

# Publications for 2011

## Refereed Article Publications

Author	Title
<b>Elizabeth Behrman</b>	(with M.J. Rethinam, A.K. Javali, A.E. Hart, and J.E. Steck. Paritantra) “A genetic algorithm for finding pulse sequences for nmr quantum computing,” <i>Journal of Systems Science and Engineering</i> 20, (2011), 32-42.
<b>Alexander Bukhgeym</b>	“Inverse Gravimetry Approach to Attenuated Tomography”, <i>Contemporary Mathematics</i> , 559 (2011), 49-63.
<b>Dharam V. Chopra</b>	(with R.M. Low and R. Dios) “Investigations on Strength eight balanced arrays using some classical Inequalities”, <i>The Journal of Combinatorial Mathematics and Combinatorial Computing</i> , Vol.78 (2011), pp.235-243.
<b>Dharam V. Chopra</b>	(with Richard M. Low and R. Dios) “New Results on the Existence of some balanced arrays using Moment Matrices”, <i>Congressus Numerantium</i> 205 (2010), 105-112.
<b>Dharam V. Chopra</b>	(with R. Dios, and Sin-Min Lee) “On Mod (2) Edge-Magic Graphs”, <i>The Journal of Combinatorial Mathematics and Combinatorial Computing</i> , 78 (2011), 323-339.
<b>Dharam V. Chopra</b>	(with Sin-Min Lee and Hsin-Hao Su) “On edge-balance index sets of Wheels”, <i>International Journal of Contemporary Mathematical Sciences</i> , 53 (2010), 2605-2620.
<b>Thomas K. DeLillo</b>	(with E. H. Kropf) “Numerical computation of the Schwarz-Christoffel transformation for multiply connected domains”, <i>SIAM Journal on Scientific Computing</i> , 33, 3 (2011), pp. 1369-1394.
<b>Thomas K. DeLillo</b> <b>Alan Elcrat</b>	(with E. H. Kropf) “Calculation of resistances for multiply connected domains using the Schwarz-Christoffel transformations”, <i>Computational Methods and Function Theory</i> , 11 (2) (2011), pp. 725-745.
<b>Alan Elcrat</b> <b>Kenneth Miller</b>	(with Trenton Albrecht) “Steady vortex dipoles with general profile functions”, <i>Journal of Fluid Mechanics</i> 670 (2011), 85-95.
<b>Buma Fridman</b> <b>Daowei Ma</b>	“Osgood-Hartogs type properties of power series and smooth functions”, <i>Pacific J. Math.</i> , 251 (2011), 67-79.
<b>Hussein H Hamdeh</b>	“Microstructural Analysis of Zinc Ferrites Nanoparticles by Means of X-ray Powder Diffraction and Mossbauer Spectroscopy”, <i>International Journal of Nanoparticles</i> , Vol. 5, No. 1 (2012), 56-63.
<b>Hussein H Hamdeh</b>	“Enhancement of The Critical Current Density For FeO Coated MgB <sub>2</sub> Thin Films at High Fields”, <i>Beilstein Journal of Nanotechnology</i> , 2 (2011), 809-813.
<b>Hussein H Hamdeh</b>	“Structural Properties of Pseudobrookite Fe <sub>2</sub> Ti <sub>10</sub> O <sub>5</sub> Powder Prepared by a New Method”, <i>International Journal of Nanoparticles</i> , Vol. 4, No. 1 (2011), 2-9.

