

CURRICULUM VITAE OF MICHAEL D. PLUMMER

(last updated: May 12, 2011)

(“•” indicates entry new or updated since last revision)

Title:

Professor of Mathematics Emeritus, Department of Mathematics
College of Arts and Sciences, Vanderbilt University, 2008

Education:

B.A., Wabash College, 1959.
M.S., University of Michigan, 1961.
Ph.D., University of Michigan, 1966.

Fields of Specialization:

Graph Theory

Professional Experience:

- Visiting Professor, University of Southern Denmark, Odense, Denmark, April-May, 2011.
- Visiting Professor, National Institute of Informatics, Tokyo, Japan, April, 2009.
Visiting Professor, Department of Mathematics, Otago University, Dunedin, New Zealand, October-November, 2008.
Visiting Professor, Rényi Mathematics Institute, Hungarian Academy of Sciences, Budapest, Hungary, July-August, 2008.
- Visiting Professor, Nihon University, Tokyo, Japan, October 10-24, 2006.
- Visiting Professor, Nankai University, Tianjing, China, September 1-October 9, 2006.
- Visiting Professor, University of Southern Denmark, Odense, Denmark, September 1-December 1, 2003.
- Visiting Professor, Nihon University, Tokyo, Japan, June, 2003.
- Visiting Professor, Silpakorn University, Bangkok, Thailand, May - June, 2003.
- Visiting Professor, University of Otago, Dunedin, New Zealand, June, 2002.
- Visiting Professor, Silpakorn University, Bangkok, Thailand, May, 2002.
- Visiting Professor, Nihon University, Tokyo, Japan, June, 2000.
- Visiting Professor, Silpakorn University, Bangkok, Thailand, May, 2000.
- Visiting Professor, Odense University, Odense, Denmark, July-Aug., 1999.
- Visiting Professor, Odense University, Odense, Denmark, Sept.-Nov., 1998.
- Visiting Professor, University of Zimbabwe, Harare, Zimbabwe, July-Aug., 1998.
- Visiting Professor, University of Natal, Durban, South Africa, July-August, 1997.
- Visiting Professor, University of Otago, Dunedin, New Zealand, July, 1996.
- Visiting Professor, Laboratoire de Recherche en Informatique, University of Paris - Sud, Orsay, France, June, 1995.
- Visiting Professor, University of Otago, Dunedin, New Zealand, March - May, 1994.

Visiting Research Fellow, Curtin University of Technology, Perth, Australia, February, 1994.
 Visiting Research Fellow, Curtin University of Technology, Perth, Australia, July, 1992.
 Visiting Professor, Laboratoire de Recherche en Informatique, University of Paris - Sud, Orsay, France, June, 1990.
 William Evans Visiting Fellow, University of Otago, Dunedin, New Zealand, June - August, 1986.
 Visiting Professor, Mathematics Institute of Hungarian Academy of Sciences, Budapest, August - December, 1983.
 Visiting Professor, Institut für Ökonometrie und Operations Research, Rheinische Friedrich-Wilhelms-Universität Bonn, July, 1980, January 1981 - July 1981.
 Visiting Research Mathematician, Mathematics Institute, Hungarian Academy of Science, Budapest, August, 1980 - December, 1980.
 Visiting Senior Associate, University of Melbourne, June - July, 1979.
 Professor of Mathematics, Vanderbilt University, April 28, 1978 - 2008.
 Visiting Research Mathematician, Mathematics Institute, Hungarian Acad. Sci., Budapest, 1975-76.
 Visiting Research Mathematician, CIMAS, University of Mexico, Mexico City, July 1 - August 1, 1974.
 Associate Professor, Vanderbilt University, 1970-1978.
 Assistant Professor, City College of New York, 1968-1970.
 Instructor, Yale University, 1966-1968.

Professional and Academic Honors:

Niveau Prize, Publishing House of the Hungarian Academy of Sciences, 1991
 (shared with co-author László Lovász for book: *Matching Theory*)
 Foundation Fellow, Institute of Combinatorics and its Applications (Canada), 1990
 American Men and Women of Science, 1990
 Phi Beta Kappa
 Sigma Pi Sigma
 Delta Phi Alpha
 Tau Kappa Alpha
 Pi Delta Epsilon
 Sigma Xi
 • Who's Who in America

Professional Organizations:

Member of Council:
 Institute of Combinatorics and its Applications
 Journal Editorial Boards:
 Thai Journal of Mathematics
 Utilitas Mathematica

Member:

American Mathematical Society
Mathematics Association of America
American Association for the Advancement of Science
SIAM (Society for Industrial and Applied Mathematics)

Referee for:

SIAM Journal of Applied Analysis	Pacific J. Mathematics
American Mathematical Monthly	Israel Journal of Mathematics
Journal of Combinatorial Theory	Aequationes Mathematicae
Discrete Mathematics	J. Graph Theory
Indian Journal of Mathematics	J. Australian Math. Society
Proc. London Mathematical Society	J. Mathematics and Physics (India)
Proc. American Math. Society	Rocky Mountain J. of Mathematics
Canadian Mathematics Bulletin	Annals of Discrete Mathematics
J. Combin. Math. Combin. Comput.	Utilitas Mathematica
John Wiley & Sons (Conference Proc.)	Discrete Applied Mathematics
Ars Combinatoria	Graphs and Combinatorics (Japan)
Periodica Mathematica Hungarica	Australasian J. Combinatorics
Naval Research Logistics	Pi Mu Epsilon Journal
Discussiones Mathematicae (Poland)	Graph Theory Notes of New York

Chairman, Special Session on Graph Theory, Southeastern Meeting, American Mathematical Society, Atlanta, November 1973.

Taught in NSF Summer Institute for Mathematics Teachers in 2-year Colleges, Summer 1973.

Consultant in Mathematics to SCUU Conference, August 1970.

