

**Math Department**  
**2012 Peer-Reviewed Publication List**

Ciesielski, Krzysztof Chris; Udupa, Jayaram K.; Falcao, A. X.; Miranda, P. A. V., Fuzzy Connectedness Image Segmentation in Graph Cut Formulation: A Linear-Time Algorithm and a Comparative Analysis, *Journal of Mathematical Imaging and Vision*, 44 (3), 375-398, 10.1007/s10851-012-0333-3, 2012.

K.C. Ciesielski and T. Nishura, Continuous and smooth images of sets, *Real Anal. Exchange* 37(2) (2012), 305-313.

K.C. Ciesielski and T. Glatzer, Functions continuous on twice differentiable curves, discontinuous on large sets, *Real Anal. Exchange* 37(2) (2012), 353-361.

Darrah, M. (2012). The Use of Touch Technology in Science to Provide Access for Students who are Visually Impaired. *Journal of Technology Integration*. Vol. 4 (1) 2012.

M. Darrah, E. Fuller, T. Munasinghe, K. Duling, M. Gautam, and M. Wathen. Using genetic algorithms for tasking teams of raven uavs. *Journal of Intelligent & Robotic Systems*, pages 1-11, 2012.

Garcia, N. and Engelke, N. (2012) Gestures as Facilitators to Proficient Mental Modelers. Published in the Proceedings of the 34th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education.

CadwalladerOlsker, T. and Engelke, N. (2012) Does a Statement of Whether Order Matters in Counting Problems Affect Students' Strategies? In (Eds.) S. Brown, S. Larsen, K. Marrongelle and M. Oehrtman, Proceedings of the 15th Annual Conference on Research in Undergraduate Mathematics Education, Portland, OR.

Kimani, P. and Engelke, N. (2012) Rate Problems: Thinking Across the Curriculum. *The Mathematics Teacher*, 106(5), 370-377.

Fuller, E., Deshler, J., Kuhn, B. & Squire, D., Developmental Student Success in Course from College Algebra to Calculus, Proceedings from the 25th Annual International Conference on Technology in Collegiate Mathematics, Orlando, FL

X. Qi, E. Fuller, Q. Wu, Y. Wu, and C.Q. Zhang. Laplacian centrality: A new centrality measure for weighted networks. *Information Sciences*, 194:240-253, 2012.

X. Qi, E. Fuller, Q. Wu, and C.Q. Zhang. Numerical characterization of dna sequence based on dinucleotides. *The Scientific World Journal*, 2012:1-6, 2012.

Gingold, Harry, Divergence of solutions of polynomial finite-difference equations, *Proceedings of the Royal Society of Edinburgh Section A-Mathematics*, Vol. 142 (4), pp. 787-804, 2012.

Goldwasser, John; Talbot, John, Vertex Ramsey Problems in the Hypercube, Siam Journal of Discrete Mathematics, 26 (2), 838-853, 10.1137/110832239, 2012.

Henry W. Gould and with Jocelyn Quaintance, Double fun with double factorials, Mathematics Magazine, 85(2012), No. 3. June, pp. 77-192.

Joel V. Brawley and John Brillhart and Henry W. Gould, Recollections of Leonard Carlitz, Acta Arithmetica, 152(2012), No. 4, pp. 361-372.

Joel V. Brawley, John Brillhart and Henry W. Gould; Editors, The publications of Leonard Carlitz, Acta Arithmetica. 152(2012), No. 4, pp.373-405.

K. Radhakrishnan, A.M. Halász, M.M. McCabe, J.S. Edwards, B.S. Wilson. *Mathematical Simulation of Membrane Protein Clustering for Efficient Signal Transduction*. Ann. Biomed. Eng. 40(11):2307-18, 2012.

Xinmin Hou, Hong-Jian Lai, Ping Li, and C. Q. Zhang, Group Connectivity of Complementary Graphs, J. Graph Theory, 69 (2012), 464-470.

Weihua Yang, Liming Xiong, Hong-Jian Lai and Xiaofeng Guo, Hamiltonicity of 3-connected line graphs, Applied Math. Letters, 25 (2012), 1835-1838.

Li, Ping; Lai, Hong-Jian; Liang, Yanting, Characterization of removable elements with respect to having  $k$  disjoint bases in a matroid, Discrete Applied Mathematics, 160 (16-17), 2445-2451, 10.1016/j.dam.2012.07.01, 2012.