- James C. Ho** (with R.S. Liu, I. Baginskiy, H.T. Kuo, S.M. Filipek, R. Wierzbicki, R. Sato, A.V. Tsvyashchenko, L. Fomicheva, H.H. Wu, C.B. Tsai, C.C. Yang, R. Asmatulu, and Y.Y. Chen) “Calorimetric properties of C14 and C15 YMn<sub>2</sub> and YMn<sub>2</sub>(H,D)<sub>6</sub>”, *Int. J. Hydrogen Energy* 36 (2011), 2285-2290.
- James C. Ho** (with H.L. Wamocha, H.E. Misak, Z. Song, H.Y. Chu, Y.Y. Chen, R. Asmatulu, and S-Y. Yang) “Cytotoxicity of release products from magnetic nanocomposites in targeted drug delivery”, *J. Biomater. Appl.* Doi. 10:1177/088532821142989 (2011), 1-7.
- James C. Ho** “Search for superconductors -- A review” *Physics Bimonthly (Taiwan)* 33 (2011), 395-406.
- Xiaomi Hu** (with Jurgen Hansohm, Linda Hoffmann and Ye Emma Zohner) “On convergence of row-modification algorithm for matrix projections”, *The Journal of Multivariate Analysis*, 105 (2012) 216-221.
- Xiaomi Hu** (with Arijit Banerjee) “On the test for the homogeneity of a parameter matrix with some rows constrained by synchronized order restrictions”, *The Journal of Multivariate Analysis*, doi: 10.1016/j.jmva.1012.01.00
- Victor Isakov** (with S. Kindermann) “Subspaces of stability in the Cauchy problem for the Helmholtz equation”, *Meth. Appl. of Analysis*, 18 (2011), 1-30.
- Victor Isakov** (with S. Leung and J. Qian) “A Fast Local Level Set Method for Inverse Gravimetry”, *J. Compt. Phys.*, 10 (2011), 1044-1070.
- Victor Isakov** “Increasing stability for the Schrodinger potential from the Dirichlet-to-Neumann map”, *Discr. Cont. Dynamical Syst. S*, 4 (2011), 631-641.
- Tianshi Lu** “Population Inversion by Chirped Pulses”, *Phys. Rev. A*, 84, 033411 (2011).
- Chunsheng Ma** “Vector random fields with second-order moments or second-order increments”, *Stochastic Analysis and Applications*, vol. 29 (2011), 197-215.
- Chunsheng Ma** “Covariance matrix functions of vector  $\chi^2$  random fields in space and time”, *IEEE Transactions on Communications*, vol. 59 (2011), 2554-2561.
- Chunsheng Ma** “Vector random fields with long range dependence”, *Fractals*, vol. 19 (2011), 249-258.
- Chunsheng Ma** “Covariance matrices for second-order vector random fields in space and time”, *IEEE Transactions on Signal Processing*, vol. 59 (2011), 2160-2168.
- Chunsheng Ma** “A class of variogram matrices for vector random fields with second-order increments”, *Mathematical Geosciences*, vol. 43 (2011), 229-242.
- Chunsheng Ma** (with J. Du) “Spherically invariant vector random fields in space and time”, *IEEE Transactions on Signal Processing*, vol. 59 (2011), 5921-5929.
- Chunsheng Ma** (with J. Robinson) “Lot acceptance and compliance testing based on the sample mean and minimum/maximum”, *Journal of Statistical Planning and Inference*, vol. 141 (2011), 2440-2448.
- Holger Meyer** (with T. S. Nigmanov) “Forward neutron production at the Fermilab Main Injector”, *Phys. Rev.*, D.83, 012002.

- Hari Mukerjee** (with G. Malla) “On testing order restricted mean residual life functions”, J. Statistical Research, 45 (2011), 77-86.
- Hari Mukerjee** “Convergence rates of an improved isotonic regression estimator”, Nonparametric Statistical Methods and Related Topics, J. Jiang, G. G. Roussas and F. J. Samaniego Eds., World Scientific, New Jersey, 413-422.
- Phillip E. Parker** (with L. Del Riego) “General Connections, Exponential Maps, and Second-order Differential Equations”, Differ. Geom. Dyn. Syst., 13 (2011), 72--90.
- Nick Solomey** (with T.S. Nigmanov) “Forward Neutron Production at the Fermilab Main Injector”, Phys. Rev. D83 12002, 2011.
- Nick Solomey** (with E. Abouzaid) “Precise Measurements of Direct CP Violation, CPT Symmetry, and Other Parameters in the Neutral Kaon System”, Phys. Rev. D83 92001, 2011.
- Nick Solomey** “Measurement of the charged kaon mass”, Nucl. Phys. B, v210-211, 185, 2011.
- Nick Solomey** (with E. Abouzaid) “Search for the Rare Decays  $K_L \rightarrow \pi^0 \pi^0 \mu^+ \mu^-$  and  $K_L \rightarrow \pi^0 \pi^0 X^0 \rightarrow \pi^0 \pi^0 \mu^+ \mu^-$ ”, Phys. Rev. Lett. 107, 201803, 2011.

