

# Publications for 2009

## Refereed Article Publications

<b>Author</b>	<b>Title</b>
<b>Dharam V. Chopra</b>	(with R.M. Low and R. Dios) “Strength six orthogonal arrays and their nonexistence”, The Journal of Combinatorial Mathematics and Combinatorial Computing, Vol.70 (2009) pp.41-
<b>Dharam V. Chopra</b>	(with Richard M. Low) “Contributions to balanced arrays of strength t with applications”, Frontiers of Applied and Computational Mathematics, World Scientific Pub.Co.(New
<b>Dharam V. Chopra</b>	(with S.M. Lee and Hsin-Hao Su) “On edge-balance index sets of fans and broken fans.Congressus Numerantium”, Vol. 196 (2009) pp.183-202.
<b>Alan Elcrat</b>	“Floating drops and functions of bounded variation”, Complex Anal. Oper. Theory, published online July 25, 2009, print pending. DOI 10.1007/s11785-009-0032-2
<b>Xiaomi Hu</b>	“P-values of a test on homogeneous means in a multivariate isotonic regression”, Statistics and Probability Letters, 79 (19) 2005-1011.
<b>Victor Isakov</b>	“On identification of the doping profile in semiconductors”, Contemp. Math. AMS, 494 (2009) 123-137.
<b>Victor Isakov</b>	(with N. Kim) “Global uniqueness and Lipschitz stability of residual stress from one boundary measurement”, ESAIM Proc., 26 (2009) 45-54.
<b>Victor Isakov</b>	(with N. Kim) “Carleman estimates with second large parameter for second order operators”, Some Application of Sobolev Spaces to PDEs. Ed. V. Isakov, Intern. Math.
<b>Victor Isakov</b>	(with O. Imanuvilov and M. Yamamoto) “New realization of the pseudoconvexity and its application to an inverse problem”, Appl. Anal., 88 (2009) 637-652.
<b>Victor Isakov</b>	“Inverse Obstacle Problems”, Inverse Problems, 25 (2009) 123002 (18pp.).
<b>Thalia D. Jeffres</b>	“Gauss Curvature Flow on Surfaces of Revolution”, Advances in Geometry, no. 2 (2009) 189-197.
<b>Tianshi Lu</b>	“Charging and ExB Rotation of Ablation Clouds Surrounding Refueling Pellets in Hot Fusion Plasmas”, Phys. Plasmas, 16 (2009) 060705.
<b>Chunsheng Ma</b>	“Intrinsically stationary variograms in space and time”, Theory of Probability and Its Applications, vol. 53, 145-155.
<b>Chunsheng Ma</b>	“Construction of non-Gaussian random fields with any given correlation structure”, Journal of Statistical Planning and Inference, vol. 139, 780-787.

**Kenneth G. Miller** (with Bengt Fornberg, Natasha Flyer and B.C. Low) “Magnetic relaxation in the solar corona”, *The Astrophysical Journal*, 690 (2009) 720-733.

**Hari Mukerjee** (with H. El Barmi) “Peakedness and peakedness ordering in symmetric distributions”, *J. Multivariate Analysis*, 100 (2009) 594-603.

**Phillip E. Parker** (with L.A. Cordero) “Isometry Groups of Pseudo Riemannian 2-step Nilpotent Lie Groups”, *Houston J. Math.*, 35 (2009) 49-72.

**Christian Wolf**  
**Jacie Kaufmann** “Natural invariant measures, divergence points and dimension in one-dimensional holomorphic dynamics”, *Ergodic Theory and Dynamical Systems*, 29 (2009) 1235-1255.

## Book Publications

Author	Title
Alan Elcrat	“Mathematical Theory of Electromagnetism”, SIMAI e-Lecture Notes, vol 2, 2009 DOI: 10.1685/SELN09001.
Victor Isakov	“Sobolev Spaces in Mathematics, III. Appl. in Math. Physics”, Intern. Math. Ser., Springer-Verlag, 2009, 336 pp.

## Published Conference Proceedings

Author	Title
Alan Elcrat	“Steady vortex flows past a cylinder or a sphere”, FACM, 2009.
Chunsheng Ma	“Multivariate random fields in space-time”, The 2nd IMS-China Conference on Statistics and Probability, July 3-6, 2009, Weihai, China.
Chunsheng Ma	“Isotropic geostatistical models”, 1st International Conference on the Interface between Statistics and Engineering, July 13-15, 2009, Beijing, China.

