Faculty Publications 2008-2009, Department of Mathematics, West Virginia University

Aslam, M.; **Riemenschneider, S. D.**; Shen, L.; Smoothing transforms for wavelet approximation of piecewise smooth functions. IET Image Process. Oct 2008, 2 5, 239-248.

Fan, Genghua; **Lai, Hongjian**; Xu, Rui; **Zhang, Cun-Quan**; Zhou, Chuixiang; Nowhere-zero 3-flows in triangularly connected graphs. J. Comb. Theory Ser. B Nov 2008, 98 6, 1325-1336.

IML-Institutional Change in Lower Division Mathematics, Robert Mayes, Fredrick Butler, Melanie Butler, **Edgar Fuller**, **Michael Mays**, **Laura Pyzdrowski**, A chapter in Exploring the Evidence: Campus-Wide Initiatives in the First College Year, The First-Year Experience Monograph Series, The National Resource Center for The First-Year Experience and Students in Transition 49 (Section 7), 127-131.

Edgar Fuller, **Marjorie Darrah** and **David Miller**, Comparing Partial-credit Graded Examinations and an End of Semester Bonus Quiz for Computerized Examinations, Proceedings of the 2009 International Conference on Technology in Collegiate Mathematics.

Gingold, H.; Factorization of matrix functions and their inverses via power product expansions. Linear Algebra and its Applications, 430 (11) (2008), 2835-2858.

Goldwasser, John L.; Klostermeyer, William F.; Tight bounds for eternal dominating sets in graphs. Discret. Math. 28-Jun 2008, 308 12, 2589-2593.

Goldwasser, J; Wang, XM; Wu, YK; Does the lit-only restriction make any difference for the sigma-game and sigma(+)-game?, Eur. J. Comb., May 2009, 30 4, 774-787.

Gould, H. W.; Sums of powers of binomial coefficients via Legendre polynomials, Part 2. ARS Comb., Jan 2008, 86, 161-173.

Gould, H. W.; A note on combinatorial identities arising from the Lagrange-Waring interpolation formula. ARS Comb., Jan 2008, 86, 281-288.

Gould H.W.; and **Quaintance, Jocelyn**; Implications of Spivey's Bell Number Formula. J. Integer Sequences, Vol. 11 (2008), Article 08.37.

Gould H.W. and **Quaintance, Jocelyn**; Roof and Floor Analogs of the Bell Numbers. Integers, Vol 7 (2008) Article A58.

Hattori, Harumi; Existence of solutions with moving phase boundaries in thermoelasticity. J. Hyberbolic Differ. Equ., Sep 2008, 5 3, 589-611.

Fan, Suohai; **Lai, Hong-Jian**; Shao, Yehong; Zhang, Taoye; Zhou, Ju.; Degree sequence and supereulerian graphs. Discret. Math., 28-Dec 2008, 308 24, 6626-6631.

Lili, Zhang; Eschen, Elaine; **Lai, Hong-Jian**; Shao, Yehong; The s-Hamiltonian index. Discret. Math., 28-Oct 2008, 308 20, 4779-4785.

Wu, Ying; McCrone, Susan H.; **Lai, Hong J.**; Health behaviors and transitions of physical disability among community-dwelling older adults. Res. Aging, Sep 2008, 30 5, 572-591.

Lai, Hong-Jain; **Liang, Yanting**; Shao, Yehong; On s-hamiltonian-connected line graphs. Discret. Math. 28-Sep 2008, 308 18, 4293-4297.

Jin, Yan; Kewen, Zhao; **Lai, Hong-Jian**; Zhou, Ju; New sufficient conditions for s-Hamiltonian graphs and s-Hamiltonian connected graphs. ARS Comb., Jul 2008, 88, 217-227.

Chen, Jingjing; Eschen, Elaine; **Lai, Hong-Jian**; Group connectivity of certain graphs. ARS Comb., Oct 2008, 89, 141-158.

Lai, Hong-Jian; Shao, Yehong; Zhan, Mingquan; Every 4-connected line graph of a quasi claw-free graph is hamiltonian connected. Discret. Math., 28-Nov 2008, 308 22, 5312-5316.

Lai, Hong-Jian; Xu, Rui; Zhou, Ju; On group connectivity of graphs. Graphs Comb., Jun 2008, 24 3, 195-203.

Lai, Hong-Jian; Liu, Bolian; Liu, Yan; Shao, Yehong; Spanning cycles in regular matroids without M* (K-5) minors. Eur. J. Comb., Jan 2008, 29 1, 298-310.