#### 4. Book Publications

Author	Title
Nick Solomey	(with Marco Bozzo, Patrizia Cenci, 2010 Giuseppina Anzivino, Maurizio Biasini, Claudia Cecchi, Janis McKenna, Aniello Nappi, Monica Pepe) “Beauty, charm and hyperons in hadronic interactions”, Proceedings, 9th International Conference, BEACH 2010, Perugia, Italy, June 21-26, Nucl. Phys. B, v210-211, 2011.

## Published Conference Proceedings

Author	Title
<b>Elizabeth Behrman</b>	“Dynamic learning of pairwise and three-way entanglement”, Proceedings of the Third World Congress on Nature and Biologically Inspired Computing (NaBIC 2011) Salamanca, Spain, October 19-21, 2011, published on cd, ISBN: 978-1-4577-1123-7 (Institute of Electrical and Electronics Engineers, CFP1195H-CDR, 2011).
<b>Dharam V. Chopra</b>	(with Richard Low) “Balanced Arrays and Fractional Factorial Designs”, Proceedings of the 58th ISI World Statistics Congress, Dublin (Ireland), August 2011.
<b>Hussein H Hamdeh</b>	“Compositional Dependence of Magnetostrictive Properties of Cobalt Ferrote”, AIP Conference Proceedings 1347 (2011), 293-296.
<b>Chunsheng Ma</b>	“Logistic vector random fields with logistic direct and cross covariances”, International Conference on Advances in Probability and Statistics -- Theory and Applications: A celebration of N. Balakrishnan's 30 Years of Contributions to Statistics, Hong Kong, China, Dec. 28-31, 2011.

## Formal Papers Delivered at Professional Meetings

Author	Title
<b>Elizabeth Behrman</b>	“Quantum neural networks and the problem of consciousness”, Inaugural workshop of the Centre for Consciousness Studies, Deemed University, Dayalbagh, Agra, India, October 1-2, 2011.
<b>Elizabeth Behrman</b>	“Dynamic learning of pairwise and three-way entanglement”, Third World Congress on Nature and Biologically Inspired Computing (NaBIC 2011), Salamanca, Spain, October 19-21, 2011.
<b>Dharam V. Chopra</b>	(with R.M. Low and R. Dios) “Some New Results on the maximum number of constraints for some balanced arrays”, Forty-Second Southeast International Conference on Combinatorics, Graph Theory and Computing, Boca Raton, FL, March 07-11, 2011.
<b>Dharam V. Chopra</b>	(with Richard Low) “Balanced Arrays and Fractional Factorial Designs”, 58th Meetings of International Statistical Institute, Dublin, Ireland, August 21-27, 2011.
<b>Dharam V. Chopra</b>	(with R.M. Low and R. Dios) “Necessary Existence Conditions for Some Bi-Level Balanced Arrays”, 25th Mid-West Conference on Combinatorics, Cryptography, and Computing, Las Vegas, Nevada, October 20-21, 2011.

