc. Sixth Southeastern Conference on Combinatorics, Graph Theory and Computing, 1975</u>.MR 52 #13453.

9. _____, The independence ratio and genus of a graph, Trans. Amer. Math. Soc 226(1977) 161-173. MR 55 #10303.

10. Let me count the ways: Women in Combinatorics, Association for Women

in Mathematics Newsletter 7(1977) 3-7.

11. with M. O. Albertson, On the independence number of a graph, J. Graph Theory 2(1978) 1-8. MR 58 #10545 a,b.

12. with S. H. Whitesides, On a generalized regularity condition, <u>Theory and Application of Graphs (Proc. Internat. Conf.,</u> <u>Western Mich. Univ.,</u> <u>Kalamazoo, Mich., 1976</u>, Lecture Notes in Mathematics #642, Springer-Verlag, Berlin, 1978. MR 80b:05047.

13. with M. O. Alberston, Hadwiger's conjecture and six-chromatic toroidal graphs, <u>Graph Theory and Related Topics</u>. Academic Press, N. Y., 1979. MR 82k:05047a.

14. _____, The three excluded cases of Dirac's map-color theorem, Annals of the N. Y. Academy of Sciences, Volume 319, 7-17. MR 81c:05037.

15. _____, Hadwiger's conjecture for graphs on the Klein bottle, Discrete Math. 29(1980) 1-11. MR 81a:05046.

16. _____, On six-chromatic toroidal graphs, Proc. London Math. Soc. 41(1980) 533-556 MR 82k:05047b.

17. with P. B. Trow, Some pigeonhole principle results extended, Amer. Math. Monthly 87(1980) 648-51. MR 82g:05016.

18. with G. McNulty, Partitions which are complementary orbits of graphs of genus g, Discrete Math. 45(1983) 255-275. MR 84j:05055

19. with E. Gethner, Connected graphs with complementary edge-orbits, Ars Combinatoria 12(1981) 135-146. MR 84h:05065

20. Automorphism properties of embedded graphs, J. Graph Theory 8 (1984) 35-49.

21. A five color theorem for graphs on surfaces, Proc. Amer. Math. Soc. 90 (1984) 497-504. MR 85d:05115

22. with J. Gilbert and R. E. Tarjan, A separator theorem for graphs of bounded genus, J. Algorithms 22(1984) 391-407. Also Cornell University, Department of Computer Science Technical Report #82-506.MR 86h:68145

23. with S. Wagon, A forbidden subgraph characterization of infinite graphs of finite genus, <u>Graphs and Applications, Proc</u>. <u>First Colorado Symposium on Graph Theory</u> John Wiley & Sons, N.Y. 1985. MR 86b:05025

24. with L. B. Krompart, Connected planar graphs with three or more orbits, <u>Graph Theory and its Applications to Algorithms and Computer Science</u>, John Wiley & Sons, N.Y. 1985. MR   87a:05079

25. with L. B. Krompart, Partitions that arise from connected planar graphs with three orbits, Ars Combinatoria 20(1985) 111-124. MR 87c:05063

26. with G. L. Miller, Deleting vertices to make graphs of positive genus planar,

<u>Discrete Algorithms and Complexity Theory</u>, Academic Press, Boston, 1987 (with G. L. Miller, Deleting vertices to make graphs of positive genus planar, <u>Discrete Algorithms and Complexity Theory</u>, Academic Press, Boston, 1987. (Proc. Japan-U.S. Joint Seminar, 1986, Kyoto, Perspectives in Computing, Vol. 15, pp. 81-98, eds. D. S. Johnson, T. Nishizeki, H. S. Wilf, and A. Nozaki.)

27. On short noncontractible cycles in embedded graphs, SIAM J. Discrete Math, 1(1988) 185-192.

28. On genus-reducing and planarizing algorithms for embedded graphs, Graphs and Algorithms, Proceedings of a Summer Research Conference, Boulder, CO, July, 1987, Contemporary Mathematics Series, Amer. Math. Soc., Vol. 89, 1989

29. with M. Albertson, D. Berman, and C. Thomassen, On homeomorphically irrreducible spanning trees, J. Graph Theory, 14 (1990) 247-258.

30. with A. Dean, Relations among embedding parameters for graphs, <u>Graph Theory, Combinatorics, and Applications, Proc. Sixth Quadrennial Inter national Conf. on the Theory and Applications of Graphs, Western Michigan University</u>, New York, Wiley, 1991.