Reviewer for:

Mathematical Review
Zentralblatt für Mathematik

Book Reviewer for:

SIAM Review, **41**, 838-841.
The American Scientist (Sigma Xi Magazine)
OPTIMA (Mathematical Programming Society Newsletter)

Referee for NSF (National Science Foundation)

Referee for NSERC (Natural Sciences and Engineering Research Council of Canada)

Referee for AFOSR (Air Force Office of Scientific Research)

Referee for NSA (National Security Agency)

Referee for NATO (North Atlantic Treaty Organization, Scientific and Environmental Affairs Division)

External Examiner, Laboratoire de Recherche en Informatique, Université de Paris-Sud

External Examiner, University of Otago, Dunedin, New Zealand

External Examiner, University of British Columbia, Vancouver, British Columbia, Canada
 External Examiner, Curtin University, Perth, Australia
 External Examiner, Dalhousie University, Halifax, Nova Scotia, Canada
 Reviewer for Foundation for Research Development (South Africa)
 Reviewer for National Research Council Committee for the Study of Research-Doctorate Programs in the United States
 Referee for International Science Foundation (ISF)
 Organizer for: Eighth Cumberland Conference on Graph Theory, Combinatorics and Computing
 Co-Organizer, Special Session on Combinatorics and Graph Theory, American Mathematical Society and Mexican Mathematical Society joint meeting, Guanajuato, Mexico, November, 1995
 Co-Organizer, *Horizons in Combinatorics*, International Conference on Combinatorics, Graph Theory and Computing (in conjunction with the 16th Shanks Lectures), May, 2001
 Co-Organizer, *Workshop on Graph Factors*, International Conference, Vanderbilt University, December, 2003
 Co-Organizer, Special Session on Graph Theory and Matroid Theory, American Mathematical Society, Nashville, Tennessee, October, 2004

Service at Vanderbilt (Department and University):

Mathematics Department:

Director of Graduate Studies
 Mathematics Department Delegate to Graduate Faculty Assembly
 Committee to Examine Teaching Responsibilities
 Chair's Advisory Council
 Departmental Planning Committee
 Colloquium Chairman
 Committee on Coordination with Computer Science
 Advisor for Mathematics Majors
 Curriculum Committee
 Undergraduate Program Committee
 Committee on Research Development
 Committee on Teaching Assignments
 Publicity Chairman
 Committee on Teaching
 Promotions and Reappointments Advisory Committee
 Engineering Curriculum Committee

University:

Arts & Science Summer Research Fellowships for Graduate Students, Selection Committee
 Faculty Senate
 Chairman, Senate Committee for Business and Non-Academic Affairs

Consultative Committee of Faculty Senate
 University Fringe Benefits Committee
 Investment Options sub-Committee of UFBC
 Committee on Graduate Student Stipends
 Summer School Committee
 Chairman, Graduate School Committee for Evaluation of the Graduate Program
 in Biomedical Engineering.
 Committee on Pencil Project with Hume-Fogg Academic High School
 Freshman Advisor
 Student Recreation Center Committee
 Judge, International Science Fair

Publications:

1. On a family of line-critical graphs. *Monatsch. Math.* **71**, (1967), 40-48.
2. On minimal blocks. *Trans. Amer. Math. Soc.*, **134**, (1968) 85-94.
3. Some covering concepts in graphs. *J. Comb. Theory*, **8**, (1970), 91-98.
4. On path properties versus connectivity I. *Proceedings of Second Louisiana Conference on Graph Theory, Combinatorics, and Computing*, University of Manitoba Press, 1971, 458-472.
5. (with N. Robertson) Path traversability in planar graphs. *Discrete Math.*, **7**, (1974), 289-303.
6. (with L. W. Beineke) On the 1-factors of a non-separable graph. *J. Comb. Theory*, **2**, (1967), 285-289.
7. (with Frank Harary) On the core of a graph. *Proc. London Math. Soc.*, **17**, (1967), 305-314.
8. _____ On the point-core of a graph. *Math. Zeitschr.*, **94**, (1966), 382-386.
9. _____ On indecomposable graphs. *Can. J. Math.*, **19**, (1967), 800-809.
10. (with O. Ore) Cyclic colorations of plane graphs. *Recent Progress in Combinatorics (Proceedings of the Third Waterloo Conference)*, Academic Press, New York, (1969), 287-293.
11. (with E. L. Wilson) On cycles and connectivity in planar graphs. *Canad. Math. Bull.*, **16**, (1973), 283-288.
12. (with L. W. Beineke and F. Harary) On the critical lines of a graph. *Pacific J. Math.*, **22**, (1967), 205-212.
13. (with E. L. Wilson and R. L. Hemminger) A family of path properties for graphs. *Math. Annalen*, **197**, (1972), 107-122.
14. On the (m^+, n^-) connectivity of 3-polytopes. *Proceedings of the Third Southeastern Conference on Graph Theory, Combinatorics, and Computing*, Ed.: F. Hoffman, (1972), 393-408.
15. On the cyclic connectivity of planar graphs. *Graph Theory and Applications (Proc. Conf., Western Michigan Univ., Kalamazoo, Mich., 1972; dedicated to the memory of J.W.T. Youngs)*, Lecture Notes in Math. **303**, Springer, Berlin, 1972, 235-242.
16. Some connectivity problems for graphs. *Proceedings of a Conference on Combinatorics*, Memphis State University, (1972), 156-166.

