

Ronald J. Gould
Goodrich C. White Professor
August 26, 2008

Personal Data: Born, April 15, 1950 Married
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Emory University Atlanta, GA
Atlanta, Ga. 30322 30345
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(404) 727 - 7580 (dept.)
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Degrees: Ph.D. (1979) Western Michigan University (Mathematics)
M.S. (1978) Western Michigan University (Computer Science)
B.S. (1972) SUNY at Fredonia (Mathematics)

Experience: 1990-date Professor, Emory University
1985-1990 Associate Professor, Emory University
1979-1985 Professor, Emory University
1978-1979 Lecturer, San Jose State University
1973-1979 T. A. and Doctoral Fellow, Western Michigan University
1972-1973 T. A., SUNY at Fredonia

Memberships: Mathematical Association of America (MAA)
American Mathematical Society (AMS)
Society for Industrial and Applied Mathematics (SIAM)
SIAM Activity Group (SIAG) on Discrete Mathematics
Fellow: Institute for Combinatorics and its Applications (ICA)
Association for Computing Machinery (ACM) (1979-95)

Honors: MAA Southeastern Section Distinguished Teaching Award, 2008
Goodrich C. White Chair (Emory University)
Emory Williams Teaching Award 1999 (Emory University)
Charles G. Butler Teaching Award 1976 (Western Michigan University)
Outstanding Alumni Award, S.U.N.Y. Fredonia, 2002
Alumni Achievement Award, Western Michigan University, 2005

Ed. Boards: Ars Combinatoria
J. Combin. Math. and Combin. Computing
J. Combin. Inform. & System Sciences
Involve

Offices: Council of the I.C.A. 1993-2001
CADCOM of I.C.A. 1993-2001 (Advancement of Discrete/Combin. Math)
Cumberland Conference Board of Directors 1987-present
Sites Com. SE Sect. MAA 1982-1985 (Chair-1984-85)

Grants:

Emory University Grants:

- *Research:* (1980, no. 4059/14 \$1200) and (1983-84, no. 8399/02 \$10,000) and (summer 1985, no. 4006 \$3636) and Summer Faculty Development Awards 1982-84, (\$2000 per summer).
- *Teaching:* Support in the Language of Teaching: English as a Second Language and the International Teaching Assistant. With G. Canseco and Jody Usher, 1996-97, \$5000.
- *International Travel:* Travel to British Combinatorial Conference, 1999 (\$1200).
- *ICIS International Travel Grant:* Travel to Japan and China Graph Theory Workshops, 2005 (\$2400). Travel to Denmark, 2008 (\$2400).
- *Emory Conference Subvention Fund:* 20th Cumberland Conference (\$7000) 2007-2008.
- *Special Woodruff Travel Funds:* Travel to Brazil, \$2500, June 2008.

NSF Grants:

- *ISEP Grant:* Undergraduate Microcomputer Laboratory, with K. Mandelberg, 1981-83 (\$41,271).
- *CBMS Regional Conference:* Extremal Graph Theory, Principal Speaker: Béla Bollobás, June 18-22, 1984, Co-director with D. Duffus and P. Winkler, (\$21,400).

Office of Naval Research Grants:

- Applications of Neighborhood Unions and Generalized Degrees to Graph and Network Problems, Contract N00014-88-K-0070, with R. J. Faudree, 1987-90, (\$155,796).
- Applications of Neighborhood Unions and Generalized Degrees to Graph and Network Problems, Grant No. N00014-91-J-1085, with R. J. Faudree, 1990-93, (\$185,000).
- Cumberland Conference Funding, 1991, Grant No. N00014-91-J-1188 (\$5016).
- Strong Connectivity in Graphs and Networks, with R.J. Faudree, 1993-96 , Grant No. N00014-91-J-1085, (\$103,542).
- Support for the 10th Cumberland Conference, 1997. Grant No. N00014-97-1-0175, (\$4995).
- Connectivity and Structure: Building Reliable Communication Networks, Grant No. N00014-97-1-0499, 1997-1999, (\$123,662).

National Security Agency Grants:

- Applications of Neighborhood Unions and Generalized Degrees to Graph and Network Problems: Student Support, Grant Number MDA904-89-H-2036, with R.J. Faudree, 1989-90, (\$26,000).
- Support for the 20th Cumberland Conference, 2007-2008, (\$12,500)

Others:

- **IBM:** Computer Science Development Grant, with K. Mandelberg, 1983-88 (\$150,000).
- **A.T. & T. Grants:** Computer Workstation Grant, with K. Mandelberg and P. Waltman, 1985, (\$100,000).
- UNIX PC Grant, with K. Mandelberg, 1986, (\$75,000).
- **Sears Writing Fellowship:** 1989-90, (\$1200).
- **Argonne Distinguished Visitor Program:** 1989-90, (\$1,500).

Administrative Experience and Service

Departmental

Computer Science Com. 1979-87
Director of Graduate Studies 1982-87
1992-2002

Dept. Ad Hoc Com. 1984-85

Faculty Search Com. 1984-90
Chair, CS Search Com. 1985
CS Search Com. 2005-2006
1990

Dept Chairman 1988-1991
Co-chair, Dept. Teaching Com. 1993-98
Teaching Mentor 1992-present
Acting Chair 2003-2004
Faculty Development Com. 2003-04
Teaching Taskforce 2006-07
Graduate Com 2005-date

University

Graduate Executive Com. 1982-88
Nominating Com. 1986-87
1992-93
Chair 1996-1997
Academic Standards Com. 1986,1988-91
Chair 1990-91
College Executive Com. 1990, 1999-2001
Educational Policy Com. 1990
Release Time Com. 1991
Supercomputing Com. 1991
Grievance Com. 1992-95
Undergrad. Scholars Selection Com. 1993-95
1998
Evaluation of Grad. Teaching 1993-94
Tenure & Promotion Com. 1993-96, Co-chair 95-96
1998-2001, Chair 01
2006-2009
Woodruff Fellowship Selection Com. 1998-2001
McMullum Award Selection Com. 1998
Digital Future Seminar 1999-2001
Search Com. - Assoc. Dean Grad School 2000
Presidential Advisory Com. (PAC) 2001-2004
Emory Williams, CTC, Awards Com. 2002
TATTO Restructuring Com. 2002
Provost Search Com. 2003-2004
Faculty Science Council 2003-2004
ICIS Executive Board of Directors 2004-2007
ICIS Travel Grant Committee 2004-date
Grad School Appointments Com 2006-date

Books:

Graph Theory, Benjamin/Cummings Publishing Co., Menlo Park, CA, 1988.

