Math Department
2016 Peer-Reviewed Publication List

.

Celikbas, E., Ananthnarayan, H., Yang, Z. (2016). Decomposing Gorenstein Rings as Connected Sums. *Extended Abstracts Spring 2015, Interactions between Representation Theory, Algebraic Topology and Commutative Algebra, Trends in Mathematics, Research Perspectives CRM Barcelona* (vol. 5, pp. 35-39). Springer-Birkhäuser Basel.

Celikbas, Olgur; Sather-Wagstaff, Sean Testing for the Gorenstein property. Collect. Math. 67 (2016), no. 3, 555–568.

Celikbas, O. (2016). Rigid and Test Modules. *Extended Abstracts Spring 2015, Interactions between Representation Theory, Algebraic Topology and Commutative Algebra, Trends in Mathematics, Research Perspectives CRM Barcelona* (vol. 5, pp. 41-46). Springer-Birkhäuser, Basel.

Celikbas, O., Wiegand, R. (2016). Vanishing of Tor. In Dolors Herbera, Santiago Zarzuela and Wolfgang Pitsch (Ed.), *Extended Abstracts Spring 2015, Interactions between Representation Theory, Algebraic Topology and Commutative Algebra, Trends in Mathematics, Research Perspectives CRM Barcelona* (vol. 5, pp. 181-185). Springer-Birkhäuser, Basel.

Ciesielski, K., Herman, G. T., Kong, T. Y. (2016). General Theory of Fuzzy Connectedness Segmentations. Journal of Mathematical Imaging and Vision, 55(3), 304–342. http://dx.doi.org/10.1007/s10851-015-0623-7

Tong, Y., Udupa, J. K., **Ciesielski, K**., Wu, C., McDonough, J. M., Mong, D. A., Campbell, Jr, R. M. (2017). Retrospective 4D MR image construction from free-breathing slice Acquisitions: A novel graph-based approach. (vol. 35, pp. 345-359). Medical image analysis.

Ciesielski, K., Miller, D. (2016). A continuous tale on continuous and separately continuous functions (1st ed., vol. 41, pp. 19–54). Real Anal. Exchange.

Ciesielski, K., Jasinski, J. (2016). An auto-homeomorphism of a Cantor set with derivative zero everywhere (2nd ed., vol. 434, pp. 1267–1280). J. Math. Anal. Appl.. http://dx.doi.org/10.1016/j.jmaa.2015.09.076

Ciesielski, K., Wojciechowski, J. (2016). Cardinality of regular spaces admitting only constant continuous functions (vol. 47, pp. 313–329). Topology Proc..

Ciesielski, K., Jasinski, J. (2016). On fixed points of locally and pointwise contracting maps (vol. 204, pp. 70 - 78). Topology and its Applications. http://www.sciencedirect.com/science/article/pii/S0166864116001103.

Akiyama, Y., Nolan, J. J., **Darrah, M**., Abdal Rahem, M., Wang, L. (2016). A Method for Measuring Consensus Within Groups: An Index of Disagreement Via Conditional Probability. Information Sciences. www.sciencedirect.com/science/article/pii/S0020025516000864

Hansen, E. G., Liu, L., Rogat, A., Hakkinen, M. T., **Darrah, M.** (2016). Designing Innovative Science Assessments That Are Accessible for Students Who Are Blind. Journal of Blindness Innovation & Research, 6(1). https://nfb.org/images/nfb/publications/jbir/jbir16/jbir060104abs.html

Trujillo, M. M., **Darrah, M**., Speransky, K., DeRoos, B., Wathen, M. (2016). Optimized flight path for 3D mapping of an area with structures using a multirotor. 2016 International Conference on Unmanned Aircraft Systems (ICUAS) (pp. 905–910). 2016 International Conference for Unmanned Aircraft Systems / IEEE.

Darrah, M., Trujillo, M. M., DeRoos, B., Wathen, M. (2016). Real-time retasking of multiple coordinated assets. 2016 International Conference on Unmanned Aircraft Systems (ICUAS) (pp. 1041–1048).

Jackson, K., Jouben, L. and **Darrah, M**. (2016). Encouraging Sponsorship to Build Faculty Members' Developmental Networks. In Proceedings of University of New Mexico 2016 Annual Mentoring Conference, Albuquerque, NM, October 24-28, 2016.

