

Publications for 2012

Refereed Article Publications

Author	Title
Abdelhamid Albaid	“Higgs boson Mass in GMSB with Messenger-Matter mixing,” Nucl. Phys. Proc. Suppl. (2012).
Abdelhamid Albaid	“Flavor Violation in a Minimal $SO(10) \times A_4$ SUSY GUT, Int. J. Mod. Phys. A, Vol. 27 (2012).
Abdelhamid Albaid	“Higgs Boson of Mass 125 GeV in GMSB Models with Messenger-Matter Mixing,” arXiv:1207.1014 [hep-ph].
Arijit Banerjee Xiaomi Hu	“On the test for the homogeneity of a parameter matrix with some rows constrained by synchronized order restrictions,” Journal of Multivariate Analysis, 109 (2012), 64-70.
Dharam V. Chopra	(with R.M. Low and R. Dios) “Existence of Balanced Arrays and the positive semi-definiteness of the moment matrix,” The Journal of combinatorial mathematics and combinatorial computing, Vol. 82 (2012), pp.77-85.
Dharam V. Chopra	(with R.M. Low and R. Dios) “Further Contributions to balanced arrays of strength seven with applications,” Congressus Numerantium, Vol. 210 (2011), pp.73-79.
Alan Elcrat	(with L. Zannetti) “Models for inviscid wakes past a normal plate,” Preview Journal of Fluid Mechanics , Volume 708 (2012), pp 377-396.
Jason W. Ferguson	(with Falk Herwig, Don A. VandenBerg, Julio F. Navarro, and Bill Paxton) “From the Color-Magnitude Diagram of ω Centauri and (Super-)asymptotic Giant Branch Stellar Models to a Galactic Plane Passage Gas Purging Chemical Evolution Scenario,” Astrophysical Journal, 757 (2012), 132.
Jason W. Ferguson	(with Don A. VandenBerg, Peter A. Bergbusch, Aaron Dotter, Georges Michaud, Jacques Richer, and Charles R. Proffitt) “Models for Metal-poor Stars with Enhanced Abundances of C, N, O, Ne, Na, Mg, Si, S, Ca, and Ti, in Turn, at Constant Helium and Iron Abundances,” Astrophysical Journal, 755 (2012), 15.
Buma Fridman Daowei Ma	“Testing holomorphy on curves,” Israel Journal of Math., vol. 192 (2012), 535-540.
Buma Fridman Daowei Ma	(with T. Neelon) “Nonlinear convergence sets of divergent power series,” Annales Polonici Mathematici, 106 (2012), 193-198.

- Hussein H Hamdeh** (with Musa S. Shongwe, Usama A. Al-Zaabi, Faizah Al-Mjeni, Carla Schmiesing, Ekkhard Sinn, Imaddin A. Al-Omari, Dariusz Matoga, Harry Adams, Michael J. Morris, Arnold L. Rheingold, Eckhard Bill, and David J. Sellmyer) "Accessibility and Selective Stabilization of the Principal Spin States of Iron by Pyridyl versus Phenolic Ketimines: Modulation of the $6A_1 \leftrightarrow 2T_2$ Ground State Transformation of the $[FeN_4O_2]^+$ Chromophore," ACS/Inorganic Chemistry dx.doi.org/10.1021/ic300732r/Inorg.chem.2012,51,8241-8253.
- Hussein H Hamdeh** (with Muthu Kumaran Gnanamani, Gary Jacob, Wilson D. Shafer, and Burtron H. Davis) "Fischer-Tropsch Synthesis: A Mössbauer investigation of Iron containing catalysts for Hydrogenation of Carbon Dioxide," Catalysis Today, doi:10.1016/j.cattod.2012.02.059 (2012).
- Hussein H Hamdeh** (with M.A. Ahmed, N.Y. Mostafa, G.A. El-Shobaky, N.I. Aljuraide, and M.A.A. Mousa) "Structural Analysis of Zinc Ferrite nano Particles by means of X-ray Powder Diffraction and Mössbauer Spectroscopy," Int. J. Nanoparticles, Vol. 5, No. 1 (2012), 56-63.
- 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 Jurgen Hansohm) "A convergent algorithm for a generalized multivariate isotonic regression problem," Statistical Papers, 52 (2012) 107-115.
- Victor Isakov** (with J. Myers) "On the inverse doping profile problem, Inverse Problems and Imaging," 6 (2012), 465-486.
- Victor Isakov** (with A. Elcrat, E. Kropf, and D. Stewart) "A stability analysis for harmonic continuation," Inverse Problems, 28 (2012), 075016.
- Victor Isakov** "Carleman estimates for some anisotropic elasticity systems and applications," Evolution Equat. Control Theory, 1 (2012), 141-154.
- Thalia D. Jeffres** "Zeta Function on Surfaces of Revolution," Journal of Physics A, Vol. 45 (2012), No. 34.
- Kirk Lancaster** "Remarks on the behavior of nonparametric capillary surfaces at corners," Pacific Journal of Mathematics, Vol. 258, No. 2 (2012), 369-392.
- Tianshi Lu** "Zeta function on surfaces of revolution," J. Phys. A: Math. Theor., 45, (2012), 345201.
- Chunsheng Ma** "Stationary and isotropic vector random fields on spheres," Mathematical Geosciences, Vol. 44 (2012), 765-778.
- Chunsheng Ma** (with J. Du) "Variogram matrix functions for vector random fields with second-order increments," Mathematical Geosciences, vol. 44 (2012), 411-425.
- Chunsheng Ma** (with J. Du, N. Leonenko, and H. Shu) "Hyperbolic vector random fields with hyperbolic direct and cross covariance functions," Stochastic Analysis and Applications, vol. 30, 662-674.