Mathematics in Sports, Games and Gambling - The Games People Play, Chapman & Hall Publishers, in preparation.

Book Chapters:

Hamiltonian Graphs, in *Handbook of Graph Theory*, ed. J. Gross, J. Yellen and Z. Galil, CRC Press, 2003.

Research Publications:

1974

1. A note on graphs whose neighborhoods are n -cycles, with B. Chilton and A.D. Polimeni, *Geometriae Dedicata*, 3 (1974) 289–294.

1979

2. Homogeneously traceable nonhamiltonian graphs, with G. Chartrand and S.F. Kapoor, *Annals of the N.Y. Acad. of Sci.*, Vol 319 (1979) 130–135.
3. A note on locally connected and hamiltonian - connected graphs, with G. Chartrand and A.D. Polimeni, *Israel Journal of Mathematics*, Vol 33, No. 1, (1979) 5–8.

1980

4. On ramsey numbers of forests versus nearly complete graphs, with G. Chartrand and A. D. Polimeni, *J Graph Theory*, 4 (1980) 233–239.
5. The min-max super graph, with G. Chartrand and S.F. Kapoor, *Math. Slovaca* 30 (1980) No. 2, 175–179.
6. Some ramsey type results on trees versus complete graphs, with G. Chartrand and A.D. Polimeni, Proceedings of the 10-th Southeastern Conference on Combinatorics, Graph Theory, and Computing (Boca Raton), *Congressus Numeratium* 23 (1980) 241–249.

1981

7. Degree sets for homogeneously traceable nonhamiltonian graphs, *Colloquium Mathematicum*, Vol 45 No. 1, (1981) 155–158.
8. On line graphs and the hamiltonian index, *Discrete Mathematics*, 34 (1981) 111–117.
9. Bigraphical sets, with G. Chartrand, A.D. Polimeni, C. Wall, *The Theory and Applications of Graphs*, ed. by Chartrand, Alavi, Goldsmith, Lesniak and Lick, (1981) 181–187.
10. Forbidden subgraphs and the hamiltonian theme, with D. Duffus and M.S. Jacobson, Invited paper for: *The Theory and Applications of Graphs*, ed. by Chartrand, Alavi, Goldsmith, Lesniak and Lick, (1981) 297–316.

11. Graphs with prescribed degree sets and girth, with G. Chartrand and S.F. Kapoor, *Periodica Mathematica Hungarica*, Vol 12 , No. 4, (1981) 261–266.
12. A note on the ramsey number for the union of graphs versus many graphs, with M.S. Jacobson, *Congressus Numerantium*, Vol 33, (1981) 39–43.
13. $(D; n)$ -Cages, with M. Downs, J. Mitchem, F. Saba, *Congressus Numerantium*, Vol 32, (1981) 279–293.

1982

14. Bounds for the ramsey number of a disconnected graph versus any graph, with M.S. Jacobson, *J Graph Theory*, Vol 6 (1982) 413–417.
15. Forbidden subgraphs and hamiltonian properties of graphs, with M.S. Jacobson, *Discrete Mathematics*, 42 (1982) 189–196.

1983

16. On the ramsey number of trees versus graphs with large clique number, with M.S. Jacobson, *J Graph Theory*, Vol 7, No. 1, (1983) 71–78.
17. Traceability in the square of a tree, *Journal of Combinatorics, Information & System Sciences* 8 (1983), no. 4, 253–260.

1984

18. Degree sets and graph factorization, with D. Lick, *Colloquium Mathematicum* 48 (1984), no. 2, 269–277.
19. A note on mixed ramsey numbers, total chromatic number versus graphs, with M.S. Jacobson, *Journal of Combinatorics, Information & System Sciences* 8 (1984), 147–154.
20. Forbidden subgraphs and hamiltonian properties in the square of a graph, with M.S. Jacobson, *J Graph Theory*, 8 (1984), 147–154.

1985

21. A recursive algorithm for hamiltonian cycles in the $(1, j, n)$ -Cayley graph of the alternating group, with R. Roth, Invited paper for: Graph Theory with Applications to Algorithms and Computer Science, Wiley - Interscience, New York, (1985), 351–369.

1987

22. Cayley graphs and $(1, j, n)$ -sequencings of the alternating group A_n , with R. Roth, *Discrete Math.*, 66 (1987) 91–102.
23. Extremal problems involving neighborhood unions, with R.J. Faudree, M.S. Jacobson, and R.H. Schelp, *J Graph Theory*, 11 (1987), 555–564.
24. Goodness of trees for generalized books, with S. Burr, P. Erdős, R.J. Faudree, M.S. Jacobson, C.C. Rousseau, and R.H. Schelp, *Graphs and Combinatorics*, 3 (1987), 1–6.
25. Neighborhood conditions and edge disjoint hamiltonian cycles, with R.J. Faudree and R.H. Schelp, *Congressus Numerantium*, 59 (1987), 55–68.

1988

26. Neighborhood closures for graphs, with R.J. Faudree, M.S. Jacobson and L. Lesniak, *Colloquia Mathematica Societatis Janos Bolyai*, 52 (1988), 228–237.
27. Graphs with an ascending subgraph decomposition, with R. J. Faudree, M. S. Jacobson and L. Lesniak. *Congressus Numerantium* 65 (1988), 33–42.

1989

28. Neighborhood unions and hamiltonian properties in graphs, with R.J. Faudree, M.S. Jacobson, and R.H. Schelp, *J. Combin. Theory B*, 46 (1989), 1–20.
29. Some extremal problems involving adjacency conditions for vertices at distance two, with T. Lindquister, Invited paper for: Recent Studies in Graph Theory, edited by V. R. Kulli, Vishwa International Publications, (1989), 140–148.
30. On a neighborhood condition implying the existence of disjoint complete graphs, with R. J. Faudree, M. S. Jacobson and L. Lesniak, *European Journal of Combinatorics*, 10 (1989), 427–433.
31. Menger path systems, with R.J. Faudree and R. Schelp, *J. Combin. Math. and Combin. Computing* 6 (1989), 9–21.