17. (with L. Lovász) On bicritical graphs. *Proceedings of International Colloquium on Infinite and Finite Sets*, Bolyai Janós Math. Soc., Budapest (1975), 1051-1079.
18. _____ On a family of planar bicritical graphs. *Proc. London Math. Soc.*, **30** (1975), 160-176.
19. _____ On a family of planar bicritical graphs: an abstract. *Proceedings of the British Combinatorial Conference, London Math. Soc. Lecture Notes*, No. 13 (1974), 103-107.
20. (with A. Bondy) Separating cycles in graphs, *Proc. Fifth British Combinatorial Conference*, Congress. Numer. **15**, 1976, 85-90.
21. (with L. Lovász) On minimal elementary bipartite graphs, *J. Comb. Theory (B)*, **23**, (1977), 127-138.
22. (with L. Lovász and V. Neumann-Lara) Mengerian theorems for paths of bounded length, *Periodica Math. Hungarica*, **9**, 1978, 269-276.
23. _____ Mengerian theorems for paths of bounded length, *Problemes Combinatoires et théorie des graphes*, Colloques internationaux du centre national de la recherche scientifique. No. 260, Editions du centre national de la recherche scientifique, Paris, 1978, 333.
24. On n -extendable graphs, *Discrete Math.* **31**, 1980, 201-210.
25. The matching structure of graphs, *Notes from New York Graph Theory Day VI*, Eds.: J. W. Kennedy and L. V. Quintas, New York Acad. Sci., New York, 1980, 10-12.
26. (with D. Holton) Cycles through prescribed and forbidden point sets, *Bonn Workshop on Combinatorial Optimization*, Eds.: A. Bachem, M. Grötschel and B. Korte, Ann. Discrete Math., **16**, 1982, 129-147.
27. (with D. Holton, B. McKay and C. Thomassen) A nine-point theorem for 3-connected graphs, *Combinatorica*, **2**, (1982), 53-62.
28. Some recent results on cycle traversability in graphs, *Convexity and graph theory (Jerusalem, 1981)*, North-Holland Math. Stud. **87**, (1984), 255-262.
29. (with W. R. Pulleyblank) On proximity to paths and cycles in 3-connected graphs, *Ars Combin.*, **14**, (1982), 169-185.
30. (with D. Holton and B. McKay) A Corollary to Perfect's theorem, *Combinatorial Mathematics IX*, Lecture Notes in Mathematics, Vol. 952, Springer-Verlag, Berlin, 1982, 294-299.
31. (with M. Lesk and W. R. Pulleyblank) Equimatchable graphs, *Graph Theory and Combinatorics* (Proceedings of Cambridge Conference in Honor of Paul Erdős), Ed. B. Bollobás, Academic Press, London, 1984, 239-254.
32. A theorem on matchings in the plane, *Graph theory in memory of Gabriel Dirac (Sandbjerg, 1985)* Ann. Discrete Math. **41**, North-Holland, Amsterdam, 1989, 347-354.
33. Matching extension and the genus of a graph. *J. Combin. Theory Ser. B* **44**, (1988), 329-337.
34. Toughness and matching extension in graphs, *Discrete Math.* **72**, 1988, 311-320. (Also reprinted in: Graph Theory and Applications, Eds.: J. Akiyama et al., *Ann. Discrete Math.* **38**, North-Holland Publishing Co., Amsterdam, 1989, 311-320.)
35. Matching extension in bipartite graphs, *Proc. Seventeenth Southeastern Conference*

- on *Combinatorics, Graph Theory and Computing*, Eds.: F. Hoffman, et al., Congr. Numer. LIV, Utilitas Math., Winnipeg, 1986, 245-258.
36. Matching extension and connectivity in graphs, 250th Anniversary Conference on Graph Theory (Fort Wayne, IN, 1986), *Congr. Numer.* **63**, (1988), 147-160.
 37. (with B. Toft) Cyclic coloration of 3-polytopes, *J. Graph Theory*, **11**, (1987), 507-515.
 38. (with L. Lovász) Some recent results in graph matching, *Graph Theory and Its Applications: East and West (Proc. First China-USA Internat. Graph Theory Conf.)*, Eds.: M.F. Capobianco, M. Guan, D.F. Hsu and F. Tian, Ann. New York Acad. Sci., Vol. 576, New York, 1989, 389-398.
 39. (with D. Holton) 2-extendability in 3-polytopes, *Combinatorics (Eger, Hungary, 1987)*, Colloq. Mat. Soc. Janós Bolyai, **52**, Akadémiai Kiadó, Budapest, 1988, 281-300.
 40. (with S. Campbell) On well-covered 3-polytopes, *Ars Combin.*, **25-A**, 1988, 215-242.
 41. (with E. Györi) The Cartesian product of a k -extendable and an l -extendable graph is $(k + l + 1)$ -extendable, *Discrete Math.*, **101**, 1992, 87-96.
 42. (with D. Holton) Matching extension and connectivity in graphs II, *Graph Theory, Combinatorics and Applications, (Proc. Sixth Quadrennial Internat. Conf. on Theory and Applic. of Graphs)*, Eds.: Y. Alavi et al., John Wiley & Sons, New York, 1991, 651-666.
 43. (with D.A. Holton and Dingjun Lou) On the 2-extendability of planar graphs, *Discrete Math.*, **96**, 1991, 81-99. Corrigendum, *Discrete Math.*, **118**, 1993, 295-297.
 44. Claw-free maximal planar graphs, *Proc. Twentieth Southeastern Conference on Combinatorics, Graph Theory and Computing* Eds.: F. Hoffman, et al., Congr. Numer. 72, Utilitas Math., Winnipeg, 1990, 9-23.
 45. Extending matchings in claw-free graphs, *Discrete Math.*, **125**, 1994, 301-307.
 46. Extending matchings in planar graphs IV, *Discrete Math.*, **109**, 1992, 207-219.
 47. Matching extension in regular graphs, Chapter 39 in: *Graph Theory, Combinatorics, Algorithms and Applications (San Francisco, 1989)*, SIAM, Philadelphia, 1991, 416-426.
 48. Degree sums, neighborhood unions and matching extension in graphs, *Contemporary Methods in Graph Theory* Ed.: R. Bodendiek, B.I. Wissenschaftsverlag, Mannheim-/Wien/Zurich, 1990, 489-502.
 49. Extending matchings in graphs: a survey, *Discrete Math.*, **127**, 1994, 277-292.
 50. Matching and vertex packing: How "hard" are they?, *Quo Vadis, Graph Theory?*, Eds.: J. Gimbel, J.W. Kennedy and L.V. Quintas, *Ann. Discrete Math.*, **55**, 1993, 275-312. *reprinted in: The Blundon Lectures 1982 - 1997*, The University of New Brunswick, Canada, 1997, 103.
 51. Matching theory, a sampler: from Dénes König to the present, *Discrete Math.*, **100**, 1992, 177-219.
 52. Well-covered graphs: a survey, *Quaestiones Math.*, **16**, 1993, 253-287.
 53. 2-extendability in two classes of claw-free graphs, *Graph Theory, Combinatorics, and Applications: Proceedings of the Seventh Quadrennial International Conference on the Theory and Applications of Graphs, Volume 2*, Eds.: Y. Alavi and A. Schwenk, John Wiley & Sons, New York, 1995, 905-922.
 54. A note on Hamilton cycles in claw-free graphs, *Cong. Numer.*, **96**, 1993, 113-122.

