

List of Selected Publications

Dr. Cun-Quan “CQ” Zhang

(updated on 9/23/2008)

Book

1. Integer Flows and Cycle Covers of Graphs, (a reference book and graduate level textbook), *Marcel Dekker Inc. New York.*, (1997) ISBN: 0-8247-9790-6 (379 pages). MR. 98a:05002

Patent

1. Method for data clustering and classification by a graph theory model – network partition into high density subgraphs, (with Y. B. Ou) *US patent*, Pending (2006) # 11/416,766 (provisional (2005) # 60/677,655).

Research articles

98. Cycle covers (I) – minimal contra pairs and Hamilton weights *J. Comb. Theory, B.* (submitted)

97. A Characterization of Almost CIS Graphs (with Y. Wu, W. Zang) *SIAM Discrete Math.* (submitted)

93. Flows and parity subgraphs of graphs with large odd edge connectivity, (with J. Shu, X. Wang and T. Zhang) *J. Comb. Theory B.* (submitted)

90. Realizing Degree Sequences with Graphs having Nowhere-zero 3-Flows (with R. Lou, R. Xu and W. Zang) *SIAM Discrete Math.*, Vol. 22, No. 2, pp. 500-519

88. Nowhere-zero 4-flow in almost Petersen-minor free graphs, (with X. F. Wang, T. Y. Zhang) *Discrete Math.*, (2007) doi:10.1016/j.disc.2007.11.055

87. Clustering, community partition and disjoint spanning trees, (with Y. B. Ou) *ACM Transactions on Algorithms*, Vol. 4, No. 3, Article 35.

84. Chords of longest circuits in locally planar graphs (with K. Kawarabayashi and J. Niu) *European J. Combinatorics*, 28 (2007) 315 – 321

81. On flows of bidirected graphs (with R. Xu) *Discrete Math.* 299 (2005) P. 335-343

80. Nowhere-zero 3-flows in triangularly connected graphs , (with G. H. Fan, H. J. Lai, R. Xu, C. X. Zhou) *JCTB.* (98 (2008) 13251336

79. Nowhere-zero 3-flows in products of graphs, (with J. L. Shu) *J. Graph Theory* 50 (2005) P. 79-89

77. Note on circular flows of graphs (with Hong-Jian Lai, Rui Xu) *Combinatorica* 27 (2) (2007) p.245-246

74. On structures of k -connected graphs without K_k -minor (with K. Kawarabayashi, Luo, Niu) *European Journal of Combinatorics*, 26 (2005) P. 293-308

71. Nowhere-zero 4-flows, simultaneous edge-colorings, and critical partial Latin squares, (with R. Luo, W. Zang), *Combinatorica*, 24 (4) (2004) p.641 - -657

70. Chords of Longest Circuits of Graphs Embedded in Torus and Klein Bottle, (with X. Li), *J. Graph Theory*, Vol. 43 (2003) p. 1-23.

69. Edge-face chromatic number and edge chromatic number, (with R. Luo), *J. Graph Theory* 49: 234-256, 2005

67. Circular flows of nearly eulerian graphs and vertex-splitting, *J. Graph Theory.* 40, (2002) p. 147-161

66. Chords of longest circuits of 3-connected graphs, (with X. Li), *Discrete Mathematics.* Vol. 268 (2003), pp.199-206

63. $(2 + \epsilon)$ -coloring of planar graphs with large odd girth, (with Klostermeyer) *J. Graph Theory* 33 (2000), no. 2, 109–119.

60. Hamilton weight and Petersen minor, (with H. J. Lai) *J. Graph Theory*, 38 (2001) p. 197-219. MR. 2002g:05120
59. Triangle-free circuit decompositions and Petersen-minor, (with K. Heinrich and J.-P. Liu) *J. Combinatorial Theory, B.*, Vol. 72 (1998) p. 197-207 MR. 99g:05123
55. A Note on the Connectivity of Acyclic Orientation Graphs, (with C. Savage) *Discrete Mathematics* 184 (1998) p 281-287 MR. 98m:05117
51. Nowhere-zero 4-flows and cycle double covers, *Discrete Mathematics*, 154 (1996) pp. 245-253. MR. 97c:05121
50. Hamiltonian weights and unique 3-edge-colorings of cubic graphs, *Journal of Graph Theory*, Vol. 20, No. 1 (1995) p. 91-99 MR. 96e:05109
47. Nowhere-zero 4-flows of solvable Cayley graphs, (with B. Alspach and Y. Liu), *SIAM Discrete Math.*, Vol. 9, No. 1 (1996) pp 151-154. MR. 96m:05100
46. On (k, d) -Colorings and Fractional Nowhere Zero Flows, (with Goddyn, Tarsi), *J. Graph Theory*, 28 (1998) 155-161 MR. 99c:05063
44. On embeddings of graphs containing no K_5 -minor, *J. Graph Theory*, Vol. 21, No. 4, (1996) 401-404. MR. 96i:05057
42. Parity subgraph, shortest cycle cover and postman tour, *SIAM J. Discrete Math.*, Vol. 6, No. 3, (1993) 428-431, MR. 94e:05167.
40. On even circuit decompositions of eulerian graphs, *J. Graph Theory*, 18, No. 1 (1994) 51-57. MR. 95e:05080
39. Circuit Decompositions of Eulerian Graphs (with G. Fan) *J. Combinatorial Theory, B.*, 78 (2000) p. 1-23 MR. 2001k:05129
38. Small circuit double covering of cubic graphs, (with H-J. Lai and X. Yu), *Journal of Combinatorial Theory, B.*, Vol. 60, No. 2, (1994) 177-194. MR. 95b:05122.
35. Graphs with the circuit cover property, (with B. Alspach, L. Goddyn), *Transaction of the American Mathematics Society*, Vol. 344, No. 1, (1994) p131-154. MR. 94j:05073.
33. Nowhere-zero 3-flows of highly connected graphs, (with H. J. Lai), *Discrete Mathematics*, 110 (1992) p179-183, MR. 93m:05105.
32. Minimum cycle coverings and integer flows, *J. Graph Theory*, Vol. 14, No. 5, (1990) 537-546, MR. 91j:05067.
30. Cycle covers of cubic multigraphs, (with B. Alspach), *Discrete Mathematics*, 111, (1993) 11-17, MR. 94b:05142.
28. Factorizations of regular graphs, (with Y. Zhu) *J. Combinatorial Theory, B.*, Vol. 56, No. 1 (1992) 74-89, MR. 93h:05129.
27. Finding critical independent sets and critical vertex subsets are polynomial problems, *SIAM J. Discrete Math.*, Vol. 3, No. 3 (1990) 431-438, MR. 91f:68172.
26. Circumference and girth, *J. Graph Theory*, Vol. 13, No. 4, (1989) 485-490, MR. 90h:05075.
20. Hamilton cycles in claw-free graphs, *J. Graph Theory*, Vol. 12, No. 2, (1988) 209-216, MR. 89k:05065.
19. Longest cycles and their chords, *J. Graph Theory*, Vol. 11, No. 4 (1987) 521-529, MR. 89d:05119.
11. A class of hypergraphs satisfying an inequality of Lovász, (with W. Li), *J. Combinatorial Theory, B*, Vol. 34, No. 2 (1983) 224-228, MR. 85b:05138.
8. Cycles of each length in tournaments, (with F. Tian, Z. Wu), *J. Combinatorial Theory, B*, Vol. 33, No. 3 (1982) 245-255, MR. 84c:05059.