1990

32. An ascending subgraph decomposition for forests, with R. J. Faudree, *Congressus Numerantium* Vol. 70, (1990), 221–230.
33. Monochromatic coverings in colored complete graphs, with P. Erdős, R.J. Faudree, A. Gyárfás, C. Rousseau, and R. H. Schelp, *Congressus Numerantium* Vol. 71, (1990), 29–38.
34. Two - irregular graphs, with R. J. Faudree, M. S. Jacobson and R. H. Schelp, *Topics in Combinatorics and Graph Theory, Essays in Honour of Gerhard Ringel*, (Oberwolfach, 1990), 239–248 Physica-Verlag, Heidelberg, (1990), edited by R. Bodendiek.
35. Lower bounds for lower ramsey numbers, with R. J. Faudree, M.S. Jacobson and L. Lesniak, *J Graph Theory*, Vol. 14, No. 6 (1990), 723–730.
36. On a generalization of Ore's theorem for hamiltonian-connected graphs, with N. Dean and T. Lindquister, *Congressus Numerantium* Vol. 78 (1990), 207–215.

1991

37. Hamiltonian properties and adjacency conditions in $K_{1,3}$ -free graphs, with R. J. Faudree and T. Lindquister, *Graph Theory, Combinatorics, and Applications*, Vol. 1, (1991), 467–480.
38. Bounds on the number of isolated vertices in sum graphs, with V. Rödl, Invited paper for: *Graph Theory, Combinatorics, and Applications*, Vol. 1 (1991), 553–562.
39. Neighborhood unions and highly hamiltonian graphs, with R. J. Faudree, M.S. Jacobson and L. Lesniak, *Ars Combinatoria*, 31 (1991), 139–148.
40. Neighborhood conditions and edge-disjoint perfect matchings, with R. J. Faudree and L. Lesniak, *Discrete Math.* 91 (1991), 33–43.

41. Neighborhood intersections and a generalization of Ore's theorem, with M. S. Jacobson, *Graph Theory, Combinatorics, Algorithms and Applications*, Edited by Y. Alavi, F. Chung, R. Graham, D. Hsu, (1991), 198–206.
42. Updating the Hamiltonian problem - a survey, *J Graph Theory*, Vol. 15, No. 2, (1991), 121–157.
43. Generalized degrees, connectivity and hamiltonian properties in graphs, with R. J. Faudree, M. S. Jacobson and L. Lesniak, *Journal of Combinatorics, Computing and Information Sciences*, Vol. 16, Nos.1-2, (1991), 93–105.
44. On rotation numbers for digraphs, with G. Chartrand, E. Kubicka and G. Kubicki, *Advances in Graph Theory*, ed. by V.R. Kulli, (1991), 104–120.
45. On a conjecture of Seymour, with R. J. Faudree, M.S. Jacobson and R. H. Schelp, *Advances in Graph Theory*, ed. by V.R. Kulli, (1991), 162–170.

1992

46. On independent generalized degrees and independence numbers in $K_{1,3}$ -free graphs, with R.J. Faudree, M.S. Jacobson, T.E. Lindquester and L. Lesniak, *Discrete Math.* 103 (1992), 17–24.
47. Neighborhood unions and a generalization of Dirac's theorem, with R.J. Faudree, M.S. Jacobson and L. Lesniak, *Discrete Math.* 105, (1992), 61–71.
48. Generalized degrees and Menger path systems, with R. J. Faudree and L. Lesniak, Invited paper for: A special edition of Discrete Applied Mathematics on Interconnection Networks. *Discrete Applied Math.* 37/38, (1992), 179–191.
49. A generalization of Dirac's theorem for $K_{1,3}$ -free graphs, with R. J. Faudree, M.S. Jacobson, T.E. Lindquester and L. Lesniak, *Periodica Mathematica Hungarica* Vol. 24 (1) (1992), 37–54.
50. On the ascending subgraph decomposition problem, with R.J. Faudree, M. S. Jacobson and L. Lesniak, *Utilitas Math.* 41 (1992) 33–40.
51. A characterization of influence graphs of a prescribed graph, with G. Chen, M. S. Jacobson, R. H. Schelp, and D. West, *The Vishwa International J. Graph Theory*, Vol. 1, No. 1, (1992), 77–81.

1993

52. Generalized degree sums and hamiltonian graphs, with Avrim Blum, *Ars Combinatoria* 35-A (1993), 35–54.
53. A note on isomorphic subgraphs, with V. Rödl, *Discrete Math.* 118 (1993), 259–262.

1994

54. Neighborhood unions and the cycle cover number of a graph, with G. Chen, M. S. Jacobson and R. H. Schelp, *J Graph Theory* Vol. 18, No. 7 (1994), 663–672.
55. On hamiltonian-connected graphs, with X. Yu. *J Graph Theory*, Vol. 18, No. 8 (1994), 841–860.
56. Generalized degrees and short even cycles, with D. Knisley, *Congressus Numeratum* 103 (1994), 21–25.

1995

57. Degree conditions and cycle extendability, with R. J. Faudree, M. S. Jacobson, and L. Lesniak, *Discrete Math.* 141 (1995), 109–122.
58. Generalized degree conditions for graphs with bounded independence number, with R. J. Faudree, L. Lesniak and T. Lindquester, *J Graph Theory*, Vol. 19, No. 3, (1995), 397–409.
59. Extremal graphs for intersecting triangles, with P. Erdős, Z. Füredi and D. Gunderson, *J Combin. Theory B*, Vol 64, No. 1 (1995), 89–100.
60. Problems involving paths and cycles in graphs, *Congressus Numerantium* Vol 106 (1995), 119–127.
61. Hamiltonicity of balanced k -partite graphs, with G. Chen, R. J. Faudree, M. S. Jacobson and L. Lesniak, *Graphs and Combinatorics*, 11 (1995), 221–231.
62. Spanning caterpillars with bounded diameter, with R.J. Faudree, M.S. Jacobson and L. Lesniak, *Discussiones Mathematicae Graph Theory* 15 (1995), 111–118.
63. Forbidden triples of subgraphs and traceability, with J. Harris, *Congressus Numerantium*, 108 (1995), 183–192.
64. Forbidden subgraphs and pancyclicity, with R. J. Faudree, Z. Ryjacek and I. Schiermeyer, *Congressus Numerantium* 109 (1995), 13–32.