31. with A. Dean and E. Scheinerman, On the thickness and arboricity of a graph, J. Combinatorial Theory (B), 52 (1991) 147-151.

32. Book review of N. Hartsfield and G. Ringel's <u>Pearls in Graph Theory, a Comprehensive Introduction</u>, Amer. Math. Monthly 98 (1991) 873-875.

33. with J. R. Griggs, On the r-domination number of a graph, Discrete Math, 101 (1992) 65-72. also in Topics in Discrete Mathematics, Vol. 6, North-Holland, Amsterdam, 1992, 395-402.

34. Summertime and the livin' is ..., AWM Newsletter, 22 (1992) 9-11.

35. Coloring ordinary maps, maps of empires, and maps of the Moon Math. Magazine Vol. 66 No. 4, October 1993, 211-225.

36. When three people shake the same number of hands, Congressus Numerantium 95 (1993) 31-35.

37. with A. Dean, Rectangular Visibility Representations of Bipartite Graphs, Extended Abstract, Lecture Notes in Computer Science #894, Graph Drawing, R. Tamassia and I.G. Tollis, eds., Springer-Verlag, Berlin, 1995, pp. 159-166.

38. with A. Davidow, J. P. Huneke, Homeomorphically irreducible spanning trees in planar and toroidal graphs, Graph Theory, Combinatorics, and Applications: Proceedings Seventh Quadrennial International Conference on the Theory and Applications of Graphs, Vol. 1, Y. Alavi and A. Schwenk, eds., John Wiley and Sons, Inc., 1995, pp. 265-276.

39. Three-coloring graphs embedded on surfaces with all faces even-sided, J. Combinatorial Theory, Series B 65 (1995) 139-155.

40. with T. Shermer and A. Vince, On Representations of some Thickness-two Graphs, Extended Abstract, Lecture Notes in Computer Science #1027 (Symposium on Graph Drawing, GD'95, Passau, Germany, Sept. 1995), F. Brandenburg ed., Springer-Verlag, Jan, 1996, pp. 324-332.

41. with A. Dean, Rectangular Visibility Representations of Bipartite Graphs, Discrete Applied Math 75, (1997) 9-25.

42. with P. Bose, A. Dean, and T. Shermer, On Rectangular Visibility Graphs, Graph Drawing, Lecture Notes in Computer Science #1190 (Symp. on Graph Drawing, GD '96, Berkeley, Calif, USA, Sept. 1996 Proceedings), S. North, ed., Springer-Verlag, Berlin, 1997, pp. 25-44.

43. with S. Wagon, Four-coloring Planar Maps, Mathematica in Education and Research, 6, no. 1, (1997) 42 - 51.

44. with F. R. K. Chung, A tribute to Herbert S. Wilf in celebration of his 65th birthday, The Wilf Festschrift (Philadelphia, PA, 1996). Electron. J. Combin. 4 (1997), no. 2, Foreword, 5 pp.

45. with S. Wagon, Kempe revisited, Amer. Math. Monthly, 105 (1998) 170-174.

46. with A. Dean, Rectangle-visibility layouts of unions and products of trees, the (electronic) Journal of Graph Algorithms and Applications, 2 (1998) 1-21.

47. with T. Shermer, A. Vince, On Representations of some Thickness-two graphs, Computational Geometry, Theory and Applications, 13 (1999) 161-171.

48. with Karen L. Collins, Four-coloring six-regular graphs on the torus, Graph Colouring and Applications, P. Hansen and O. Marcotte, eds., CRM Proceedings and Lecture Notes, Vol. 23 (1999) 21-34.

49. with M. O. Albertson, Extending colorings of locally planar graphs, J. Graph Theory, 36 (2001) 105-116.

50. with G. Chen, W. Piotrowski, W. Shreve, and B. Wei, Degree sequences with repeated values, Ars Combinatoria 59 (2001), pp. 33-44.

51. with D. Archdeacon, A. Nakamoto, S. Negami, and K. Ota, Chromatic Numbers of Quadrangulations of closed surfaces, J. Graph Theory, 37 (2001) 100-114.