55. Extending matchings in planar graphs V, *Discrete Math.*, **150**, 1996, 315-324.
56. (with B. Hartnell) On 4-connected claw-free well-covered graphs, *Discrete Appl. Math.*, **64**, 1996, 57-65.
57. (with W.D. Goddard and H.C. Swart) Maximum and minimum toughness of graphs of small genus, *Discrete Math.*, **167/168**, 1997, 329-339.
58. A note on toughness and tough components, *Cong. Numer.*, **125**, 1997, 179-192.
59. Extending matchings in graphs: an update, *Congr. Numer.*, **116**, 1996, 3-32.
60. (with R.E.L. Aldred, D.A. Holton and M.I. Porteous), Two results on matching extensions with prescribed and proscribed edge sets, *Discrete Math.*, **206**, 1999, 35-43.
61. (with O. Favaron and H. Li), Some results on K_r -covered graphs, *Utilitas Math.*, **54**, 1998, 33-44.
62. (with X. Zha), On the connectivity of graphs embedded in surfaces, *J. Combin. Theory Ser. B*, **72**, 1998, 208-228.
63. (with R.E.L. Aldred), On matching extensions with prescribed and proscribed edges II, *Discrete Math.*, **197/198**, 1999, 29-40.
64. (with R.E.L. Aldred), On restricted matching extension in planar graphs, *Discrete Math.*, **231**, 2001, 73-79.
65. (with X. Zha), On the connectivity of graphs embedded in surfaces II, *Electron. J. Combin.*, **9**, #R38, 2002, 1-27.
66. (with A. Saito), Closure and factor-critical graphs, *Discrete Math.*, **215**, 2000, 171-179.
67. (with H. Enomoto and A. Saito), Neighborhood unions and factor critical graphs, *Discrete Math.*, **205**, 1999, 217-220.
68. (with X. Zha), Genus bounds for embeddings with large minimum degree and representativity, *Discrete Math.*, **249**, 2002, 167-178.
69. (with S. Lawrencenko and X. Zha) Bounds for isoperimetric constants of infinite plane graphs (Communication), *Discrete Applied Math.*, **113**, 2001, 237-241.
70. (with S. Lawrencenko and X. Zha) Isoperimetric constants of infinite plane graphs, *Discrete Comput. Geom.*, **28**, 2002, 313-330.
71. (with K. Kawarabayashi and A. Saito), On two equimatchable graph classes, *Discrete Math.*, **266**, 2003, 263-274.
72. (with E. Györi), A nine-vertex theorem for 3-connected claw-free graphs, *Stud. Scient. Math. Hungar.*, **38**, 2001, 233-244.
73. (with M. Stiebitz and B. Toft), On a special case of Hadwiger's conjecture, *Discuss. Math.*, **23**, 2003, 333-364.
74. (with N. Ananchuen), Some results related to the toughness of 3-domination-critical graphs, *Discrete Math.*, **272**, 2003, 5-15. (Erratum: **306**, 2006, 292.)
75. (with N. Ananchuen), Matching properties in domination-critical graphs, *Discrete Math.*, **277**, 2004, 1-13. (Erratum: **306**, 2006, 291.)
76. (with A. Finbow, B. Hartnell and R. Nowakowski), On well-covered triangulations. I, *Discrete Appl. Math.*, **132**, 2004, 97-108.
77. (with Xiaoya Zha), On the p -factor-criticality of the Klein bottle, *Discrete Math.*, **287**, 2004, 171-175.
78. (with A. Saito), Forbidden subgraphs and bounds on the size of a maximum matching, *J. Graph Theory*, **50**, 2005, 1-12.

79. (with N. Ananchuen), 3-factor-criticality in domination critical graphs, 2005, *Discrete Math.*, **307**, 2007, 3006-3015.
80. (with R.E.L. Aldred), Edge proximity and matching extension in planar triangulations, *Australas. J. Combin.*, **29**, 2004, 215-224.
81. (with S. Fujita, K. Kawarabayashi, C. Lucchesi, K. Ota and A. Saito), A pair of forbidden subgraphs and perfect matchings, *J. Combin. Theory Ser. B*, **96**, 2006, 315-324.
82. (with N. Ananchuen), Some results related to the toughness of 3-domination-critical graphs II., *Utilitas Math.*, **70**, 2006, 11-32.
83. (with N. Ananchuen), Matching in 3-vertex-critical graphs: the even case, *Networks*, **45**, 2005, 210-213.
84. (with N. Ananchuen), Matching in 3-vertex-critical graphs: the odd case, *Discrete Math.*, **307**, 2007, 1651-1658.
85. (with M. Stiebitz and B. Toft), Improvements of the theorem of Duchet and Meyniel on Hadwiger's conjecture, *J. Combin. Theory Ser. B*, **95**, 2005, 152-167.
86. (with K. Kawarabayashi and A. Saito), Domination in a graph with a 2-factor, *J. Graph Theory*, **52**, 2006, 1-6.
87. (with M. Henning), Vertices contained in all or in no minimum paired-dominating set of a tree, *J. Comb. Optim.*, **10**, 2005, 283-294.
88. • (with A. Finbow, B. Hartnell and R. Nowakowski), Well-covered planar triangulations II, *Discrete Appl. Math.*, **157**, 2009, 2799-2817.
89. • (with A. Finbow, B. Hartnell and R. Nowakowski), Well-covered planar triangulations III, *Discrete Appl. Math.*, **158**, 2010, 894-912.
90. Graph factors and factorization 1985-2003: A survey, *Discrete Math.*, **307**, 2007, 791-821.
91. (with N. Ananchuen), On the connectivity and matchings in 3-vertex-critical claw-free graphs, *Utilitas Math.*, **69**, 2006, 85-96.
92. (with P. Dankelmann, W. Goddard, H. Swart and P. van den Berg), Minimal claw-free graphs, *Czechoslovak Math. J.*, **58**, 2008, 787-798.
93. (with R. Aldred and K. Kawarabayashi), On the matching extendability of graphs in surfaces, *J. Combin. Theory Ser. B*, **98**, 2008, 105-115.
94. (with N. Ananchuen and W. Ananchuen), Matching properties in connected domination critical graphs, *Discrete Math.*, **308**, 2008, 1260-1267.
95. Some recent results on domination in graphs, *Discussiones Math. Graph Theory*, **26**, 2006, 457-474.
96. Some recent results on domination in graphs (An extended abstract), *Discrete Mathematics, Proc. Internat. Conf. on Discr. Math. (ICDM 2006)*, Ramanujan Mathematical Society Lecture Notes Series No. 7, International Press, Boston, USA, 2008, 55-61.
97. (with R.E.L. Aldred) Restricted matching extension in graphs of small genus, *Discrete Math.*, **308**, 2008, 5907-5921.
98. • (with X. Zha) On certain spanning subgraphs of embeddings with applications to domination, *Discrete Math.*, **309**, 2009, 4784-4792.