1996

65. On p -intersection representations, with V. Rodl and N. Eaton. *J Graph Theory*, Vol. 21, No. 4 (1996), 377–392.
66. Graph spectra, with R. J. Faudree, M. S. Jacobson, J. Lehel and L. Lesniak, *Discrete Math.* 150 (1996), 103–113.
67. Extremal theory for cliques in graphs, Special Edition ed. by G. Chartrand and M. S. Jacobson, *Congressus Numerantium*, 116 (1996), 115–137.

1997

68. On the number of cycles in a 2-factor, with S. Brandt, G. Chen, R.J. Faudree, and L. Lesniak, *J. Graph Theory*, Vol. 24, No. 2, (1997), 165–173.
69. Characterizing forbidden pairs for hamiltonian properties, with R.J. Faudree. *Discrete Math.* 173 (1997), 45–60.

1998

70. Intersections of longest cycles in k -connected graphs, with G. Chen and R.J. Faudree, *J. Combin. Theory B*, Vol. 72, No. 1, (1998), 143–149.
71. Traceability in graphs with forbidden triples of subgraphs, with J. Harris, *Discrete Math.* 189 (1998), no. 1-3, 123–132.

1999

72. On 2-factors containing 1-factors in bipartite graphs, with G. Chen and M.S. Jacobson, Proceedings of British Comb. Conference, *Discrete Math.* 197/198 (1999), 185–194.
73. A note on cycles in 2-factors of line graphs, with Emily Hynds, *Bull. of the I.C.A.*, Vol. 26 (1999), 46–48.
74. On the Structure of Ryjacek-closed $\{K_{1,3}, N_2\}$ -free graphs, with G. Acree and J. Harris, *Combinatorics, Graph Theory, and Algorithms*, Ed. by Alavi, Lick and Schwenk, Vol. I (1999), 11–21.
75. On G -potential degree sequences, with M.S. Jacobson and J. Lehel, *Combinatorics, Graph Theory, and Algorithms*, Ed. by Alavi, Lick and Schwenk, Vol. I (1999), 387–400.
76. On k -linked graphs, with R. J. Faudree, R. Schelp and T. Lindqvester, *Combinatorics, Graph Theory, and Algorithms*, Ed. by Alavi, Lick and Schwenk, Vol. II (1999), 451–460.
77. Forbidden triples and traceable trpaths: A characterization, with J. Harris, *Discrete Math.* 203 (1999), 101–120.

2000

78. Short cycles in hamiltonian graphs, with R.J. Faudree, M.S. Jacobson and L. Lesniak, **Bull. I.C.A.**, Vol. 28, (2000), 89–98.
79. On k -ordered graphs, with J.R. Faudree, R.J. Faudree, M.S. Jacobson and L. Lesniak, *J. Graph Theory* Vol 35 No. 2 (2000), 69–82.
80. Cycles in 2-factors of balanced bipartite graphs, with G. Chen, R.J. Faudree, L. Lesniak, and M.S. Jacobson, *Graphs and Combinatorics* 16 (2000) no. 1, 67–80.
81. Hamiltonian connected graphs involving forbidden subgraphs, with G. Chen, **Bull. I.C.A.** 29 (2000), 25–32.
82. Cycles in 2-factors of claw-free graphs, with G. Chen, J.R. Faudree, and A. Saito, *Discuss. Math. - Graph Theory* 20 (2000), no. 2, 165–172.
83. The structure of $\{K_{1,3}, Z_2\}$ -free graphs, with A. Fuller and A. Wolf, *Congressus Numeratum* 142 (2000), 129–147.

2001

84. Complete families of graphs, with R.J.Faudree, M.S. Jacobson and L. Lesniak, *Bull. of the I.C.A.*, Vol. 31 (2001), 39–44.
85. Two-factors with few cycles in claw-free graphs, with M.S. Jacobson, *Discrete Math.* 231 (2001), no. 1-3, 191–197.
86. Results on degrees and the structure of 2-factors, Special Issue of *Discrete Math.* dedicated to Paul Catlin, Vol 230 (2001), 99–111.
87. Path spectra and forbidden families, with Allen Fuller, *Ars Combinatoria*, 58 (2001), 161–167.
88. Edge disjoint monochromatic triangles in 2-colored graphs, with P. Erdo:s, R. J. Faudree, M.S. Jacobson and J. Lehel, *Discrete Math.* 231 (2001), no. 1-3, 135–141.

89. Partitioning the vertices of a tournament into independent cycles, with G. Chen and Li Ho, *J. Combin. Theory Ser. B.* 83 (2001), no. 2, 213–220.
90. 2-Factors and forbidden subgraphs, with E. Hynds, *Congressus Numeratum* 149 (2001), 201–209.

2002

91. Characterizing forbidden clawless triples implying hamiltonian graphs, with R.J.Faudree, M.S. Jacobson and L. Lesniak, *Discrete Math.* 249 (2002) no. 1-3, 71–81.
92. On graph irregularity strength, with A. Freize, M. Karonski and F. Pfender, *J. Graph Theory*, 41 (2002), no. 2, 120–137.
93. A note on cycle lengths in graphs, with P. Haxell and A. Scott, **Graphs and Combinatorics** 18 (2002) 3, 491–498.
94. Pancyclicity in claw-free graphs, with F. Pfender. *Discrete Math.* 256 (2002), no. 1-2, 151-160.
95. Spanning tree edge densities, with M. Ferrara and C. Suffel, *Congressus Numerantium* 154 (2002), 155–163.

2003

96. Degree conditions for k -ordered graphs, with R.J. Faudree, A. Kostochka, L. Lesniak, I. Schiermeyer, A. Saito, *J. Graph Theory* 42, No. 3, (2003), 199–210.
97. Advances on the hamiltonian problem: A survey, *Graphs and Combinatorics*, 19 (2003), No. 1, 7–52.
98. On k -ordered bipartite graphs, with J. Faudree, F. Pfender and A. Wolf, *Electron. J. Combin.* 10 (2003), no. 1, Research Paper 11, 12 pages (electronic).
99. Graph connectivity after path removal, with G. Chen and X. Yu, *Combinatorica* 23 (2003), no. 2, 185–203.
100. Extremal graphs for intersecting cliques, with G. Chen, F. Pfender and B. Wei, *J. Combin. Theory B* 89 (2003), 159–171.