Deshler, J. M., Miller, D. A., Pascal, M. (2016). An Active Classroom: The Emerging Scholars Program at West Virginia University. PRIMUS: Problems, Resources, Issues in Mathematics Undergraduate Studies, 26(9), 1–13.

Deshler, J. M. (2016). Reflections on Our First Calculus Undergraduate Teaching Assistant. Adults Learning Mathematics: An International Journal, 11(1), 59–63.

Deshler, J. M., Fuller Jr., E. J. (2016). The Effects of Migration to a Blended Self-Paced Format for a Remedial Pre-College Algebra Mathematics Course. Journal of Computers in Mathematics and Science Teaching, 35(2), 113–129.

Ellis, J., **Deshler, J. M.,** Speer, N. (2016). Pass Rates and Student Evaluations: Evaluating Professional Development of Graduate Teaching Assistants. International Group for the Psychology of Mathematics Education Annual Conference.

Ellis, J., **Deshler, J. M.,** Speer, N. (2016). Supporting Institutional Change: A Two-Pronged Approach Related to Graduate Teaching Assistant Professional Development. Proceedings of the 19th Annual Conference on Research in Undergraduate Mathematics Education. Pittsburgh, PA:

The LIGO Scientific Collaboration, The Virgo Collaboration, **Etienne, Z**. (2016). Improved Analysis of GW150914 Using a Fully Spin-Precessing Waveform Model. Physical Review X, 6(4), 041014.

The LIGO Scientific Collaboration, The Virgo Collaboration, **Etienne, Z**. (2016). Properties of the Binary Black Hole Merger GW150914. Physical Review Letters, 116(24), 241102.

Devine, C., **Etienne, Z**., McWilliams, S. (2016). Optimizing spinning time-domain gravitational waveforms for advanced LIGO data analysis. Classical and Quantum Gravity, 33(12), 125025:1-17.

Fuller Jr., E. J., Deshler, J. M., Darrah, M. (2016). Effects of an External Mentoring Program in a Department of Mathematics. International Journal of Gender, Science and Technology, 8(2), 300–309. http://genderandset.open.ac.uk/index.php/genderandset/article/view/442/787

Qi, X., Luo, R., **Fuller Jr., E. J., Luo, R., Zhang, C.-Q**. (2016). Signed quasi-clique merger: A new clustering method for signed networks with positive and negative edges. International Journal of Pattern Recognition and Artificial Intelligence, 30(03), 1650006. http://www.worldscientific.com/doi/abs/10.1142/S0218001416500063

Fuller Jr., E. J., Deshler, J. M., Darrah, M., Trujillo, M., Wu, X. (2016). Anxiety and Personality Factors Influencing the Completion Rates of Developmental Mathematics Students. First conference of International Network for Didactic Research in University Mathematics.

Fuller Jr., E. J., Deshler, J. M. (2016). The Impact of Anxiety and Personality on Student Performance in Developmental Mathematics Courses. Proceedings of the 2016 International Conference on Mathematics Education.

Hewett, P., **Ganser, G**. (2016). Models for nearly every occasion: Part I-One box models. Journal of Occupational and Environmental Hygiene, 14(1), 49-57. http://dx.doi.org/10.1080/15459624.2016.1213392

Hewett, P., **Ganser, G.** Models for nearly every occasion: Part II-Two box models. JOEH 2017, Vol, 14, No. 1, 58-71.

Gingold, H., Quaintance, J. (2016). Combinatorial analysis of integer power product expansions. Online J. Anal. Comb., 11, 25. http://web.math.rochester.edu/ojac/vol11/121.pdf

Goldwasser, J. L., B. Nagle, A. Saez (2016). An extremal problem for finite lattices. Theory and Applications of Graphs, 3(1), 7.

Gould Henry W., Jocelyn Quaintance (2016). On the binomial identities of Frisch and Klamkin, *Journal of Integer Seqeunces, Vol.16, Article 16.7.7. 4 pages.*

Kerketta, R**., Halász, Á. M**., Steinkamp, M. P., Wilson, B. S., Edwards, J. S. (2016). Effect of Spatial Inhomogeneities on the Membrane Surface on Receptor Dimerization and Signal Initiation. Frontiers in Cell and Developmental Biology, 4(Article 81), 13 pp. doi.org/10.3389/fcell.2016.00081

Infante, N. E., Karakok, G., Wangberg, A. (2016). Engaging Students in the Classroom with WeBWorK CLASS. PRIMUS, 26(6), 570-584.