- 99. • (with K. Kawarabayashi) Bounding the size of equimatchable graphs of fixed genus, *Graphs Combin.*, **25**, 2009, 91-99.
- 100. • (with A. Ananchuen and W. Ananchuen) Vertex criticality for connected domination, *Util. Math.* 2009, (to appear).
- 101. • (with A. Ananchuen and W. Ananchuen) Connected domination: vertex criticality and matchings, *Utilitas Math.* 2010 (to appear).
- 102. • (with J. Fujisawa, J. Fujita, A. Saito and I. Schiermeyer) A pair of forbidden subgraphs and perfect matchings in graphs of high connectivity, *Combinatorica*, 2010, accepted for publication.
- 103. • (with M. Ellingham and G. Yu) Linkage for the diamond and the path with four vertices, *J. Graph Theory*, 2011, (to appear).
- 104. • (with D. Nelson, N. Robertson and X. Zha) On a conjecture concerning the Petersen graph, *Electron. J. Combin.* **18**(1) (2011) P20.
- 105. • (with Q. Yu and T. Wang) Cyclic connectivity and matching extension in regular graphs, (submitted).
- 106. On the structure of graphs vertex critical with respect to connected domination, Chapter 14 in: *Research Trends in Combinatorial Optimization*, Ed.: W.J. Cook, L. Lovász and J. Vygen, Springer, Berlin, 2008, 303-315.
- 107. Recent progress in matching extension, *Building Bridges between Mathematics and Computer Science*, Eds.: M. Grötschel and G.O.H. Katona, Bolyai Soc. Math. Stud. Vol. 19, Springer, Berlin, 2008, 427-454.
- 108. • (with K. Kawarabayashi, S. Negami and Y. Suzuki) The 2-extendability of 5-connected graphs on surfaces with large representativity, *J. Combin. Theory Ser. B*, **101**, 2011, 206-213.
- 109. • (with K. Kawarabayashi) Traversing specified vertices in graphs embedded with large representativity, *Discrete Math.* **310**, 2010, 2655-2661.
- 110. • (with E. Györi) Cyclability in 3-connected graphs, (in progress).
- 111. • (with R.E.L. Aldred) Distance-restricted matching extension in planar triangulations, *Discrete Math.*, **310**, 2010, 2618-2636.
- 112. • (with K. Ota and A. Saito) Forbidden triples for perfect matchings, *J. Graph Theory*, 2010, (to appear).
- 113. • (with R.E.L. Aldred) Proximity thresholds for matching extension in planar and projective planar triangulations, *J. Graph Theory*, 2010, (to appear).
- 114. • (with R.E.L. Aldred) Graphs with the Cycle Extension Property, 2010, (submitted).
- 115. • (with R.E.L. Aldred) Proximity Thresholds for matching extension II: the torus and Klein bottle, (submitted).

Book: (with László Lovász) “Matching Theory”, Akadémiai Kiadó Budapest, and *Annals of Discrete Mathematics*, Vol. 29 North-Holland Publishing Co., Amsterdam, 1986, (544 + xxxviii pgs).

(translated and published in Russian as:) “Applied Problems of Graph Theory, Matching Theory in Mathematics, Physics and Chemistry”, MIR, Moscow, 1999.

- Revised Edition, American Mathematical Society Chelsea Publishing, 2009.

Chapter of Book: Graph Factors and Factorizations, *Handbook on Graph Theory*, Eds.: J. Gross and R. Yellen, CRC Press, New York, 2003, 403-430.

• **Chapter of Book:** (with N. Ananchuen and W. Ananchuen) Domination in Graphs, *Structural Analysis of Complex Networks: Theory and Applications*, Birkhauser, New York, 2010, 73-104.

Papers delivered at conferences:

1. Second Ann Arbor Graph Theory Conference, Ann Arbor, Michigan, February , 1968.
2. Yale Conference on Combinatorics (in honor of Oystein Ore), May, 1968.
3. Third Waterloo Conference on Combinatorics, Waterloo, Ontario, Canada, May 1968.
4. Second Louisiana Conference on Combinatorics, Graph Theory, and Computing, Baton Rouge, Louisiana, March, 1971.
5. Third Southeastern Conference on Combinatorics, Graph Theory, and Computing, Boca Raton, Florida, March 1972.
6. Western Michigan Conference on Graph Theory, Kalamazoo, May 1972.
7. (invited hour talk) Memphis State University Conference on Combinatorics, August 1972.
8. British Combinatorial Conference, Aberystwyth, Wales, July 1973.
9. International Colloquium on Infinite and Finite Sets, Keszthely, Hungary, June 1973.
10. Conference on optimum matching and polyhedral combinatorics, Johns Hopkins Univ., June 1975.
11. Conference on Combinatorics, CNRS, Paris, France, (University of Orsay), July 1976.
12. Bonn Conference on Optimization, Bonn, Germany, August, 1980.
13. Conference on Convexity and Graph Theory, Haifa, Israel (University of Haifa, Ben-Gurion University of the Negev) March 1981.
14. Thirteenth Southeastern Conference on Combinatorics, Graph Theory and Computing, Boca Raton, Florida, March, 1982.
15. Cycles in Graphs 1982, Simon Fraser University, Vancouver, B.C., Canada, July, 1982.
16. Conference in honor of Paul Erdős, Cambridge University, Cambridge, England, March, 1983.
17. Conference in memory of Gabriel Dirac, Sandbjerg Castle, Denmark, June, 1985.
18. Seventeenth Southeastern Conference on Combinatorics, Graph Theory and Computing, Boca Raton, Florida, February 1986.
19. The 250th Anniversary Conference on Graph Theory, Ft. Wayne, March, 1986.
20. First Japan Conference on Graph Theory and Applications, Hakone, Japan, June, 1986.
21. First China - USA International Conference on Graph Theory and its Applications, Jinan, China, June, 1986.
22. Seventh Hungarian Colloquium on Combinatorics, Finite and Infinite Sets, Eger, Hungary, July, 1987.
23. Eleventh British Combinatorial Conference, London, England, July, 1987.
24. Sixth International Conference on the Theory and Applications of Graphs, Kalamazoo, Michigan, June, 1988.