Holger Meyer (with T. S. Nigmanov) “Forward neutron production at the Fermilab Main Injector”, Phys. Rev., D.83, 012002.

Hari Mukerjee (with E. Lorenzo) “Improved asymptotics of a decreasing mean residual life estimator,” Communications in Statistics: Theory and Methods, (in press).

Hari Mukerjee (with H. Elbarmi) “Peakedness and peakedness ordering,” Journal of Multivariate Analysis, 111 (2012), 222-233.

Nick Solomey “Forward Neutron Production at the Fermilab Main Injector,” T.S. Nigmanov et al., Phys. Rev. D83 (2011), 12002.

Nick Solomey (with E. Abouzaid) “Precise Measurements of Direct CP Violation,” CPT Symmetry and Other Parameters in the Neutral Kaon System, Phys. Rev. D83 (2011), 92001.

Nick Solomey “Measurement of the charged kaon mass,” Nucl. Phys. B v210-21 (2011), 185.

Nick Solomey (with E. Abouzaid) “Search for the Rare Decays $K_L \rightarrow \pi^0 \pi^0 \mu^{\pm} \mu^{\mp}$ and $K_L \rightarrow \pi^0 \pi^0 X^0 \rightarrow \pi^0 \pi^0 \mu^{\pm} \mu^{\mp}$ ”, Phys. Rev. Lett. 107 (2011), 201803.

Published Conference Proceedings

Author	Title
Abdelhamid Albaid	“Higgs boson Mass in GMSB with Messenger-Matter mixing,” Nucl. Phys. Proc. Suppl. (2012).
Chunsheng Ma	(with J. Du) “Recent advances in theory and methods of spatial statistics”, 2012 Joint Statistical Meetings, San Diego, July 28-August 2, 2012.
Chunsheng Ma	(with J. Du) “Covariance matrix structures for vector random fields in space and time,” ICSA 2012 Applied Statistics Symposium, Boston, June 23-26, 2012.
Chunsheng Ma	(with J. Du and S. S. Demel) “Compactly supported covariance matrix models with application to spatial covariance tapering,” American Mathematical Society 2012 Spring Central Section Meeting #1081, University of Kansas, Lawrence, Kansas, March 30 - April 1, 2012.
Holger Meyer	(with M. Bozzo) “BEACH2012 Proceedings,” submitted for publication as Nucl. Phys. Proc. Suppl.