Li, Ping; Lai, Hong-Jian; Shao, Yehong; Zhan, Mingquan, Spanning cycles in regular matroids without small cocircuits, European Journal of Combinatorics, 33 (8), 1765-1776, 10.1016/j.ejc.2012.03.033, 2012.

Gu, Xiaofeng; Lai, Hong-Jian; Liang, Yanting, Multigraphic degree sequences and supereulerian graphs, disjoint spanning trees, Applied Mathematics Letters, 25 (10), 1426-1429, 10.1016/j.aml.2011.12.016, 2012.

Xu, Jinquan; Li, Ping; Lai, Hong-Jian, The Connectivity and Diameter of Second Order Circuit Graphs of Matroids, Graphs and Combinatorics, 28 (5), 737-742, 10.1007/s00373-011-1074-6, 2012.

Li, Deying; Fan, Suohai; Lai, Hong-Jian; Yao, Senmei, A dual version of the Brooks group coloring theorem, Discrete Mathematics, 312 (15), 2294-2303, 10.1016/j.disc.2012.03.034, 2012.

Yang, Weihua; Lai, Hongjian; Li, Hao; Guo, Xiaofeng, Collapsible graphs and Hamiltonian connectedness of line graphs, Discrete Applied Mathematics, 160 (12), 1837-1844, 10.1016/j.dam.2012.03.028, 2012.

Li, Xiaomin; Li, Dengxin; Lai, Hong-jian, Spanning Eulerian Subgraphs in Generalized Prisms, ARS Combinatoria, 106, 305-312, 2012.

Zhao Kewen; Zhang Lili; Lai, Hong-Jian; Shao, Yehong, Hamiltonian graphs involving neighborhood conditions, ARS Combinatoria, 105, 161-170, 2012.

Chen, Ye; Fan, Suohai; Lai, Hong-Jian, On 3-connected hamiltonian line graphs, Discrete Mathematics, 312 (11), 1877-1882, 10.1016/j.disc.2012.02.024, 2012.

Li, Xiangwen; Lai, Hong-Jian; Shao, Yehong, Degree condition and  $Z(3)$ -connectivity, Discrete Mathematics, 312 (10), 1658-1669, 10.1016/j.disc.2012.01.013 , 2012.

Chen, Ye; Fan, Suohai; Lai, Hong-Jian; Song, Huimin; Sun, Lei, On dynamic coloring for planar graphs and graphs of higher genus, Discrete Applied Mathematics, 160 (8-Jul), 1064-1071, 10.1016/j.dam.2012.01.012, 2012.

Niu, Zhaohong; Lai, Hong-Jian; Xiong, Liming, Spanning subgraph with Eulerian components, Discrete Mathematics, 312 (5), 1013-1018, 10.1016/j.disc.2011.11.003, 2012.

Hou, Xinmin; Lai, Hong-Jian; Zhan, Mingquan; Zhang, Taoye; Zhou, Ju,  $Z(3)$ -connectivity of 4-edge-connected 2-triangular graphs, European Journal of Combinatorics, 33 (2), 182-188, 10.1016/j.ejc.2011.09.041, 2012.

Miller, D. and Moseley, J. (2012). *A Mysterious Property of Cubic Polynomials Sheds Light on the Zeros of General Polynomials*. MathAMATYC Educator, vol. 3(3).

Miller, D. and Sugden, S. (2012). Aspects of Elementary Number Theory Illustrated in the Spreadsheet Environment. Chapter 2 of "Computers in Education", Vol. 2, 195 - 214, Nova Science Publishers, Inc (ISBN 978-1-62100-623-7).

Miller, D. (2012). Illustrating the Extension of a Special Property of Cubic Polynomials to Nth Degree Polynomials. Proceedings for the Twenty-fourth Annual International Conference on Technology in Collegiate Mathematics, Orlando, Florida, March 22 – 25, 2012, Vol 24, 24C041 accessed at <http://archives.math.utk.edu/ICTCM/v24.html>.

Moseley, James. "The Discrete Agglomeration Model: Equivalent Problems", Accepted August, 2011, AM Acceptance Notification [7400549]. Published by Applied Mathematics 2012, November, No.3, p.1702-1718.