Infante, N. E. (2016). The Second Derivative Test: A Case Study of Instructor Gesture Use (pp. 1204-1211). Tucson, AZ: Proceedings of the 38th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA).

Infante, N. E., Darrah, M., Murphy, K. (2016). A Framework for Examining the 2-D and 3-D Spatial Skills Needed for Calculus (pp. 736-740). Pittsburgh, PA: Proceedings of the 19th Annual Conference on Research in Undergraduate Mathematics Education.

Infante, N. E. (2016). Highlighting Key Links Through Gesture: A Case Study of the Second Derivative Test. Hamburg, Germany: 13th International Congress on Mathematics Education.

Infante, N. E. (2016). Using Gesture to Highlight Key Links of the Second Derivative Test (pp. 171). Paris, France: Proceedings of the 7th Conference of the International Society for Gesture Studies: Gesture - Creativity - Multimodality.

Irwin, C. L. In C. Irwin (Ed.), PROCEEDINGS Symposium: Industries of the Future- West Virginia. Robert C. Byrd Health Sciences Center- Charleston Division.

LaRue, R., Infante, N. E. (2016). The Graphical Representation of an Optimizing Function (pp. 1014-1021). Pittsburgh, PA: Proceedings of the 19th Annual Conference on Research in Undergraduate Mathematics Education.

Li, S., Zhang, Z**., Lai, H.-J**. (2016). Algorithm for constraint partial inverse matroid problem with weight increase forbidden. Theoretical Computer Sciences, 640, 119 - 124.

Zhang, Z., **Lai, H.-J.,** Li, S., D. Du, (2016). Algorithms for the partial inverse matroid problem in which weights can only be increased. Journal of Global Optimimization, 65, 801-811.

Alsatami, K., Lai, H.-J., Zhang, X. (2016). Dicycle cover of Hamiltonian oriented graphs. Journal of Discrete Mathematics, 2016, Article ID 7942192.

Gu, X., **Lai, H.-J**., Li, P., Yao, S. (2016). Edge-disjoint spanning trees, edge connectivity and eigenvalues in graphs. Journal of Graph Theory, 81, 16 -29.

Miao, L., **Lai, H.-J**., Guo, Y.-F., Miao, Z. (2016). Element deletion changes in dynamic coloring of graphs. Discrete Math, 339, 1600-1604.

Liang, Y., **Lai, H.-J., Luo, R**., Xu, R. (2016). Extendability of contractible configurations for nowhere-zero flows and modulo orientations. Graphs and Combinatorics, 32, 1065-1075.

Hong, Y., Gu, X., **Lai, H.-J**., Liu, Q. (2016). Fractional spanning tree packing, forest covering and eigenvalues. Discrete Applied Math, 213, 219-223.

Song, H., **Lai, H.-J**., Wu, J. (2016). On r-hued coloring of planar graphs with girth at least 6,. Discrete Applied Math, 198, 251-263.

Alsatami, K., Zhang, X., J., **Lai, H.-J**. (2016). On a Class of Supereulerian Digraphs. Applied Mathematics, 7, 320-326.

Yu, A., Liu, J.**, Han, M., Lai, H.-J**. (2016). On dense strongly Z_{2s+1}-connected graphs. Discrete Math, 339, 850-856.

Hou, X., **Lai, H.-J., Zhang, C.Q**. (2016). On Perfect Matching Coverings and Even Subgraph Coverings. Journal of Graph Theory, 81, 83-91.

Lin, X., Fan, S., **Lai, H.-J., Xu, M**. (2016). On the lower bound of k-maximal digraphs. Discrete Math, 339, 2500-2510.

Han, Y., Liu, Q., **Lai, H.-J**. (2016). Ore-type degree condition of supereulerian digraphs. Discrete Math, 339, 2042-2500.

Algefari, M., Alsatami, K., Lai, H.-J., Liu, J. (2016). Supereulerian digraphs with given local structures. Information Processing Letters, 116, 321 - 326.

