

## 2007 Department of Mathematics Publications List

**G. Ganser, I. Christie**, and M. McCawley, Two mathematical models for predicting dispersion in the human lung, *Journal of Biomechanical Engineering*, 129, 51-57, (2007).

M. McCawley, **G. Ganser, I. Christie**, T. Gottesman, and J. Dalton, United States Patent 7,241,269: Apparatus and Method for Delivery of an Aerosol, awarded July 2007.

**K. Ciesielski**, J.K. Udupa, P.K. Saha, Y. Zhuge: Iterative Relative Fuzzy Connectedness for Multiple Objects with Multiple Seeds, *Computer Vision and Image Understanding* 107(3) (2007), 160-182.

**K.C. Ciesielski** and J.K. Udupa, A general theory of image segmentation: level set segmentation in the fuzzy connectedness framework, *Medical Imaging 2007: Image Processing*, SPIE Proceedings 6512, 2007.

Pullum, Laura L., Brian J. Taylor, and **Marjorie A. Darrah**. *Guidance on the Verification and Validation of Neural Networks*. John Wiley & Sons, Inc, Hoboken, NJ, 2007.

**Marjorie Darrah** and Roxann Humbert. "Information Technology Diffusion and Career Awareness in Middle and High School Science and Mathematics Classrooms." In proceedings of Society for Information Technology Education Conference, San Antonio, Texas, March 2007.

**Marjorie Darrah** and William Niland. "Increasing UAV Task Assignment Performance through Parallelized Genetic Algorithms." In proceedings of Infotech@Aerospace Conference, Rohnert Park, California, May 2007.

**Marjorie Darrah**, Frances Van Scoy, and Patrick Plunkett. "Enabling Collaboration in High Performance Computing." In proceedings of ACM Special Interest Group for Information Technology Education, Destin, FL, October 2007.

**Marjorie Darrah**, Rebecca Giorcelli, Tracie Dodson, and Amy Blake. "A Comprehensive Program for Expanding Pathways to IT Careers." In proceedings of ACM Special Interest Group for Information Technology Education, Destin, FL, October 2007.

**Fang, Weifu**, Multi-phase permittivity reconstruction in electrical capacitance tomography by level-set methods. *Inverse Probl. Sci. Eng.* 15 (2007), no. 3, 213-247.

Paul Hewett and **Gary H. Ganser**, A Comparison of Several Methods for Analyzing Censored Data, *Ann. Occup. Hyg.*, Vol.51, No.7, pp 611-632, 2007.

**Gingold, Harry** (with F.Xue), A new technique for the asymptotic integration of potentially oscillatory differential systems. *International Journal of Pure and Applied Mathematics*. Vol 34, No.3 2007, 323-346.

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**Gingold, Harry**; Xue, Fei, A new technique for asymptotic integration of potentially oscillatory differential systems. Int. J. Pure Appl. Math. 34 (2007), no. 3, 323-346.

**Goldwasser, John L.**; Klostermeyer, William F., Odd and even dominating sets with open neighborhoods. Ars Combin. 83 (2007), 229-247.

**Gould, H. W.**, The inverse of a finite series and a third-order recurrent sequence, Fibonacci Quarterly, 44(2006), Nov. 302-315. (Published July 2007).

Carlitz, L.; **Gould, H. W.**, Remarks on MacMahon's identity for sums of cubes of binomial coefficients. Ars Combin. 85 (2007), 221-224.

**Gould, H. W.**; **Quaintance, Jocelyn**, Additional analysis of binomial recurrence coefficients. Appl. Anal. Discrete Math. 1 (2007), no. 2, 386-396.

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**Gould, H. W.**, Higher order extensions of Melzak's formula. Util. Math. 72 (2007), 23-32.

**Gould, H. W.** (with **Jocelyn Quaintance**), Floor and roof function analogs of the Bell numbers, Integers Journal, Vol. 7(2007), Paper # A58, 21 pages.

**Hattori, Harumi**, Asymptotic behavior of solutions to a system of viscous conservation laws related to a phase transition problem. J. Math. Anal. Appl. 334 (2007), no. 1, 656-685.

**Karwowski, Andrzej**, Grad's 13 moment equations in a modified form. *J. Stat. Phys.* 128 (2007), no. 3, 667-698.

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**Lai, Hong-Jian**; Shao, Yehong, Some problems related to Hamiltonian line graphs. *Proceedings of the International Conference on Complex Geometry and Related Fields*, 149-159, AMS/IP Stud. Adv. Math., 39, Amer. Math. Soc., Providence, RI, 2007.

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**Hong-Jian Lai**, Xiangwen Li and Gexin Yu, An inequality for the group chromatic number of a graph, *Discrete Math.*, 307 (2007) 3076-3080.

**Ying Wu**, Hai Huang, Bei Wu, Susan McCrone and **Hong-Jian Lai**, Age distribution and risk factors for the onset of severe disability among community-dwelling older adults with functional limitations, *The Journal of Applied Gerontology*, 26 (2007) 258-273.

**Dening Li**, Shock reflection and oblique shock waves, *Journal of Mathematical Physics*, 48(2007), 123102.1-20.

**Miller, D.** (2007). Helping Students Understand Technical Calculus via an Online Learning Supplement and Group Learning. Proceedings of the Mathematics Education into the 21<sup>st</sup> Century Project, 9<sup>th</sup> Annual International Conference in Math Education – Mathematics Education in a Global Community, Charlotte, NC.

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Bao Liu, **Sherman Riemenschneider**, and Zuowei Shen, An Adaptive Time-Frequency Representation and its Fast Implementation, *ASME Journal of Vibration and Acoustics*, Volume 129i (2007), Issue 2, pp. 169-178.844-1864.

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