52. On polar visibility representations of graphs, Proceedings of Graph Drawing 2001, (P. Mutzel, M. Juenger, and S. Leipert, eds.), Lecture Notes in Computer Science #2265, Springer-Verlag, Berlin, 2002, pp 422-434, (previously appeared, incorrectly printed, in Proceedings of Graph Drawing 2000, (J. Marks, ed.), Lecture Notes in Computer Science

#1984, Springer-Verlag, Berlin, 2001, pp. 63 - 76.); also available at www.springerlink.com/content/w7fx8ugrmtd9nppy/

53. Arc- and Circle-Visibility Graphs, Australasian J. Combinatorics 25 (2002) 241-262.

54. On 3- and 4-coloring nearly triangulated surfaces, Proc. 32nd Southeastern Conf. on Combinatorics, Graph Theory, and Computing, 2001, Congressus Numerantium 150 (2001) 129-143.

55. with Bruce Richter and Paul Seymour, Colouring Eulerian Triangulations J. Combinatorial Theory, Series B 84 (2002) 225-239.

56. with M.O. Albertson, Graph Coloring Extensions: When Hadwiger's Conjecture and Embeddings Help, Electronic J. Combinatorics, 9 (1) (2002), R37.

57. with M.O. Albertson, Extending precolorings of subgraphs of locally planar graphs, European J. of Combinatorics, 25 (6) (2004), 863-871 (invited contribution to special issue on Topological Graph Theory and Graph Minors).

58. with Y. Chang, M. S. Jacobson, J. Lehel, and D. B. West, The visibility number of a graph, SIAM J. Discrete Math 148, no. 3, (2004) 462-471,

59. with A. Dean and E. Gethner, Unit bar-visibility layouts of triangulated polygons: Extended Abstract, Graph Drawing: 12th Internat'l Symposium, GD 2004, (J. Pach, ed.), Lecture Notes in Computer Science #3383, Springer-Verlag, Berlin, 2005, pp. 111-122.

60. A note on rectilinear and polar visibility graphs, Discrete Applied Math 148, no. 3, (2005) 263-272.

61. with A. Kündgen, Orthogonal art galleries with interior walls, Discrete Applied Math 154 (2006) 1563-1569. (available online 3/13/06 http://dx.doi.org/10.1016/j.dam.2006.01.006)

62. with E. H. Moore, Distance constraints in graph color extensions, J. Combinatorial Theory, Series B, 97, no. 4, (2007) 501-517.

63. with G. Chen, K. Keating, and J. Shen, Characterizations of [1,k]-Bar Visibility Trees, Electronic J. Combinatorics 13 (1) (2006) R90. (www.combinatorics.org/Volume_13/PDF/v13i1r90.pdf)

64. On list-coloring outerplanar graphs, J. Graph Theory 59, no. 1, (2008) 59-74.

65. In Memoriam, Michael O. Albertson, 1946 - 2009, AWM Newsletter 39, no. 3, (2009), 16-17.

66. In Memory of Michael O. Albertson, 1946-2009, a collection of his outstanding conjectures and questions in graph theory, SIAM DM-Net, June 17, 2009 (Number 2009.04)

67. Colouring graphs on surfaces, invited chapter in Topics in Topological Graph Theory (L.W. Beineke and R.J. Wilson, eds.), Encyclopedia of Mathematics and Its Applications #128, Cambridge University Press, Cambridge, 2009, pp. 111 - 132.

68. with A. M. Dean, Representing 3-trees as unit rectangle-visibility graphs, Congressus Numerantium, 203 (2010) 139-160.

69. with M. Axenovich and M. A. Lastrina, List precoloring extension in planar graphs, Discrete Math, 311 (12), (2011), 1046-1056, arXiv:1006.5596

70. On List-Coloring Extendable Outerplanar Graphs, Ars Mathematica Contemporanea, Vol. 5, no. 1, 2012, 175-188; amc.imfm.si/index.php/amc/article/view/179

71. with A. M. Dean, List-coloring graphs on surfaces with varying list-sizes, El. J. Combinatorics, 14 (4), (2012), P50, www.combinatorics.org/ojs/index.php/eljc/.

72. with A. M. Dean, Visibility Graphs, Section ?, Handbook of Graph Theory, 2nd ed. (J. Gross, Yellen, and P. Zhang eds.) (to appear).

73. A variation on Heawood list-coloring for graphs on surfaces, Bull. I.C.A. (to appear 2013), arXiv:1302.7055 [math.CO]

74. with M. Axenovioch, A. Beveridge, and D. West, Visibility Number of Directed Graphs, SIAM J. Discrete Math., 27 (3), (2013), 1429-1449.