Alfegari, M., Lai, H.-J. (2016). Supereulerian digraphs with large arc-strong connectivity. Journal of Graph Theory, 81, 393-402.

Ma, X., **Lai, H.-J**., Xiong, W., Wu, B., An, X. (2016). Supereulerian graphs with small circumference and 3-connected hamiltonian claw-free graphs. Discrete Applied Math, 202, 111-130.

Li, P., Li, H., Chen, Y., Fleischner, H., **Lai, H.-J.** (2016). Supereulerian graphs with width s and s-collapsible graphs. Discrete Applied Math, 200, 79-94.

Lai, H.-J., Chang, H., Omidi, G. R., Zakeri, N. On group choosability of graphs, I. Ars Combinatoria, 126 (2016) 195-209.

Li, D., Zhang, Z. (2016). Conical Shock Wave for Non-isentropic Compressible Euler System of Equations. Journal Hyperbolic Diff. Eq., 13 (2016), pp. 215-231.

Cheng, J., Lorenzen, K., **Luo, R**., Thompson, J. (2016). A note on the size of edge-chromatic 4-critical graphs. Discrete Mathematics, 339, 2393-2398.

Miao, Z., Shi, R., Hu, X., **Luo, R.** (2016). Adjacent vertex distinguishing total colorings of 2-degenerate graphs. Discrete Mathematics, 339, 2446-2449.

Wang, Y., **Cheng, J., Luo, R.**, Mulley, G. (2016). Adjacent vertex-distinguishing edge coloring of 2-degenerate graphs. Journal of Combinatorial Optimization, 31, 874-880.

Luo, R., Miao, Z., Zhao, Y. (2016). Finding $\Delta(\Sigma)$ for a surface Σ of characteristic -4. Journal of Graph Theory, 83, 277-302.

Mays, M. E., Pyzdrowski, L. The Gutter Problem. Mathematics Digital Library. www.mathdl.org

Miller, D. A., Deshler, J. M., Hansen, R. T. (2016). Bunny hops: using multiplicities of zeroes in calculus for graphing. International Journal of Mathematical Education in Science and Technology, 47(5), 803–813.

Miller, D. A., Infante, N. E., Weber, K. (2016). Mathematicians' Grading of Proofs with Gaps (pp. 1110-1118). Pittsburgh, PA: Proceedings of the 19th Annual Conference on Research in Undergraduate Mathematics Education.

Miller, D. A., Infante, N. E., Weber, K. (2016). Mathematicians' grading of proofs with gaps (pp. 9). 19th Annual Conference on Research in Undergraduate Mathematics Education,. **(Which one is correct??)**

Moseley, J., O'Brien, T. J., Nicoletti, P. Implementation of the JAYCOR MODEL for Agglomeration. Department of Energy/Morgantown Energy Technology Center Report.

Ogden, L. E. (2016). Students Perceptions of Learning College Algebra Online using Adaptive Learning Technology. Conference on Research in Undergraduate Mathematics Education 2016. http://sigmaa.maa.org/rume/RUME19v3.pdf

Pantea, C., Banaji, M. (2016). Some Results on Injectivity and Multistationarity in Chemical Reaction Networks. SIAM J. Applied Dynamical Systems, 15, 807-869.

Pantea, C., Johnston, M., Donnell, P. (2016). A computational approach to persistence, perma- nence, and endotacticity of biochemical reaction networks. Journal of Mathematical Biology, 72, 467-498.

Pantea, C., Conradi, C., Rendall, A. Deficiency theory for non-weakly reversible networks.

Pantea, C., Donnell, P., Donatelli, R., Marginean, A. (2016). CoNtRol, a webserver for reaction networks analysis. control.math.wvu.edu

Pyzdrowski, L., Ogden, L., Pyzdrowski, A. S., Walker, V. (2016). A Longitudinal Study of Students in a Dual-Enrollment Mathematics Program: A Focus on Preparation For Calculus. American Journal of Educational Research, 4(2), 204-209.