25. Twentieth Southeastern Conference on Combinatorics, Graph Theory, and Computing, Boca Raton, Florida, February, 1989.
26. International Conference on Algebraic Graph Theory, Seggau, Austria, June, 1989.
27. Second China – USA International Conference on Graph Theory, Combinatorics, Algorithms and Applications, San Francisco, California, July, 1989.
28. Julius Petersen Graph Theory Conference, Hindsgev1, Denmark, July, 1990 (plenary address).
29. Second Japan Conference on Graph Theory and Applications, Hakone, Japan, August, 1990 (plenary address).
30. Thirteenth British Combinatorial Conference, Guildford, England, July, 1991.
31. 255th Anniversary Conference on Graph Theory, University of Natal, Durban, South Africa, July, 1991 (plenary address).
32. Seventh International Conference on Theory and Applications of Graphs, Kalamazoo, Michigan, June, 1992.
33. Eighteenth Australasian Conference on Combinatorial Mathematics and Combinatorial Computing, University of Western Australia, Perth, Australia, July, 1992.
34. Twenty-fourth Southeastern International Conference on Combinatorics, Graph Theory and Computing, Boca Raton, Florida, February, 1993.
35. International Conference on Combinatorics, Keszthely, Hungary, July, 1993.
36. Fifteenth British Combinatorial Conference, University of Stirling, Stirling, Scotland, July, 1995.
37. International Conference on Discrete Mathematics and Number Theory, Ramanujan Mathematical Society, Tiruchirapalli, India, January, 1996.
38. Eighth Quadrennial International Conference on Graph Theory, Combinatorics, Algorithms, and Applications, Western Michigan University, Kalamazoo, Michigan, June, 1996.
39. Twenty-eighth Southeastern International Conference on Combinatorics, Graph Theory and Computing, Boca Raton, Florida, March, 1997.
40. Sixteenth British Combinatorial Conference, Queen Mary College, London, England, June, 1997
41. Conference in Honor of 50th Birthday of László Lovász, Hungarian Academy of Sciences, Budapest, Hungary, March, 1998.
42. Twelfth Cumberland Combinatorial Conference, University of Louisville, Louisville, Kentucky, May, 1999.
43. Seventeenth British Combinatorial Conference, Canterbury University, Canterbury, England, July, 1999.
44. First Annual INTAS Conference on Graph Theory, Novosibirsk, Russia, August, 1999.
45. South African Graph Theory Conference, Itala, South Africa, June 18-22, 2001.
46. Eighteenth British Combinatorial Conference, Canterbury University, Brighton, England, July 1-6, 2001.
47. Recent Trends in Graph Theory, Algebraic Combinatorics, and Graph Algorithms, Bled, Slovenia, September 24-27, 2001.
48. Nineteenth British Combinatorial Conference, University of Wales, Bangor, Wales, UK, June 29-July 4, 2003.

49. Graph Theory Day 2003, Univ. of Southern Denmark, Odense, Denmark, September, 2003.
50. Graph Theory 2003, Nyborg, Denmark, November 27-30, 2003.
51. Conference in memory of Claude Berge, Université de Paris, Paris, France, July, 2004.
52. Twentieth British Combinatorial Conference, University of Durham, Durham, UK, July 10-July 15, 2005.
53. Twenty-first British Combinatorial Conference, Reading University, Reading, UK, July 8-13, 2007.
54. • Twenty-second Cumberland Conference on Combinatorics, Graph Theory and Computing, Western Kentucky University, Bowling Green, KY, USA, May 21-23, 2009.
55. • *Journée Graphs*, University of Paris - Sud, Orsay, France, June, 2009.
56. • Twenty-second British Combinatorial Conference, St. Andrews University, St. Andrews, Scotland, July 5-10, 2009.

Invited Guest Lectures:

1. Michigan State University, 1966
2. University of Michigan, 1967
3. Bell Laboratories, Murray Hill, 1968
4. University of Connecticut, 1968
5. City College of New York, 1968
6. SUNY, Binghamton, 1970
7. University of Arizona, 1970
8. Memphis State University, 1972
9. Mathematical Association of America (Ohio Section), 1974
10. Mathematics Institute, Hungarian Academy of Science, Budapest, 1975
11. University of Odense, Odense, Denmark, 1976
12. University of Ilmenau, Ilmenau, East Germany, 1976
13. University of the South, Sewanee, 1978
14. University of Calgary, Alberta, Canada, 1978
15. University of Oklahoma, 1979
16. University of Melbourne, Australia, 1979
17. Australian National University (Canberra), Australia, 1979
18. University of Newcastle, Australia, 1979
19. University of Sydney, Australia, 1979
20. University of Tasmania, Australia, 1979
21. Deakin University, Australia, 1979
22. American Mathematical Society Special Session (Kent State University), 1979
23. University of Szeged, Szeged, Hungary, 1980
24. Institute for Computer Science, Polish Academy of Science, Warsaw, Poland, 9/1980
25. Institute for Computer Science, University of Wroclaw, Wroclaw, Poland, 9/1980
26. Mathematics Institute Czechoslovak Academy of Sciences, Prague, Czechoslovakia, 10/1980
27. Mathematical Institute of Hungarian Academy of Sciences, Budapest, 11/1980.
28. American Mathematical Society Special Session (San Francisco), 1/1981