2004

101. New conditions for k -ordered hamiltonian graphs, with G. Chen, and F. Pfender, *Ars Combinatoria*, 70 (2004), 245–255.
102. Locally semicomplete digraphs with a factor composed of k cycles, with Yubao Guo, *Journal of the Korean Mathematical Society*, 41 (2004), No. 5, 895–912.
103. Generalizing pancyclic and ordered graphs, with R.J. Faudree, M.S. Jacobson and L. Lesniak, *Graph and Combinatorics*, 20 (2004), no. 3, 291–309.
104. Toughness, degrees and 2-factors, with R.J. Faudree, L. Lesniak, M.S. Jacobson and A. Saito, *Discrete Math.*, 286 (2004), no. 3, 245–249.
105. Pancyclicity in 3-connected graphs: forbidden pairs, with T. Luczak and F. Pfender, *J. Graph Theory*, 47 (2004), no. 3, 183–202.
106. Linear forests and ordered cycles, with G. Chen, R.J. Faudree, M.S. Jacobson, L. Lesniak and F. Pfender, *Discussiones Mathematicae - Graph Theory*, 24 (2004) 359–372.

107. Variations of pancyclic graphs, with J.R.Faudree, R.J. Faudree, M.S. Jacobson and L. Lesniak. *Journal of Combinatorial Mathematics and Combinatorial Computing* 51(2004), 33–48.
108. Forbidden triples implying hamiltonicity: for all graphs, with R.J. Faudree and M.S. Jacobson. *Discussiones Mathematicae - Graph Theory*. 24 (2004), no. 1, 47–54.

2005

109. Graph minors and linkages, with G. Chen, K. Kawarabayashi, F. Pfender and B. Wei, *J. Graph Theory*, 49(2005), No. 1, 75–91.
110. A note on neighborhood unions and independent cycles, with J. R. Faudree. *Ars Combinatoria*, 76(2005), 29–31.
111. Potential forbidden triples implying hamiltonicity: for sufficiently large graphs, with R. Faudree and M.S. Jacobson, *Discussiones Mathematicae - Graph Theory*. 25(3) (2005), 273–289.
112. A note on 2-factors with two components, with R.J.Faudree, M.S. Jacobson, L. Lesniak and A. Saito, *Discrete Math.* 300(2005), 218–224.
113. Minimal degree and (k, m) -pancyclic ordered graphs, with R.J. Faudree, M.S. Jacobson and L. Lesniak, *Graphs and Combinatorics*, 21(2005), 197–211.

2006

114. Distance between two k -sets and path-systems extendibility, with T. Whalen, *Ars Combinatoria* 79 (2006), 211-228..
115. Constructive upper bounds for cycle saturated graphs, with T. Luczak and J. Schmitt, *Elec. J. Combin.* Volume 13(1), (2006), R29 - 19pp.
116. A note on 2-factors in line graphs, with E. Hynds, *Bull. of the I.C.A.* 47 (2006), 58–62.
117. On H -linked graphs, with M. Ferrara, G. Tansey and T. Whalen, *Graphs and Combinatorics*. 22(2006), no. 2, 217-224.
118. Cycle extendability of hamiltonian interval graphs, with G. Chen, R.J. Faudree and M.S. Jacobson. *SIAM J. Discrete Math.* Vol. 20 (2006), No. 3, 682-689.
119. On the extremal number of edges in 2-factor hamiltonian graphs, with R. Faudree, and M.S. Jacobson, *Trends in Mathematics: Graph Theory in Paris* ed. by A. Bondy, J. Fonlupt, J-L Fouquet, J-C. Fournier, J. Alfonsin, Birkhauser Verlag, Basel/Switzerland, (2006), 139-148.
120. On Minimum degree implying a graph is H -linked, with Alexandr Kostochka and Gexin Yu, *SIAM J. Discrete Math.* Vol. 20, No. 4, (2006), 829-840.
121. A new sufficient condition for Hamiltonian graphs, with Zhao, K., *Arkiv for Matematik*, 44 (2006), no. 2, 299-308.

2007

122. Minimum degree and the minimum size of K_2^t -saturated graphs, with J. Schmitt. *Discrete Math.* 307 (2007), 1108-1114.

- 123. Subdivision extendibility, with T. Whalen, *Graphs and Combinatorics* 23(2007), no. 2, 165–182.
- 124. On the extremal number of edges in 2-factor hamiltonian graphs,. Graph Theory in Paris, 139–148, Trends in Math., Birkhauser, Basel, 2007.
- 125. Graphic sequences with a realization containing a friendship graph, with M. Ferrara and J. Schmitt. *Ars Combinatoria*. Vol. 85(2007), 161-171.
- 126. The Chvátal-Erdős condition and 2-factors with a specified number of components. With G. Chen, K. Kawarabayashi, K. Ota, A. Saito, and I. Schiermeyer. *Discussiones Math. - Graph Theory*, 27(2007), 401-407.

To Appear

- 127. The structure and existence of 2-factors in iterated line graphs, with M. Ferrara and S. Hartke, *Discussiones Math. - Graph Theory*.
- 128. Pancyclic graphs and linear forests, with R. J. Faudree and M. S. Jacobson, *Discrete Math*.
- 129. A look at cycles containing specified elements of a graph, *Discrete Math*.
- 130. On H -immersions, with M. Ferrara, G. Tansey and T. Whalen, *J. Graph Theory*
- 131. Using edge swaps to prove the Erdős-Jacobson-Lehel conjecture, with M. Ferrara and J. Schmitt, *Bulletin of the I.C.A.*.
- 132. tK_p -Saturated Graphs of Minimum size, with R.J. Faudree, M.S. Jacobson and M. Ferrara, *Discrete Math*.
- 133. Minimum degree and pan- k -linked graphs, with J. Powell, B. Wagner and T. Whalen, *Discrete Math*.

Papers Submitted:

- 134. Saturation numbers for books, with R.J. Faudree and G. Chen, *Elect. J. Combin.*
- 135. Chvátal-Erdős type theorems , with J.R. Faudree, R.J.Faudree, M.S. Jacobson and C. Magnant.
- 136. Disjoint hamiltonian cycles in bipartite graphs, with M. Ferrara, G. Tansey and T. Whalen. Submitted to *Discrete Math*.
- 137. On a generalization of a result of Catlin, with E. Hynds. Submitted to the *Elect. J. Combin.*
- 138. Graphic Sequences with a realization containing a complete multipartite subgraph, with G. Chen, M. Ferrara, and J. Schmitt. Submitted to *Discrete Math*.
- 139. Distributing elements on hamiltonian cycles, with R.J.Faudree, M.S. Jacobson and C. Magnant. Submitted to *Journal of Graph Theory*.