- Thomas K. DeLillo** (with E. Kropf) “Numerical Computation of the Schwarz-Christoffel Transformation for Multiply Connected Domains”, Kent State, 4/20/11.
- Thomas K. DeLillo** (with E. Kropf) “Numerical Computation of the Schwarz-Christoffel Transformation for Multiply Connected Domains”, SUNY Stony Brook Math Dept, 4/26/11.
- Thomas K. DeLillo** (with E. Kropf) “Overview of Fornberg-like methods for numerical conformal mapping”, SUNY Stony Brook Computer Sci., 4/28/11.
- Thomas K. DeLillo** (with E. Kropf) “Numerical Computation of the Schwarz-Christoffel Transformation for Multiply Connected Domains”, CCAAT 2011 meeting in honor of Nick Papamichael, Protaras, Cyprus, 6/6/11.
- Thomas K. DeLillo** (with E. Kropf) “Fornberg-like method for the numerical conformal mapping of bounded multiply connected domains”, ICIAM 2011, Vancouver, BC, Canada, 7/20/11.
- Thomas K. DeLillo** (with A. Elcrat, E. Kropf, and D. Stewart) “Regularization methods applied to an inverse problem in gravimetry in two dimensions”, ICIAM 2011, Vancouver, BC, Canada, 7/18/11-7/22/11.
- Alan Elcrat** “Steady vortices with general profile functions”, ICIAM, Vancouver BC, July 2011.
- Hussein H Hamdeh** (with M.S. Shongwe, Q.A.-N. Al-Kamali, F. Al-Mjeni, I. Al-Omari, H. Adams, M.J. Morris, and M. Mikuriya) “Curiosities of a Unique Hydrazono-Based Ferric Spin-Crossover system”, ICAME 2011, Kobe, Japan, September 2011.
- Xiaomi Hu** “An algorithm for multivariate isotonic regression”, International Indian Statistical Association (IISA) Conference on Probability, Statistics, and Data Analysis, Raleigh, NC, April 22, 2011.
- William Ingle** “Stability Estimates and Explicit Formulas for the Inverse Problem of Determining the Boundary Condition from Discrete Data”, GRASP, Wichita State University.
- Victor Isakov** “Carleman type estimates for dynamical systems of elasticity”, International Workshop Modeling and Control of Nonlinear Evolution Equations, Trieste, Italy, May 2011.
- Victor Isakov** (with E. Kropf, D. Stewart) “Two numerical methods on inverse gravimetry in the plane”, Applied Inverse Problems Conference AIP 2011, College Station, TX, May 24-27, 2011.
- Victor Isakov** “The inverse doping profile problem”, International Conference Interfaces and discontinuities in Solids, Liquids, and Crystals, Gargnano, Italy, June 2011.
- Victor Isakov** “Some Numerical Methods for Gravimetric Prospecting”, Conference on Mathematical Geophysics IAMG-2011, Salzburg, Austria, September 2011.

- Thalia D. Jeffres** (with Rafe Mazzeo and Yanir Rubenstein) “Kahler-Einstein Metrics with Edge Singularities”, Duke University Geometry and Topology Seminar, October 2011.
- Thalia D. Jeffres** (with Rafe Mazzeo and Yanir Rubenstein) “Kahler-Einstein Metrics with Edge Singularities”, CUNY Graduate Center, Geometry Seminar, December 2011.

### Book Reviews Published in Professional Journals and Abstracts

Author	Title
<b>Dharam V. Chopra</b>	“Numbers rule your world: the hidden influence of probability and statistics on everything you do”, Kaiser Fung, McGraw-Hill, (2010), Choice, Vol.48(#1), 2010, p.135.
<b>Dharam V. Chopra</b>	“Explorations in Monte Carlo methods”, Ronald W.Shonkwiler and Franklin Mendivil, Springer-Verlag (2009),Choice, Vol.47(#7), 2010, p.1325.
<b>Dharam V. Chopra</b>	“Geostatistics explained: an introductory guide for earth sciences”, Steve McKillup and Melinda Darby, Dyar.Cambridge, 2010, Choice, Vol.48(#2), 2010, p.334.
<b>Dharam V. Chopra</b>	“Statistical distributions”, Catherine Forbes, 4th ed., Wiley, 2011, p.438.