29. Institut für angewandte Mathematik, Montanuniversität, Leoben, Austria, 1/1981
30. Erasmus University, Rotterdam, The Netherlands, 4/1981
31. Mathematical Centrum, Amsterdam, The Netherlands, 4/1981
32. Institut für Ökonometrie und Operations Research, University of Bonn, Germany, 4/1981
33. Fachbereich Mathematik, Technische Universität, Berlin, Germany, 5/1981
34. Frei Universität Berlin, West Berlin, 1981
35. Mathematisches Institut, University of Hannover, Germany, 5/1981
36. Matematisk Institut, University of Aarhus, Denmark, 5/1981
37. Cambridge University, Cambridge, England, 7/1981
38. New York Academy of Sciences, New York, New York, 5/1983
39. Technische Hochschule Ilmenau, Ilmenau, East Germany, 11/1983
40. Pädagogische Hochschule Dresden, Dresden, East Germany, 11/1983
41. American Mathematical Society Special Session (University of South Alabama at Mobile), 5/1985
42. University of Otago, Dunedin, New Zealand, 8/1986
43. University of Auckland, Auckland, New Zealand, 8/1986
44. University of British Columbia, Vancouver, Canada, 5/1987
45. American Mathematical Society Special Session, (Pacific Lutheran University), 6/1987
46. Mathematics Symposium, Western Kentucky University, 10/1987
47. American Mathematical Society Special Session, (Atlanta, Georgia), 1/1988
48. University of Michigan, 1/1988
49. St. Mary's University, Halifax, Nova Scotia, 3/1988
50. Dalhousie University, Halifax, Nova Scotia, 3/1988
51. Montanuniversität Leoben, Leoben, Austria, 6/1988
52. Graph Theory Week at Oberwolfach, Mathematisches Forschungsinstitut, Oberwolfach, West Germany, June, 1988
53. The Third Clemson ONR Conference on Discrete Mathematics, Clemson University, 10/88
54. Second Cumberland Conference on Applications of Graph Theory to Computer Science, Memphis State University, 5/89
55. American Mathematical Society Special Session, (Fayetteville, Arkansas), 3/1990
56. Graph Theory Week at Oberwolfach, Mathematisches Forschungsinstitut, Oberwolfach, West Germany, June, 1990
57. Laboratoire de Recherche en Informatique, Univ. Paris-Sud, Orsay, France, June, 1990 (3 talks)
58. Université Pierre et Marie Curie, Paris, France, June, 1990
59. Mathematics Institute of Czechoslovak Academy of Sciences, Prague, Czechoslovakia, July, 1990
60. Plenary Speaker, Twentieth Conference on Numerical Mathematics and Computing, Winnipeg, Manitoba, Canada, September, 1990
61. Georgia Institute of Technology, March, 1991
62. Operations Research Society of America, Nashville, May, 1991

63. Blundon Lecture, 15th Annual Atlantic Mathematics Days 1991, Atlantic Provinces Council on the Sciences, Halifax, Nova Scotia, Canada, October, 1991
64. Principal Speaker, Applied Mathematics Meeting, Combined University of Alabama System, Huntsville, November, 1991
65. Northwestern University, April, 1992
66. Twenty-first Ohio State—Denison Mathematics Conference, Denison University, May, 1992
67. Curtin University of Technology, Perth, Australia, July, 1992 (2 lectures)
68. Sixth Cumberland Conference on Graph Theory and Computing, Rhodes College, Memphis, May, 1993
69. Montanuniversität Leoben, Leoben, Austria, July, 1993
70. Technische Universität Berlin, Berlin, Germany, July, 1993
71. Curtin University of Technology, Perth, Australia, February, 1994
72. University of Queensland, Brisbane, Australia, March, 1994
73. Otago University, Dunedin, New Zealand, April, 1994 (2 lectures)
74. Principal Speaker, Seventh Cumberland Conference on Graph Theory and Computing, University of Alabama at Huntsville, Huntsville, Alabama, May, 1994
75. American Mathematical Society Special Session, San Francisco, January, 1995
76. Centre de Recherché, Université de Paris-Sud, Orsay, France, June, 1995
77. Goldsmith College (University of London), London, England, January, 1996
78. University of Louisville, Louisville, Kentucky, March, 1996
79. Ninth Cumberland Combinatorial Conference, University of Mississippi, Oxford, Mississippi, May, 1996
80. Massey University, Palmerston North, New Zealand, June, 1996
81. University of Otago, Dunedin, New Zealand, June, 1996
82. American Mathematical Society Special Session: Graph Theory, The University of Memphis, Memphis, Tennessee, March 21-22, 1997
83. Tenth Cumberland Combinatorial Conference, Emory University, Atlanta, Georgia, May, 1997
84. Rand Afrikaans University, Johannesburg, South Africa, July, 1997
85. University of Natal, Durban, South Africa, August, 1997
86. University of Zimbabwe, Harare, Zimbabwe, August, 1997
87. American Mathematical Society Special Session: Graph Theory, The University of Louisville, Louisville, Kentucky, March 20-21, 1998
88. Eleventh Cumberland Combinatorial Conference, East Tennessee State University, Johnson City, Tennessee, May, 1998
89. University of Zimbabwe, Harare, Zimbabwe, August, 1998
90. Main Invited Lecturer, Workshop on Graph Colorings, Stara Lesna, Slovakia, Sept. 1998
91. Technische Universität, Berlin, Germany, October, 1998
92. C.N.R.S., Grenoble, France, October, 1998
93. Dept. of Mathematics, Odense University, Odense, Denmark, October, 1998
94. Dept. of Computer Science, Odense University, Odense, Denmark, October, 1998
95. Aalborg University, Aalborg, Denmark, November, 1998