Papers in Preparation:

140. Irregularity strength of trees, with M. Ferrara, M. Karonski and F. Pfender.
141. On Rainbow Ramsey Numbers, with R. Faudree, M. Jacobson and C. Magnant.
142. Forbidden triples including $K_{1,3}$ implying hamiltonicity: for all sufficiently large graphs. With R.J. Faudree and M.S. Jacobson.
143. Saturation numbers for trees, with J.R. Faudree, R.J. Faudree and M.S. Jacobson.
144. Saturation numbers for K_4 -free graphs, with J.R. Faudree and K. Amin.
145. Results on 4-connected claw-free graphs, with M. Ferrara, S. Gehrke, C. Magnant, and J. Powell.
146. A note on forbidden subgraphs, with G. Chen and A. Saito.

Supplementary Material:

Professional Services:

- Assistant Director of the 3rd International Conference on the Theory and Applications of Graphs, May, 1976, Kalamazoo, Mi.
- Editor of the Graph Theory Newsletter, 1977 - 1978.
- Co - Director of Emory's Conference on Combinatorics, May, 1982.
- Assistant, Southeastern Section Meeting of the Mathematical Association of America, April, 1982, Atlanta, GA.
- Organizer, Special Session on Graph Theory, Southeastern Section Meeting of the Mathematical Association of America, April, 1983, Charleston, SC.
- Co-director of NSF - CBMS Regional Conference on Extremal Graph Theory, June 18-22, 1984, Emory University, Principal Speaker: Be'la Bolloba's.
- Co-Organizer, Special Session on Graph Theory, National Winter Meeting of the Mathematical Association of America and the American Mathematical Society, (with M. S. Jacobson), January, 1988, Atlanta, Ga.
- Tenure and promotion reviews for a variety of universities.
- Consultant - Program reviews in mathematics, computer science and statistics, Memphis State University, 1988.
- Text reviewer in mathematics and computer science for: Wadsworth, Addison-Wesley, Harper & Row, Benjamin/Cummings, West, and Worth Publishing Companies.
- Reviewer for the Discrete Mathematics Section of the MAA Basic Library List.
- Director, 4th Cumberland Conference, May 16-18, 1991, Emory University.
- Grant Reviewer: NSF-Algebra and Number Theory, NSF-VWP Program, NSA - Discrete Mathematics Program, National Research Council - Research Leave Program, National Research Council of Canada, National Research Foundation of South Africa.
NSF Discrete Math. Panel, December, 2005. NSA Discrete Math. Panel, 2007-2008.
- Referee: J. Graph Theory, Amer. Math. Monthly, J. Combin. Theory A & B, Discrete Math., SIAM J. Discrete Math., Ars Combinatoria, Graphs and Combinatorics, JCMCC, Bull. I.C.A. and many others.
- Outside reader for Ph.D. Theses, Western Michigan University, Arizona State University, Paris SUD and others.
- National Faculty Workshop for Atlanta Middle School Mathematics Teachers, August, 1996.
- Director, 10th Cumberland Conference, May 16-18, 1997.
- Co-Organizer (with R.J. Faudree), DIMACS DREI Conference on Paths and Cycles, July 20-24, 1998, Rutgers University.
- Organizer, SIAM Minisymposium - Results in Structural Graph Theory, May 12-15, 1999, Atlanta.
- Danish Doctorate Committee for Jorgen Bang-Jensen, 2001-2002.
- Emory TATTO Summer Course: Lectures on Teaching with Technology, Writing as a teaching tool in the sciences, Microteaching.

- Organizer, 20th Cumberland Conference, Emory University, May 17-19, 2007.
- President Le Jurie, Ph.D. defense, Wang Guanghui, Beijing, China, July 4, 2007.
- NSA Research and Conference Proposal Panel, 2008.

Ph. D. Theses Directed:

1. Joseph Sherr, General and connected ramsey theory, 1987.
2. Terri Lindquister, The effects of distance and adjacency conditions on hamiltonian graphs, 1988.
3. F. Glenn Acree, Hamiltonian problems and the forbidden subgraph method, 1994.
4. John Harris, Forbidden triples of subgraphs and traceability, 1995.
5. Blayne Carroll, Subgraph transformations: A generalization of line graphs, 1995.
6. Allen Fuller, On $\{K_{1,3}, Z_2\}$ -free graphs, 1996.
7. Jill Faudree, 2-Factors and k -orderability in graphs, 1998.
8. Allison Wolf, A bound on the chromatic number of graphs determined by forbidden subgraphs, 1999.
9. Emily Hynds, 2-Factors and line graphs, 2000.
10. Jason Hunt, Forbidden subgraphs in pancyclic graphs, 2001.
11. Florian Pfender, Four problems in extremal graph theory, 2002.
12. Thor Whalen, Degree conditions and relations to distance, extendibility, and levels of connectivity in graphs, 2003.
13. John Schmitt, On potentially P -graphic degree sequences and saturated graphs, May, 2005.
14. Mike Ferrara, The degree stripping method for potentially H -graphic sequences, August 2005.
15. Gerry Tansey, Strong connectivity and cycles in graphs, August, 2005.
16. Brian Crane, Forbidden subgraphs and (k, m) -pancyclic graphs, August, 2005.
17. Jeff Powell, Two problems concerning connectivity in graphs, August, 2006.
18. Brian Wagner, Subgraph sequences in graphs and digraphs, August, 2006.
19. Colton Magnant, Partitions of graphs under distance constraints, May, 2008.
20. Kinnari Patel Amin, in progress.
21. Silke Gehrke, in progress.
22. Paul Wrayno, in progress.

Masters Theses Directed:

1. Donald Hayes, A linear algorithm to test planarity, 1982.
2. Warren Dranit, The maximization of flows in networks, 1982.
3. Billy White, A study of selected job scheduling algorithms, 1983.