Li Dengxin; **Lai, Hong-Jian**; Shao, Yehong; Zhan, Mingquan; Hamiltonian connected hourglass free line graphs. Discret. Math., 28-Jun 2008, 308 12, 2634-2636.

Zhao Kewen; **Lai, Hong-Jian**; Zhou, Ju; Hamiltonian-connected graphs. Comput. Math. Appl., Jun 2008, 55 12, 2707-2714.

Li, XM; Li, DX; **Lai, HJ**; The supereulerian graphs in the graph family C(l, k) Discret. Math., 6-May 2009, 309 9, 2937-2942.

Catlin, PA; **Lai, HJ**; Shao, Y; Edge-connectivity and edge-disjoint spanning trees, Discret. Math. 28-Mar 2009, 309 5, 1033-1040.

Lai, HJ; Miao, LY; Shao, YH; Every line graph of a 4-edge-connected graph is Z(3)-connected, Eur. J. Comb., Feb 2009 30 2, 595-601.

Lai, HJ; Shao, YH; Wu, HH; Zhou, J.; On mod (2p+1)-orientations of graphs. J. Comb. Theory Ser. B Mar 2009, 99 2, 399-406.

Kannan, L; Hobbs, A; **Lai, HJ**; Lai, HY; Transforming a graph into a 1-balanced graph, Discret Appl. Math., 28-Jan 2009, 157 2, 300-308.

Subramani, K; **Lai, HJ**; Gu, XF; Random walks for selected boolean implication and equivalence problems, Acta Inform., Apr 2009, 46 2 155-168.

Gu, Xianfeng; Madduri, Kamesh; Subramani, K and **Lai, HJ**; Improved Algorithms for Detecting Negative Cost Cycles in Undirected Graphs, Lecture Notes in Computer Science, June 2009, 5598 (2009), 40-50.

Mays, M., Plunkett, H., **Pyzdrowski, L.**, Reger, C., and Reger, N. (2008) West Virginia ACT Guide, West Virginia Department of Education, http://wvde.state.wv.us/teach21/act-guides.html.

Pascal, M. and Shore, F.; "The Dreaded 'Work' Problems Revisited: Connections from Basic Fractions to Calculus", Mathematics Teacher, 101 (7), 2008.

Butler, M., **Pyzdrowski, L.**, **Goodykoontz, A.** and Walker, V. (2008) The Effects of Feedback on Online Quizzes. International Journal for Technology in Mathematics Education, 15(4) 131-136.

Pyzdrowski, L., Butler, M. Walker, V., and Pyzdrowski, A. (2008). College Algebra: An Overview of Program Change. Proceedings of The 6th Annual Hawaii International Conference on Education, USA. Retrievable from: http://www.hiceducation.org/proceedings_edu.htm.

Quaintance, Jocelyn; Symmetrically Inequivalent Partitions of a Square Array. The Australasian Journal of Combinatorics, Vol. 41 (2008), pp. 15-137.

Fang, WF; **Zeng, SX**; Numerical recovery of Robin boundary from boundary measurements for the Laplace equation. J. Comput. Appl. Math.15-Feb 2009, 224 2 573-580.

Luo, Rong; Xu, Rui; Zang, Wenan; **Zhang, Cun-Quan**; Realizing degree sequences with graphs having nowhere-zero 3-flows. SIAM Discret. Math., 2008, 22 2, 500-519.

Zhang, Cun-Quan; Ou, Yongbin; Clustering, Community Partition and Disjoint Spanning Trees. ACM Trans. Algoritm., Jun 2008, 4 3.

Wang, X.F. ; Zhang, T.; **Zhang, Cun-Quan;** Nowhere-zero *4*-flow in almost Petersen-minor free graphs, Discrete Math. 309 (2009) 1025–1032.

Xie, D; **Zhang, Cun-Quan;** Flows, flow-pair covers, cycle double covers, Discrete Math. 309 (2009) 4682–4689.

Niu, J; **Zhang, Cun-Quan;** Cliques, Minors and Apex Graphs, Discrete Math 309 (2009) 4095–4107.

Hao, R; Niu, J; **Wang, X.F. ; Zhang, Cun-Quan** and Zhang, T. ; A Note on Berge-Fulkerson Coloring, Discrete Math. 309 (2009) 4235_4240.

Patent: **Zhang, Cun-Quan** and Y. B. Ou; Method for data clustering and classification by a graph theory model -- network partition into high density subgraphs, US patent, (2009) # 11/416,766.