## Formal Papers Delivered at Professional Meetings

<b>Author</b>	<b>Title</b>
<b>Alexander Bukhgeym</b>	“Inverse Scattering”, Mini-Symposium in PDE, Osaka, Japan, September 2009.
<b>Alexander Bukhgeym</b>	(with A.A. Bukhgeim) “Recovering a potential from Cauchy data in two-dimensional case”, Mathematics in Applications All-Russian Conference in honor of Professor S.K. Godunov,
<b>Alexander Bukhgeym</b>	“Inverse Scattering”, International Conference Theory and Computational Methods for Inverse and Ill-posed Problems, Novosibirsk, Russia, August 2009.
<b>Alexander Bukhgeym</b>	“Carleman formula for elliptic equations with variable coefficients”, Numerical and Applied Analysis Seminar, Kyoto, Japan, October 2009.
<b>Dharam V. Chopra</b>	(with R.M. Low and R. Dios) “Some inequalities on the existence of some balanced arrays”, Fourtieth Southeast International Conference on Combinatorics, Graph Theory, and
<b>Dharam V. Chopra</b>	(with S.M. Lee and H.H. Su) “On edge-balance index sets of fans and broken-fans”, Fourtieth SE International Conference on Combinatorics, Graph Theory, and Computing,
<b>Dharam V. Chopra</b>	(with R.M. Low and R. Dios) “Some New results on the existence of balanced arrays”, Twenty Third Mid-West Conference on Combinatorics, Cryptography, and Computing,
<b>Alan Elcrat</b>	“Traveling vortex pairs”, Biennial Conference on Numerical Analysis, Strathclyde, Scotland, June 2009.
<b>Alan Elcrat</b>	“Traveling vortex pairs”, APS Division of Fluid Dynamics, Minneapolis, Minnesota, November 22, 2009.
<b>Xiaomi Hu</b>	“A test of homogeneity versus isotonicity for parameter matrix in a multivariate regression model and its p-values”, The first Asia Pacific Rim Meeting of the Institute of Mathematical
<b>Victor Isakov</b>	“Increasing stability in continuation and inverse problems”, Workshop Electromagnetic Inverse Problems, Manchester, England, June 2009.
<b>Victor Isakov</b>	“Increasing stability in inverse problems”, Chemnitz-RICAM Symposium on Inverse Problems, Linz, Austria, July 2009.
<b>Victor Isakov</b>	“Innovative methods of interpretation of gravimetric and magnetometric data”, NAPR Symposium of National Geospatial Agency, Washington, DC, September 2009.
<b>Thalia D. Jeffres</b>	“Conformal Deformations of Singular Metrics to Constant Scalar Curvature: The Negative Curvature Case”, Special Session in Formations of Singularities in Geometric Flows, AMS
<b>Thalia D. Jeffres</b>	“Vertical Blow-Ups and Applications to Capillarity”, Seminar, UC Santa Barbara, February, 2009.

<b>Zhiren Jin</b>	“Existence of solutions for the prescribed mean curvature equation on unbounded domains”, Special session on Differential Equations, 2009 AMS-MAA Joint Mathematics Meeting,
<b>Hari Mukerjee</b>	“Inferences about an NBUE distribution under censoring”, WNAR/IMS Western Regional Meeting, Portland, OR, June 2009.
<b>Christian Wolf</b>	“Variation of topological pressure: From one- to two dimensional holomorphic dynamics”, Dynamical Systems Conference, University of North Texas,, Denton, TX, May 2009.
<b>Christian Wolf</b>	“Dependence of topological pressure on parameters”, Spring Topology and Dynamics Conference, University of Florida, Gainesville, FL, March 2009.

### Book Reviews Published in Professional Journals and Abstracts

<b>Author</b>	<b>Title</b>
<b>Alexander Bukhgeym</b>	(with A.A. Bukhgeim) “Recovering a potential from Cauchy data in two-dimensional case”, Abstracts of All-Russian Conference Mathematics in Applications, Novosibirsk (2009): 123.
<b>Alexander Bukhgeym</b>	(with E.V.Arbusov) “Carleman formula for elliptic equations with variable coefficients”, Abstracts of International Conference Theory and Computational Methods for Inverse and
<b>Dharam V. Chopra</b>	“Probability not: Future prediction using probability and statistical inference” by L.N.Dworsky, Choice 46 (#4), 2008, pp.732.
<b>Dharam V. Chopra</b>	“Introduction to Bayesian Statistics”, 2nd edition, by William M. Bolstad, Choice 45 (#8), 2008, p.1373.
<b>Dharam V. Chopra</b>	“Contemporary Bayesian and frequent statistical research methods for natural resource scientists”, by Howard Stauffer, Wiley Interscience, Choice 45 (#9), 2008, P.1578.
<b>Dharam V. Chopra</b>	“Linear Models in statistics”, by Alvin C.Rencher and G.Schaalje, Wiley Interscience, Choice 45 (12), 2008, p.2195.