4. Greg Smith, Search procedures on labeled graphs, 1983.
5. Carolyn Weber, The graph isomorphism problem, 1984.
6. Julia Torbert, The bandwidth reduction problem, 1984.
7. Joseph Sherr, Graph matching algorithms, 1986.
8. Jung Cho, Transitive orientation and recognition of comparability graphs, 1986.
9. Daniel Huntington, Domination in graphs, 1986.
10. Mohammed Oumarane, Relational data bases and normal forms, 1987.
11. Djamel Bennacer, On the theory and applications of the network simplex method, 1987.
12. Holly Heath, On the trail of eulerian circuits, 1988.
13. Chang Gee, PQ-tree planarity testing, 1989.
14. Raymond Leung, A study of graph coloring algorithms, 1989.
15. Wayne Standard, A comparison of two algorithms for finding hamiltonian cycles in random graphs, 1989.
16. Gary Moland, A probabilistic approach to finding hamiltonian paths in random graphs, 1992.
17. Virginia Wright, n -Tuple vertex graphs, 1992.
18. David Weinreich, On the structural properties of n -tuple vertex graphs, 1993.
19. Tonya Jones, The structure of maximal matchings in graphs, 1993.
20. Julie Sult, Hamiltonian paths and cycles in vertex transitive graphs, 1994.
21. Greg Shapiro, On the traveling salesman problem, 1996.
22. Laura Bass Lowery, Degree sequences and graph properties, 1998.
23. Wiebka Wittmuess, Random regular graphs and contiguity, (codirected with Michal Karonski) 2002.
24. Andrzej Dudek, Planar ramsey numbers, 2006 (co-directed with V. Rodl).
25. Jake McMillen, in progress.

Honors Theses Directed:

- Carolyn Weber, Lossless joins in relational data bases, 1982.
- Alexandra Laub, Greedy algorithms, 1986.
- Marc Ochs, An introduction to graph ramsey theory, 1992.

Invited Talks:

- Colloquium, Emory University, Feb., 1979.
- Colloquium, Western Illinois University, March, 1979.
- Colloquium, Franklin and Marshall College, March, 1979.
- Colloquium, Clemson University, March, 1980.

- Fourth International Conference on the Theory and Applications of Graphs, Western Michigan University, June, 1980.
- Colloquium, University of Louisville, November, 1980.
- Special Session on Graph Theory, Southeastern Section Meeting of the MAA, The Citadel, Charleston, SC, April, 1981.
- Session on Combinatorics, Southeastern Section Meeting of the MAA, Emory University, Atlanta, GA, April, 1982.
- Mini - Conference on Ramsey Theory, University of Louisville, July, 1983.
- Fifth International Conference on the Theory and Application of Graphs, Western Michigan University, June 4-8, 1984.
- Colloquium, University of Louisville, June 1, 1984.
- 820th Meeting of the American Mathematical Society, Mobile, AL, May 3-4, 1984.
- Colloquium, Mercer University, Macon, GA, April, 1985.
- Colloquium, Western Carolina University, April, 1985.
- Colloquium, Memphis State University, Oct. 1986.
- SIAM Southwest Regional Conference, North Texas State University, Oct. 1986.
- Clemson Mini-Conference on Discrete Mathematics, Clemson University, Oct., 1987.
- Annual Meeting of the Georgia Academy of Science, Augusta, GA, April, 1988.
- Colloquium, Morehouse University, Atlanta, GA, April, 1988.
- Sixth International Conference on the Theory and Application of Graphs, Western Michigan University, May-June, 1988.
- University of Vermont Workshop on Combinatorics and Graph Theory, Burlington, VT, July, 1988.
- O.N.R. Workshop on Networks, Clemson University, August, 1988.
- Colloquium, Rhodes College, Memphis, TN, November 14, 1988.
- Colloquium, Memphis State University, November 15, 1988.
- Second Cumberland Conference, Memphis State University, May, 1989.
- The Second International Conference on Graph Theory, San Francisco, July, 1989.
- Colloquium, Spellman College, Atlanta, GA, Feb. 27, 1990.
- Theoretical Computer Science Seminar, Georgia Tech., Atlanta, GA, Feb. 14, 1992.
- 5-th Cumberland Conference, East TN State University, May, 1992.
- NSF Conference on Hamiltonian Graphs, University of Louisville, May, 1992.
- 7-th International Conference on Graph Theory, Western Michigan University, June, 1992.
- 881-st meeting of the American Mathematical Society, Howard University, Washington, D.C., April 17-18, 1993.
- 890-th Meeting of the American Mathematical Society, University of Kentucky, Lexington, Kentucky, March 18-19, 1994.

- SIAM Meeting on Discrete Math., Albuquerque, NM, June, 1994.
- 24th Manitoba Conference on Combinatorial Mathematics and Combinatorial Computing, University of Manitoba, Oct. 1-2 1994.
- Colloquium, Georgia State University, Nov. 4, 1994.
- 101st Annual Meeting of the AMS, Special Session on Graph Theory, Jan. 1995.
- Colloquium, Mathematics, Georgia Tech., April 6, 1995.
- Colloquium, North Dakota State University, June 15, 1995.
- Colloquium, Wake Forest University, October 3, 1995.
- Combinatorics Seminar, Wake Forest University, Oct. 5, 1995.
- Clemson mini-Conference on Discrete Mathematics, Clemson University, Oct. 13, 1995.
- Combinatorics Seminar, University of Louisville, November 3, 1995.
- AMS-SMM Joint Mathematics Meeting, Guanajuato, Mexico, Nov. 30, 1995.
- 9th Cumberland Conference, University of Mississippi, May 24-26, 1996.
- Paul Catlin Memorial Workshop, Western Michigan University, June 1-2, 1996.
- 8th International Conference on Graph Theory, Combinatorics and Applications, Western Michigan University, June 3-7, 1996.
- AMS regional meeting - University of Memphis, March 21-22, 1997.
- Principle Speaker, North Carolina Mini-Conference of Discrete Mathematics, Wake Forest University, April 18, 1997.
- AMS Regional Meeting, Louisville, KY, March 20-21, 1998.
- Colloquium, Georgia State University, April 3, 1998.
- 11th Cumberland Conference, East Tennessee State University, May, 1998.
- DIMACS, DREI Week on Paths and Cycles, Plenary talk, Rutgers University, July 26, 1998.
- Colloquium, Appalachian State University, Oct. 8, 1998.
- AMS Regional Meeting, Special Session on Graph Theory, Wake Forest University, Oct. 9-10, 1998.
- Colloquium, West Virginia University, Oct. 22, 1998.
- ACOSTA, Plenary Talk, Oaxaca, Mexico, Nov. 29-Dec. 4, 1998.
- AMS Regional Meeting, University of Illinois, March 18-21, 1999.
- AMS Regional Meeting, University of Nevada, Las Vegas, April 10-11, 1999.
- British Combinatorial Conference, University of Kent, Canterbury England, July 12-16, 1999.
- Colloquium, Western Michigan University, Oct. 27, 1999.
- Seminar, Western Michigan University, Oct. 28, 1999.
- XXXII Mighty Meeting, Indiana University-Purdue University, Fort Wayne, IN, Oct. 30, 1999.