96. Dept. of Computer Science, Yale University, New Haven, Connecticut, April, 1999
97. Twelfth Cumberland Combinatorial Conference, University of Louisville, Louisville, Kentucky, May, 1999
98. The Fourteenth Mini-Conference on Discrete Mathematics (sponsored by NSA), Clemson University, Clemson, South Carolina, September, 1999
99. St. Marys University, Halifax, Nova Scotia, Canada, October, 1999
100. American Mathematical Society Special Session: Graph Theory, The University of Louisiana at Lafayette, Louisiana, April 14-16, 2000
101. Hong Kong University of Science and Technology, May, 2000
102. University of Science and Engineering, Tokyo, Japan, June, 2000
103. American Mathematical Society Special Session: Graph Theory, The University of Nevada, Las Vegas, Nevada, April 21-22, 2001
104. Conference on Graph Theory (in honor of the 60th Birthday of Wilfried Imrich), Bled, Slovenia, September, 2001
105. American Mathematical Society Special Session: Graph Theory, The University of Tennessee at Chattanooga, October 5-6, 2001
106. American Mathematical Society Special Session: Graph Theory, Georgia Institute of Technology, Atlanta, Georgia, March, 2002
107. Keynote Speaker, Annual Conference on Mathematics and its Applications, Center for Promotion of Mathematical Research of Thailand and the Mathematical Society of Thailand, Prince of Songkla University, Songkla, Thailand, May 13-14, 2002
108. University of Otago, Dunedin, New Zealand, June, 2002
109. University of Auckland, Auckland, New Zealand, June, 2002
110. American Mathematical Society Special Session: Graph Theory, University of Central Florida, Orlando, Florida, November, 2002
111. American Mathematical Society Special Session: Graph Theory, Louisiana State University, Baton Rouge, Louisiana, March, 2003
112. All-Tokyo University Graph Seminar, Nihon University, June, 2003.
113. Zentrum für Informationstechnik (ZIB), Berlin, Germany, August, 2003.
114. Plenary Talk, Cycles and Colourings '03, A Workshop, Stara Lesna, Slovakia, August 31 - September 5, 2003.
115. Plenary Talk, Advances in Graph and Matroid Theory, Ohio State University, Columbus, Ohio, December 13-16, 2003.
116. St. Mary's University, Halifax, Nova Scotia, January, 2004.
117. Conference in Honor of Pál Erdős, The University of Memphis, Memphis, Tennessee, March 24, 2004.
118. Seventeenth Cumberland Combinatorial Conference, Middle Tennessee State University, Murfreesboro, Tennessee, May, 2004.
119. Thirty-ninth Midwest Graph Theory Conference, Ball State University, Muncie, Indiana, November, 2004
120. Eastern Kentucky University, February, 2005.
121. American Mathematical Society Special Session: Graph Theory, Western Kentucky University, Bowling Green, Kentucky, March, 2005

122. American Mathematical Society Special Session: Graph Theory, Texas Tech University, Lubbock, Texas, April, 2005
123. Invited Plenary Speaker, The Eleventh Workshop on Graph Theory: Colouring, Independence and Domination (CID), Karpacz, Poland, September 18-September 23, 2005.
124. University of Illinois, Urbana, Illinois, February 7, 2006.
125. Xinjiang University, Urumchi, China, September, 2006.
126. Shanghai Jiaotong University, Shanghai, China, September, 2006.
127. Nankai University, Tianjin, China, September-October, 2006.
128. Tokyo University of Science, October, 2006.
129. Keio University, Yokohama, Japan, October, 2006.
130. Invited Plenary Speaker, International Conference on Discrete Mathematics (ICDM), Ramanujan Mathematical Society and Indian Institute of Science, Bangalore, India, Dec. 15-18, 2006.
131. American Mathematical Society Special Session: Graph Theory, Miami University, Oxford, Ohio, March, 2007.
132. Invited Plenary Speaker, East Coast Combinatorial Conference, Mount Allison University, Sackville, New Brunswick, Canada, April, 2007.
133. Eleventh C5 Graph Theory Workshop “Cycles, colorings, cliques, claws and closures”, Kurort Rathen, Germany, May, 2007.
134. American Mathematical Society Special Session: Graph Theory, Middle Tennessee State University, Murfreesboro, Tennessee, November, 2007.
135. SIAM Special Session: Graph Theory, The University of Central Florida, Orlando, Florida, March 14-15, 2008
136. Invited Plenary Speaker, Building Bridges: A Conference on Mathematics and Computer Science in Honor of 60th Birthday of László Lovász, Hungarian Academy of Sciences, Budapest, Hungary, August, 2008
137. Invited Plenary Speaker, Graph Theory at Sandbjerg Manor, Sandbjerg, Denmark, August, 2008
138. Department of Mathematics, University of Otago, Dunedin, New Zealand, October, 2008.
139. • Invited Plenary Speaker, Third International Conference on Combinatorics, Graph Theory and Applications, Elgersburg, Germany, March 23-27, 2009.
140. • Department of Mathematics, Middle Tennessee State University, March, 2009.
141. • All-Tokyo Graph Theory Seminar, Tokyo University of Science, Tokyo, Japan, April, 2009.
142. • Keynote Speaker, Special Session on Graph Theory, Atlantic Provinces Council on the Sciences, St. Marys University, Halifax, Nova Scotia, Canada, October, 2010
143. • Invited Speaker, Kyoto Prize Conference, Tokyo, Japan, November, 2010.
144. • Invited Speaker, Kolding Graph Theory Conference, Kolding, Denmark, April, 2011.

Ph.D. Dissertations Supervised:

Donald Arthur Nelson: “The Structure of Critically 2- and 3-connected Graphs,” August, 1974.

Jo Ann Wade Staples: “On Some Subclasses of Well-covered Graphs,” August, 1975.
Stephen Campbell: “Some Results on Cubic Well-covered Graphs”, May, 1987.
Michael R. Pinter: “ W_2 Graphs and Strongly Well-covered Graphs: Two Well-covered Graph Subclasses,” June, 1991.
Lisa R. Markus: “Degree, neighbourhood and claw conditions versus traversability in graphs”, June, 1992.
Erika Cox King: “Characterizing and comparing some classes of well-dominated and well-covered graphs”, May, 2003

M.S. Dissertations Supervised:

Andre George: “On Line-Critical Graphs”, Vanderbilt University, August 1971.
Donald A. Nelson: “Hamiltonian Graphs”, Vanderbilt University, May 1973.
Carolyn Gailey: “One-factors in Graphs”, Vanderbilt University, May 1974.

Courses Taught at Vanderbilt:

1. Calculus M170
2. Calculus (1st Semester) M171a
3. Calculus (2nd Semester) M172b
4. Calculus (3rd Semester) M222
5. Linear Algebra M230 (old number M205)
6. Graph Theory M275A (old number 273)
7. Combinatorics M280
8. Combinatorics M350
9. Seminar in Packings and Coverings M375A
10. Seminars in Graph Theory M373/374
11. Introduction to Discrete Structures SIS212 (old number SIS202) (Computer Science Department Course)
12. Discrete Mathematics in Computing M213
13. Linear Programming M267
14. Natural Science 101

Additional courses taught at other Universities include:

15. Automata Theory
16. Abstract Algebra
17. Differential Equations
18. Assorted calculus and analytic geometry courses.