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

Formal Papers Delivered at Professional Meetings

Author	Title
Elizabeth Behrman	(with J.E. Steck) “Experimental entanglement estimation for a general unknown input state of a multiqubit system,” March Meeting of the American Physical Society, Boston, MA, March 2012.
Alexander Bukhgeym	“Inverse Problems and Integral Geometry,” Inverse and Ill-Posed Problems of Mathematical Physics, Novosibirsk, Russia, August 5-12, 2012.
Alexander Bukhgeym	“Inverse Scattering Problem,” Theory and Computational Methods for Inverse and Ill-Posed Problems, Novosibirsk, Russia. August 5-15, 2012.
Alexander Bukhgeym	“Inverse Gravimetry Approach to Attenuated Tomography,” Urgent Problems of Computational Mathematics and Mathematical Modelling, Novosibirsk, Russia, June 12-15, 2012.
Dharam V. Chopra	(with R.M Low and R. Dios) “Some New Existence Conditions for some Bi-Level Balanced Arrays,” Forty-Third Southeast International Conference on Combinatorics, Graph Theory, and Computing, Boca Raton, FL, March 05-09, 2012.
Dharam V. Chopra	(with R.M. Low and R. Dios) “On Discrete Factorial Designs of Resolution Eight and Balanced Arrays,” 26th Mid-West Conference on Combinatorics, Cryptography, and Computing, Cedar City, UT, October 10-12, 2012.
Thomas K. DeLillo	“Numerical Computation of the Schwarz-Christoffel Transformation for Multiply Connected Domains--an Overview,” AMS meeting, University of Kansas, Lawrence, KS, March 31, 2012.
Alan Elcrat	“Hollow vortices,” APS\DFD meeting, San Diego, CA, November 18 2012.
Jason W. Ferguson	(with A. Dotter) “Evolution models without low temperature opacity tables?,” 42nd annual Mid-America Regional Astrophysics Conference, 14 April 2012.
Jason W. Ferguson	(with N. Thompson and A. Dotter) “Life-tracks and atmospheres of low mass Galactic globular cluster stars,” 42nd annual Mid-America Regional Astrophysics Conference, 14 April 2012.
Hussein H Hamdeh	“Mössbauer Studies of Ni-Ferrite powders Synthesized by the Microwave-Combustion Method,” ISIAME2012, Dalian, China, September 2-7, 2012.

Hussein H Hamdeh	“Fischer-Tropsch Synthesis: Effect of Pretreatment Conditions on Activity and Selectivity of Fe Catalysts,” Synfuel 2012, Munich, Germany, June 29-30, 2012.
Xiaomi Hu	“Method selection for computing A-basis and B-basis,” IMS/ASA Spring Research Conference 2012: Enabling the Interface Between Statistics and Engineering, Harvard University, Cambridge MA, June 13, 2012.
Victor Isakov	“Increasing Stability in the continuation,” Computational Methods in Inverse Problems, University of Muenchen, Germany, March 2012.
Victor Isakov	“Increasing Stability in the continuation,” PDE's, Inverse Problems, and Control Theory, Bologna, Italy, July 2012.
Victor Isakov	“On the inverse doping profile problem,” International Conference on Applied Analysis and Math. Biology, University of Delaware, August 2012.
Victor Isakov	“Innovative Methods for Gravimetric and Electromagnetic Prospecting,” NARP Symposium of National Geospatial Agency, Washington, DC, August 2012.
Thalia D. Jeffres	(with Rafe Mazzeo and Yanir Rubenstein) “Kähler-Einstein Metrics with Edge Singularities,” Baylor University, September 6, 2012.
Thalia D. Jeffres	(with Klaus Kirsten and Tianshi Lu) “Zeta Function on Surfaces of Revolution, AMS Special Session, Tucson meeting, October 2012.
Kirk Lancaster	“Boundary Behavior of PMC Surfaces: The Concus-Finn Conjecture,” Southeast Geometry Seminar, Atlanta, GA, April 29, 2012.
Kirk Lancaster	“Boundary behavior of PMC surfaces: the Concus-Finn Conjecture,” Workshop on Geometry of Interfaces and Capillarity, Granada, Spain, June 25-27, 2012.
Holger Meyer	“Status report on CDAS for the RDA,” Auger US-Analysis meeting, Wichita, KS, February 2012.

Book Reviews Published in Professional Journals and Abstracts

Author	Title
Alexander Bukhgeym	“Inverse Gravimetry Approach to Attenuated Tomography,” Urgent Problems of Computational Mathematics and Mathematical Modeling, Novosibirsk, 2012.
Dharam V. Chopra	“The R Primer,” Claus Thorn Ekstrom., CRC Press, Choice, Vol.49(#8), 2012, 1484.
Dharam V. Chopra	“Discrete Mathematics,” Jean Gallier, Springer, Choice, Vol.48(#11), 2012, 2137-2138.

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“Performance modeling of communication networks with Markov Chains,”
Morgan and Claypool, Choice, Vol.48(#5), 2011, 941.