75. with F. Chung and C. Greene (eds.), Herbert S. Wilf (1931-2012), AMS Notices (to appear).

Short notes:

"Alice B. Dickinson," Complexities, Women in Mathematics," (B. A. Case and A. M. Leggett, eds.), Princeton University Press, Princeton, 2005, pp. 207-8; also "Remembering Alice Dickinson," AWM Newsletter 17(6), 1987, 16-17,

A Note on "On 2-visibility drawings of non-planar graphs," Bull. I.C.A., 25 (1999), 100.

with Michele Intermont, "When Sound meets Symbol: a day of change ringing and mathematics at Kalamazoo College, Oct. 2, 1999, The Clapper, Vol. 26, No. 4, Fall 1999, p. 5.

Editorial: In Memory of Michael O. Albertson, 1946 - 2009, Ars Mathematica Contemporanea, Vol. 4, no. 1, 2011.

Guest Column, The Dartmouth, Jan. 2013. (re Pres. Phil Hanlon).

Problems:

Problem #10478, American Mathematical Monthly, Vol. 102, No. 8, 1995, Art

Galleries with Walls, proposed and solved, p.746.

(with S. Wagon) Kempe revisited, American Mathematical Monthly Problem
Section, 105 (1998) 170-174.

(with S. Wagon) Solution to #6, 1997 Iranian Math. Olympiad, Final Round
(2001: 234-235), Crux Mathematicorum 29, No. 6 (2003) 387-388

Crux Mathematicorum, Solution to 16th Korean Math Olympiad, April 2003, 32,
no. 2 (2006), p.86.

Crux Math. Solution to 15th Korean Math. Olympiad, 33 (no. 3) 2007, pp.
154-55.

Articles about me and my work:

What's Happening in the Mathematical Sciences, Amer. Math. Soc., Vol. 1,
1993, "Map-coloring theorists look at new worlds," pp. 43-46.

Mathematical Recreations by Ian Stewart, Scientific American, Aug. 1997, pp.
86-88, and Sept. 1997, pp. 92-94.

Chapter in Notable Women in Mathematics, A Biographical Dictionary, by Laura
Koch, C.Morrow and T. Perl, eds., Greenwood, 1998

Grants and Awards Received

2008 Wallace Travel Grant from Macalester College to attend and give a paper
at the Graph Theory 2008 conference at Sandbjerg manor in Denmark

2005 Honoree at the Graph Theory with Altitude, a conference in honor of Joan
P. Hutchinson on the occasion of her 60th birthday, May 16-20,
University of Colorado at Denver

2004 grant from Assoc. Coll. of Midwest, Enhancing Scholarly Agendas
Initiative to attend 36th SE Conf. on Combinatorics, Graph Theory and
Computing, Floriday Atlantic University, Mar. 2005.

2003-4 co-PI with S. Fox, K. Saxe, and L. Shoop, Math. Assoc. of Amer./Tensor
Foundation grant for the support of women in mathematics

1999 Winner of Deborah and Franklin Tepper Haimo Award for Excellence in
College or University Teaching.

1998-2000 National Security Agency and American Mathematical Association
research grant, "Three- and Four-Coloring Even Triangualations of
Surfaces," #MDA904-99-1-0069.

1998 Mathematical Association of America North Central Section Teaching
Award

1996 National Science Foundation grant #DMS-9612387, "Mathematical
Sciences: A conference in combinatorics and graph theory; June 12-15,
1996; Philadelphia, PA"

1994 recipient of the Carl. B. Allendoerfer Award for the article, "Coloring
    ordinary maps, maps of empires, and maps of the moon" which
    appeared in *Mathematics Magazine*, 1993
1989-90 National Science Foundation Visiting Professorship for Women,
    University of Washington, Seattle, WA, "Structural and algorithmic
    problems in topological graph theory", #RII 8901458.
1984-88 Principal Investigator of National Science Foundation Grant for
    Scientific Research, Division of Computer Research, Research at
    Undergraduate Institutions program, "Separator theorems for graphs"
    #DCR-8411690.
1979 National Science Foundation Undergraduate Research Participation
    program, submitted with M. O. Albertson, #SPI 79-26984.
1977 Co-Principal Investigator with M. O. Albertson of National Science
    Foundation Grant for Scientific Research, "Chromatic classifications of
    Embedded Graphs", #MCS 77-03940-A01.
1977 Educational Foundation of America Summer Research Grants, through
    Smith College. Three Smith College students were supported and
    worked on a joint project with M. O. Albertson and myself.
1976 Co-Principal Investigator with M. O. Albertson of National
    Science.Foundation Grant for Scientific Research, "Chromatic and
    independence classifications for embedded graphs" #MCS 77-03940.