Pyzdrowski, L., Pyzdrowski, A. S. (2016). Making Videos Accessible for College Level Math .. Honolulu, Hawaii: Proceedings of The 14th Annual Hawaii International Conference on Education, USA.. hiceducation.org/conference-proceedings/

James Healy, **Ian Ruchlin**, Carlos O. Lousto, and Yosef Zlochower. (2016). High energy collisions of black holes numerically revisited. Phys. Rev. D 94, 104020. https://doi.org/10.1103/PhysRevD.94.104020

Sealey, V. L., Infante, N. E., Morrison, A. (2016). Measuring Active Learning with an Observation Protocol in College Calculus Classrooms (pp. 1426). Tucson, AZ: Proceedings of the 38th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA).

Sealey, V. L., Thompson, J. (2016). Student interpretation and justification of “backward” definite integrals (pp. 1275-1281). Proceedings of the 19th Annual Conference on Research in Undergraduate Mathematics Education.

Sealey, V. L., Thompson, J. (2016). Students' interpretation and justification of “backward” definite integrals (pp. 410-418). Proceedings of the 19th Annual Conference on Research in Undergraduate Mathematics Education. sigmaa.maa.org/rume/RUME19v3.pdf

Vincent, B., Sealey, V. L. (2016). Students’ concept image of tangent lines compared to their understanding of the definition of the derivative (pp. 1360-1366). Proceedings of the 19th Annual Conference on Research in Undergraduate Mathematics Education.

Darrah, M., Fuller Jr., E. J., Squire, D. Introduction to Calculus Labs. webcom6.grtxle.com/introcalculus

Jenssen, H. K., **Tsikkou, C.** (2016). Radial solutions to the Cauchy problem for the wave equation as limits of exterior solutions. Journal of Hyperbolic Differential Equations, 13(4), 833-860.

Tanveer, S., **Tsikkou, C.** (2016). Analysis of 2 + 1 diffusive-dispersive PDE arising in river braiding. European Journal of Applied Mathematics, 27(5), 756-780.

Jenssen, H. K., **Tsikkou, C.** (2016). Convergence of exterior solutions to radial Cauchy solutions for the wave equation. Electronic Journal of Differential Equations, 2016(266), 1-16.

Tsikkou, C. (2016). Singular shocks in a chromatography model. Journal of Mathematical Analysis and Applications, 439(2), 766-797.

Tudorascu, A. (2016). LAGRANGIAN SOLUTIONS FOR THE SEMI-GEOSTROPHIC SHALLOW WATER SYSTEM IN PHYSICAL SPACE WITH GENERAL INITIAL DATA. St. Petersburg Mathematical Journal, 27(3), 547-568. http://www.ams.org/publications/journals/journalsframework/spmj

wu, y., **Zhang, C.-Q**., Zhu, b. (2017). Vertex-coloring 3-edge-weighting of some graphs. Discrete Mathematics, 340, 154-159. http://ac.els-cdn.com/S0012365X16302692/1-s2.0-S0012365X16302692-main.pdf?_tid=54809f3e-8cc4-11e6-8da7-00000aab0f6b&acdnat=1475868734_166146bc7cb9b7b315ab77083c90984b

zhu, q., Guo, G., **Zhang, C.-Q.** (2016). On the fault diagnosis of multiprocessor systems under the PMC model. Journal of Combinatorial Optimization, 32, 960-969. http://link.springer.com/article/10.1007/s10878-015-9923-5

Zhang, C.-Q. (2016). Cycle covers (II) – circuit chain, Petersen chain and Hamilton weights. Journal of Combinatorial Theory B, 120, 36-63. http://www.sciencedirect.com/science/article/pii/S009589561630003X

Thomassen, C., Wu, Y., **Zhang, C.-Q**. (2016). The 3-flow conjecture, factors modulo k, and the 1-2-3-conjecture. Journal of Combinatorial Theory B, 121, 308-325. http://www.sciencedirect.com/science/article/pii/S009589561630051X

wu, y., ye, d., **zhang, c.-q.** (2016). Uniquely Forced Perfect Matching and Unique 3-Edge-Coloring,. Discrete Applied Mathematics, 216, 203-207. http://www.sciencedirect.com/science/article/pii/S0166218X16303110

miao, z., wang, x., **Zhang, C.-Q.** (2016). Hamilton circuits and essential girth of claw free graphs. graphs and combinatorics, 32, 311-321. http://link.springer.com/article/10.1007/s00373-015-1559-9