Pyzdrowski, L. , Sun, Y., Walker, V., Pyzdrowski, A., Butler, M., and Chen, W. (2012) Integration of Interactive Online Learning into Introductory College Mathematics Courses, Advancement in Online Education: International Perspectives and Practices, Qiuyun Lin ed., Nova Science Publishers, New York, USA. ISBN: 978-1-61470-926-6 (ebook) or ISSN: 2161-9034.Vol. 2, 69-84.

Butler, M., Pyzdrowski, L., Walker, V., and Butler, F. (2012) The Effects of Feedback on Distributed Practice with Online Homework, *Advancement in Online Education: International Perspectives and Practices*, Qiuyun Lin ed., Nova Science Publishers, New York, USA. ISBN: 978-1-61470-926-6 (ebook) or ISSN: 2161-9034. Vol. 2, 125 - 138.

Pyzdrowski, L., Sun, Y., Curtis, R., Miller, D., Wynn, G., and Hensel, R. (2012) Readiness and Attitudes as Indicators for Success in College Calculus, *International Journal of Science and Mathematics Education*, 1 - 26. e-version

Pyzdrowski, L. and Pyzdrowski, A. (2012). Teaching Algebra Support with Robots. Proceedings of The 10th Annual Hawaii International Conference on Education, USA. Retrieval from [http://www.hiceducation.org/proceedings\\_edu.htm](http://www.hiceducation.org/proceedings_edu.htm).

Sealey, V. & Engelke, N. (2012). The Great Gorilla Jump: An Introduction to Riemann Sums and Definite Integrals. *MathAMATYC Educator*, 3 n3. American Mathematical Association of Two-Year Colleges, pp 18-22.

Sealey, V., Deshler, J., & Toth, K., First Semester Calculus Students' Understanding of the Intermediate Value Theorem, In (Eds.) S. Brown, S. Larsen, K. Marrongelle and M. Oehrtman, *Proceedings from the 15th Annual Conference on Research in Undergraduate Mathematics Education*, Portland, OR.

Toth, K. & Sealey, V. (2012). Student Understanding of Integration When Applied to Finding Volumes of Solids. *Proceedings of the 15th Annual Conference on Research in Undergraduate Mathematics Education*. Conference on Research in Undergraduate Mathematics Education, Portland, OR. Web.

B. L. Keyfitz and C. Tsikkou. Conserving the Wrong Variables in Gas Dynamics: A Riemann Solution with Singular Shocks. *Quarterly of Applied Mathematics* 70, no. 3, 407-436 (2012). In the special issue in honor of Dafermos' 70th birthday.

Gangbo, Wilfrid; Tudorascu, Adrian, Homogenization for a class of integral functionals in spaces of probability measures, *Advances in Mathematics*, 230 (3), 1124-1173, 10.1016/j.aim.2012.03.005, 2012.

Yang Xiang, Kun Huang and C.Q. Zhang, Predicting glioblastoma prognosis networks using weighted gene co-expression network analysis on TCGA data *BCM Bioinformatics* 2012, 13 (Suppl 2):S12.

X. M. Hou, H. J. Lai, P. Li and C.Q. Zhang, Group Connectivity of Complementary Graphs, *J. Graph Theory* Vol. 69 (2012) p. 464-470.

Hou, Xinmin; Zhang, Cun-Quan, A note on shortest cycle covers of cubic graphs, *Journal of Graph Theory*, 71 (2), 123-127, 10.1002/jgt.20636, 2012.

Gould, Ronald J.; Tang, Wenliang; Wei, Erling; Zhang, Cun-Quan, The edge spectrum of the saturation number for small paths, *Discrete Mathematics*, 312 (17), 2682-2689, 10.1016/j.disc.2012.01.012, 2012.

Ye, Dong; Zhang, Cun-Quan, Cycle double covers and the semi-Kotzig frame, *European Journal of Combinatorics*, 33 (4), 624-631, 10.1016/j.ejc.2011.12.001, 2012.

Shu, Jinlong; Zhang, Cun-Quan; Zhang, Taoye, Flows and parity subgraphs of graphs with large odd-edge-connectivity, *Journal of Combinatorial Theory Series B*, 102 (4), 839-851, 10.1016/j.jctb.2012.03.002, 2012.

Zhang, Xiaodong; Zhang, Cun-Quan, Kotzig frames and circuit double covers, *Discrete Mathematics*, 312 (1), 174-180, 10.1016/j.disc.2011.07.025, 2012.