Professional Activities
Panelist on AWM Building a Research Career, JMM, Baltimore, Jan. 2014.
Organizer, contributed minisymposium, CanaDAM 2013, Memorial University of
    Newfoundland Chromatic Graph Theory
Organizer, contributed minisymposium, CanaDAM 2011, University of Victoria,
    Chromatic Numbers of Graphs
AWM representative on the Falconer Lecture Selection Committee, 2011-13.
Guest editor for Ars Mathematica Contemporanea Vol. 4, no. 1, special issue
    dedicated to the memory of Michael O. Albertson, 2011.
Co-organizer with Ruth Haas, CoNE Revisited: celebrating the inspirations of
    Michael O. Albertson, Smith College, March 26-28, 2010
Organizer, SIAM Annual Meeting, minisymposium on graph algorithms and
    optimization, Denver, July 2009
Member of the MAA Program Committee for the Jan. 2010 Joint Math Meetings
    in San Francisco
Council member of the Institute for Combinatorics and Applications, 2008-2010.
Member of the Program Committee for the Mathematics Association of America

MathFest, Aug. 2008.

Member of the Advisory Board for the Young Mathematicians Conference, 2007.

Member of Program Committee for the first meeting of the Canadian Discrete and Algorithmic Mathematics conference (CANADAM) to be held in Banff, Canada, May 28-31, 2007.

Member of SIAM committee to evaluate travel grants to the next International Conference on Industrial and Applied Mathematics, to be held at ETH, Zurich, July, 2007.

Organizer, Minisymposium on Topological Graph Theory, SIAM Discrete Math Conference, University of Victoria, Canada, June 2006

Chair, SIAM Discrete Math Actiivity Group Nominating Committee, 2005; member 2007.

Member of the Math. Assoc. of Amer. Haimo Teaching Award Committee, 2004 - 2007.

Member of the Assoc. for Women in Math Selection Committee for Post-docs for the 2004 Annual Meetings; mentor for the AWM at the 2004 Annual Meetings, panelist for AWM presentation on "Developing ones career"

Member of the SIAM Coordinating Committee for the Joint Mathematics Meetings, 2003-2005, chair for 2005 meeting

Organizer, "Topics in Topological Graph Theory" minisymposium, SIAM 50th Anniversity and 2002 Annual Meeting, July, 2002.

Member, Editorial Board, Annali Lax New Mathematical Library, Jan. 2001-04

Vice-chair, SIAM Discrete Mathematics Special Interest Activity Group, 2000-2

Member of Organizing Committee, SIAM Discrete Mathematics Conference, Minneapolis, June, 2000

Organizer and co-chair, a Combinatorics and Graph Theory Conference in honor of Herb Wilf's 65th birthday, June 12-15, 1996, University of Pennsylvania, Philadelphia PA

Associate editor of the Journal of Graph Theory since1993 .

Associate editor of the American Mathematical Monthly, 1986-1996; co-editor with Stan Wagon of the Teaching of Mathematics section, 1986-1988, processing over 400 papers.

Reviewer for

Mathematical Reviews since 1976, American Mathematical Monthly (telegraphic reviews) 1978-79, 1990-92., National Science Foundation, Canadian NSERC, Grants for Scientific Research since 1979, Research Experiences for Undergraduates 1990, Undergraduate Research participation program 1979-81, Visiting Professorships for Women,

1985-1987, 1993, College Science Instrumentation Program, 1985 and 1986, AMS-NSA Research Grants since 1992, Cargill, Inc. Eloise Gerry Fellowships 1987