- 9th International Conference on Graph Theory, Combinatorics and Applications, Western Michigan University, June 5-9, 2000 (Principle Lecture).
- Workshop on Graph Decompositions, Simon Fraser University, Vancouver, B.C., June 19-30, 2000 (two 1-hour lectures).
- AMS Regional Meeting, University of Nevada Las Vegas, April 21-22, 2001.
- Cumberland Conference, University of Memphis, May 17-19, 2001.
- University of Southern Denmark, Odense, Denmark, Jan. 17, 2002.
- Colloquium, Middle Tennessee State University, Jan. 30, 2002.
- University of Memphis, Erdos Lectures, March 2-3, 2002.
- AMS-MAA joint regional meeting, Georgia Tech., March 8, 2002.
- Cumberland Conference, University of Mississippi, May 17-19, 2002.
- S.I.A.M. Discrete Math Meeting, San Diego, August 11-14, 2002.
- S.U.N.Y. Fredonia, Fredonia, N.Y., Colloquium, Oct. 4, 2002.
- Samford University, Birmingham, AL, Colloquium, Oct. 8, 2002.
- Joint M.A.A. and S.I.A.M. regional meeting, Clemson University, March 27-28, 2003 (special session on Graphs and Combinatorics).
- A.M.S. regional meeting, Indiana University, Bloomington, IN, April 4-6, 2003, special session on Graph Theory.
- Cumberland Conference, Georgia State University, May 15-17, 2003.
- Workshop and Conference on Graph Theory, Budapest, Hungary, June 16-27, 2003.
- Colloquium, University of Colorado at Denver, Sept. 30, 2003.
- Principle Lecture, CTC Teaching Retreat, March 20-21, 2004.
- Cumberland Conference, Middle Tennessee State University, May 20-22, 2004.
- SIAM Conference on Discrete Math., Nashville, TN, June 13-16, 2004, Special Session on Cycles in Graphs.
- Graph Theory 2004 - A Conference in memory of Claude Berge, Universite Pierre et Marie Curie, Paris, July 5-9, 2004.
- AMS Regional Meeting, Vanderbilt University, Oct. 16-17, 2004, Special Session on Graph and Matroid Theory.
- Joint Winter meeting of AMS, MAA, SIAM, Special Session on Graphs and Matroids, Atlanta, Jan. 5-8, 2005.
- Seminar, University of Illinois, Urbana, IL, Feb. 15, 2005.
- Principle Lecture: Cumberland Conference, University of Alabama Huntsville, May 12-14, 2005.
- Graph Theory with Altitude Conference, University of Colorado at Denver, May 20-23, 2005.
- Japan Workshop on Graphs and Combinatorics, June 20-25, 2005.
- Seminar, Beijing Institute of Technology, July 2, 2005.

- Principle Lecture: Wuhan International Conference on Graph Structures, Wuhan China, July 4-8, 2005.
- Colloquium, Highpoint University, Sept. 28, 2005.
- Principle Lecture: Clemson Mini-Conference, Oct. 14-15, 2005.
- Colloquium, Western Michigan University, Oct. 28, 2005.
- Cumberland Conference, East Tennessee State University, May 18-20, 2006.
- SIAM Conference on Discrete Math, University of Victoria, June 25-28, 2006.
- Principle Lectur, Japan Workshop on Graphs, Ibaraki University, Hitachi, Japan, August 1-4 2006.
- Principle Lecture, Cycles and Colorings in Graphs Workshop, Tatranska Strba, High Tatras, Slovakia, Sept. 3-8, 2006.
- Colloquium, Clark Atlanta University, Oct. 19, 2006.
- Invited lecture, ACCOTA06, Puerto Vallarta, Mexico, Dec. 3-8, 2006.
- Invited lecture, AMS Regional Conference, Miami of Ohio, Oxford, Ohio, March 16-17, 2007.
- Invited lecture, Graph Theory and Combinatorial Algorithms (GTCA07), Academy of Mathematics, Beijing, China, July 1-3, 2007.
- Colloquium, Three Gorges University, Yichang, China, July 6, 2007.
- Colloquium I, China Central Normal University, Wuhan, China, July 11, 2007.
- Colloquium II, China Central Normal University, Wuhan, China, July 16, 2007.
- AMS Sectional Meeting, Special Session on Graph Theory, Middle Tennessee State University, Nov. 3-4, 2007.
- Special Session in Graph Theory, Joint National Meeting of AMS, MAA, SIAM, San Diego, California, Jan. 5-9, 2008. (Strong Connectivity in Graphs)
- Dinner Lecture, Alabama MAA State Dinner, Feb. 1, 2008. (Teaching a Freshman Seminar or How I gained an International Reputation as a Gambler)
- Special Session in Graph Theory, 32nd SIAM SEAS meeting, Orlando, FL, March 14-15, 2008. (Distributing Vertices on Ham. Cycles)
- Colloquium, Furman University, Furman, SC, April 10, 2008. (Mathematics and Games)
- 21st Cumberland Conference, Vanderbilt University, Nashville, TN, May 14-16, 2008. (Distributing Vertices on Ham. Cycles)
- SIAM Conference on Discrete Math., University of Vermont, Burlington, VT. June 16-19, 2008. (Strong Connectivity in Graphs)
- Joint AMS - Brazilian Math. Society Meeting, Rio de Janeiro, June 4-7, 2008. (Distributing Vertices on Ham. Cycles)
- Graph Theory at Sandbjerg Manor, Sonderborg, Denmark, August 18-23, 2008. (Distributing Vertices on Ham. Cycles)