Referee
Acta Informatica, American Mathematical Monthly, Applied Geometry and Discrete Mathematics, V. Klee Festschrift, The College Mathematics Journal , Combinatorica, Computers and Math with Applications, Discrete Applied Mathematics, Discrete and Computational Geometry, Discrete Mathematics, European Journal of Combinatorics, Electronic Journal of Combinatorics, Graphs and Combinatorics, Journal of the Association for Computing Machinery (ACM) , Journal of Algorthms , Journal of the AMS, Journal of Combinatorial Theory, series B, Journal of Graph Algorithms and Applications, Journal of Graph Theory, Mathematica in Education and Research, Mathematics Magazine, Networks, Proceedings of the American Mathematical Society, SIAM Journal of Computing, SIAM Journal of Discrete Mathematics, Transactions of the American Mathematical Society, Transactions on Algorithms, Utilitas Mathematica , Proceedings of the Sixth International Conference on Graphs and Applications, 1988, also Eighth, 1996, and Ninth, 2000, Mathematical Association of America Notes Monographs

Professional Memberships
Member of American Mathematical Society, Mathematical Association of America, Association for Women in Mathematics, Association for Computing Machinery - Special interest group on automata and computing theory, Society for Applied and Industrial Mathematics and Discrete Math. Special Interest Group.

(Selected, recent) Invited Lectures
Jan. 2014 JMM in Baltimore, MAA Special Session on Graphs Don't have to lie flat: the shape of topological graph theory, "Coloring graphs on surfaces, contrasted with coloring on the plane"; AMS Special Sessions on My Favorite Graph Theory Conjectures, "Some of my (and other people's) favorite conjectures on chromatic topological graph theory" and on Topological Graph Theory: Structure and Symmetry, "A variation on Heawood-list-coloring for graphs on surfaces."
Jan. 2013 AMS Special Session on Graph Theory, "List-coloring graphs on surfaces with varying list-sizes".
June 2012 "List-coloring graphs on surfaces with varying list-sizes", Graph

Coloring Minisymposium, SIAM Discrete Math. Conference, University of Dalhousie, Halifax

Oct. 2011 "From crayons to color graphics: how mathematicians use color," AMS Arnold Ross lecture, Minnesota Science Museum, St. Paul

Sept. 2011 "Some problems on list-coloring planar graphs," AWM 40th anniversary meeting, Providence RI

July 2011 On coloring maps and graphs, MathPath summer program, Colorado College

June 2011 CanaDAM, "List-coloring extension results for planar graphs", mini-symposium on Chromatic Numbers of Graphs

May 2011 W-80 - Computer Algebra Research Group, Wilfred Laurier University, WWCA 2011.

Fall 2010, Skidmore College Distinguished Scientist Speaker, "Some uses of color in discrete mathematics'.

June 2010, Extensions of Thomassen's 5-list-coloring theorem, Special Session on Graph Theory and Combinatorics with emphasis on geometric and topological aspects, Eighth International Meeting of the AMS-SMM, Berkeley, CA.

April 2010, An extension of Thomassen's results on 2- and 3-extendable planar graphs, Special Session on Extremal Combinatorics, AMS Central Sectional Meeting, Macalester College.

March 2010, On coloring maps of islands with lots of beach-front properties, Smith College Lunchtime talk.

July 2009, SIAM Annual Meeting, On Decomposition Trees of k-trees representable as Unit Rectangle-Visibility Graphs

May 2009, CanaDAM, Universite de Montreal, A tribute to the memory of Michael O. Albertson, 1946 - 2009.

Jan. 2009 Union College Colloquium, Some mathematical results on art galleries.

Nov. 2008 Colloquium, Iowa State University, Extending (partial_ precoloring of graphs, list-coloring, and how these are connected.

Aug. 2008 Plenary Talk, Graph Theory Conference in honor of C.Thomassen's 60th birthday, Sandjberg, Denmark, Extending precolorings ot list-colorings

May 2008 Cumberland Conference, Vanderbilt University, Exttending precolorings of subgraphs of graphs embedded on surfaces and in general.

Apr. 2008 Invited talks at Smith College: Undergraduate Connecticut Valley Colloquium "On some art gallery theorems" and Discrete Math Day

"Color extension theorems for graphs with excluded minors"

Jan. 2008 Invited talk "On list-coloring outerplanar graphs," AMS Annual Meeting, SIAM Minisymposium on Graph Theory

Mar. 2007 Invited talk "On some extensions on the Art Gallery Theorem," MAA Sectional Meeting, Western Illinois University

Oct. 2006 Invited participant in Topological Graph Theory, PIMS, Banff Conference Center.

Aug. 2006 Invited plenary talk "When three colors suffice" at 4th Young Mathematicians Conference, Ohio State University.

May 2005 Invited talk "Some open problems in graph coloring" at Graph Theory with Altitude, a conference in honor of Joan P Hutchinson on the occasion of her 60th birthday

Mar. 2005 Contributed talk, SEConference on Comb., Graph Th., and Computing, "List-coloring triangulated polygons."

Feb. 2005 Pikes Peak Regional Undergraduate Mathematics Conference keynote speaker, "When three colors suffice."

Oct. 2004 UIUC Research seminar on "Graph color extensions"; also research seminar on "Open problems in graph coloring"

Sept. 2004 California State University at San Marcos, taught a week's class on "Graph Coloring"

Aug. 2004 J. Sutherland Frame lecture at MathFest'04, Providence RI, "When five colors suffice"; also at Discrete Math Days, Colorado College

Dec. 2003, invited speaker at Neil Robertson Celebration, Ohio State University, "Open questions on color-extensions for graphs on surfaces"

Oct. 2003, invited speaker at Amer. Math. Soc. Special Session on Graphs and Digraphs, "On bar-visibility graphs", University of Colorado at Boulder.

Aug. 2003, Discrete Math Days, invited speaker at University of Colorado at Denver, "On visibility graphs."

Apr. 2003 University of Puget Sound, colloquium speaker, "On Visibility Graphs", and mathematics seminar, "Three (or Four) types of graph coloring"

Mar. 2003 Invited main speaker at 34th Southeastern Conference on Combinatorics, Graph Theory and Computing, "Extending pre-colorings of graphs", and "On Visibility Graphs"
Colloquium speaker, Computer Science Department, University of Colorado at Denver, "On Visibility Graphs"

Feb. 2003, Carleton College colloquium speaker, "Three (or Four) Types of Graph Coloring

July 2002, Invited topical speaker at SIAM 50th Anniversary and 2002 Annual

Meeting, Philadelphia, PA, "Some combinatorial aspects of topological graph theory"

June 2002, invited speaker at Conference in honor of Jan Mycielski, "Five-coloring graphs on surfaces"

Apr. 2002, Univ. of Syracuse Math Graduate Student Conference invited speaker , "Coloring graphs on surfaces: when does the embedding make coloring easier and when harder?"

Jan. 2002, Invited speaker in Special Session on Graph Theory, Annual AMS-MAA meetings, San Diego, CA, "Coloring graphs on orientable versus nonorientable surfaces."

May 2001 Invited speaker at University of Colorado at Denver, Combinatorics Seminar, "On 3-coloring more planar graphs and 3- and 4-coloring graphs on surfaces."

Apr. 2001, Invited speaker at Conference in Celebration of Smith College Alumnae Mathematicians, "Coloring maps and graphs on surfaces"

Mar. 2001, Invited speaker at the MAA Michigan Math Problem Contest, "How to color graphs when you have only two or three colors"

Feb. 2001, appointed Van Vleck Visiting Scholar in Mathematics, Wesleyan University, Conn., giving seminar "On 3-coloring more planar graphs and 3- and 4-coloring graphs on surfaces.", also given at 32nd Southeastern Conference on Combinatorics, Graph Theory and Computing, LSU, Baton Rouge.

Dec. 2000, Invited Speaker, 25th Australasian Conference on Combinatorial Mathematics and Combinatorial Computing, University of Canterbury, "On polar visibility graphs," and Algebraic and Topological Methods in Graph Theory 2000, University of Auckland, "On 3- and 4-coloring graphs on surfaces," New Zealand.

Oct. 2000, Noetherian Ring Seminar, Univ. of Calif., Berkeley, CA, and Mathematics Colloquium, Santa Clara University, "How to color graphs with only two or three crayons."

Sept. 2000, paper selected for and presented at Graph Drawing 2000, "On polar visibility graphs", Williamsburg, VA

July 2000, invited speaker, Workshop on Graph Colorings and Homomorphisms, Pacific Institute of Math Science, Simon Fraser University, "On 3- and 4-coloring Eulerian Triangulations of surfaces"

June 2000, invited speaker, Special Session on Graph Coloring,SIAM Discrete Mathematics meeting, Minneapolis, "On 3-Coloring some planar graphs"

Voluntary work

Since 2011 volunteer math tutor, Colorado Mountain College, G.E.D.

preparation class, taught by Laura Pless.

Volunteer, Democratic National Committee 2008, 2012

Since 2007 Volunteer Wilderness Ranger, Friends of the Eagle's Nest Wilderness, Dillon Ranger District