

Publications for 2008

Refereed Article Publications

Author	Title
Alexandre Boukhgueim	“Recovering a potential from Cauchy data in the two-dimensional case”, Journal of Inverse and Ill-Posed problems, 16(2008): 19-33.
Dharam Chopra	(with R.M Low and R. Dios), “On the maximum number of constraints for some balanced arrays”, Congressus Numerantium, 190(2008): 5-11.
Dharam Chopra	(with M. Bsharat and G.P. Mehta), “Some new results on balanced arrays of strength five”, The Journal of Combinatorial Mathematics and Combinatorial Computing, 66 (2008):59-64.
Dharam Chopra	“Contributions of Statistics to Modern Progress”, Choice, Vol.45(2008): 1097-1107.
Thomas DeLillo Alan Elcrat	(with T. A. Driscoll and J. A. Pfaltzgraff), “Radial and circular slit maps of unbounded multiply connected circle domains”, Proceedings of the Royal Society, Series A, 464 (2008): 1719-1737.
Alan Elcrat	“Radial and circular slit maps of unbounded multiply connected circle domains”, Proc. R. Soc. A., 464(2008): 1719-1737.
Alan Elcrat Kenneth Miller	(with Bengt Fornberg), “Steady axisymmetric vortex flows with swirl and shear”, Journal of Fluid Mechanics, 613(2008): 395-410.
Xiaomi Hu	(with Jugen Hanshom), “Merge and chop in the computation for isotonic regressions,”, Journal of Statistical Planning and Inference, 138(2008): 3099-3106.
Xiaomi Hu	“A three-condition characterization of the Moore-Penrose generalized inverse”, The American Statistician, 62(3): 216-218.
Victor Isakov	“On uniqueness of domains and general transmission conditions in inverse scattering”, Comm. Math. Phys., 280(2008): 843-858.
Victor Isakov	“On uniqueness of obstacles and boundary conditions from the dynamical data”, Inv. Probl. Imag. ,2(2008):151-165.
Victor Isakov	"On inverse problems in secondary oil recovery",Europ. J. Appl. Math., 19 (2008), 459-478.
Victor Isakov	(with N. Kim), “Carleman estimates with two large parameters for second order operators and applications to elasticity with residual stress”, Applicationes Mathematicae, 35(2008): 447-465.
Thalia Jeffres Kirk Lancaster	“Vertical Blow Ups of Capillary Surfaces in , Part II: Nonconvex Corners”, Electron. J. Diff. Eqns., 60(2008): 1-25.
Zhiren Jin	“A lower bound for principal eigenvalues in parabola shaped regions”, Proceedings of the Royal Society of Edinburgh, 138A(2008): 787-799.
Zhiren Jin	“Growth rate estimates and existence of solutions for the prescribed mean curvature equation on unbounded domains”, Electronic Journal of Differential Equations, 24(2008): 1-15.
Kirk Lancaster	(with Maria Athanassenas), “CMC capillary surfaces at reentrant corners”, Pacific J. Math. 234 (2008), no. 2: 201--228.
Tianshi Lu	“A Numerical Algorithm for Magnetohydrodynamics of Ablated Materials”, J. Nanosci. Nanotechnol., 8(2008): 3674-3685.

Tianshi Lu	“Dynamic Phase Boundaries for Compressible Fluids”, SIAM J. Sci. Comput., 30(2008): 895-915.
Tianshi Lu	“Simulation of pellet ablation for tokamak fuelling with ITAPS front tracking”, Journal of Physics: Conf. Series 125(2008): 012081.
Chunsheng Ma	“Rational covariance functions for nonstationary random fields”, IEEE Transactions on Information Theory, vol. 54: 895-897.
Chunsheng Ma	“Recent developments on the construction of spatio 2Dtemporal covariance models”, Stochastic Environmental Research and Risk Assessment, vol. 22 (Supplement 1): S39-S47.
Chunsheng Ma	(with Z. Hu and J. Robinson), “Empirical saddlepoint approximations of the Studentized mean under stratified random sampling”, Statistics and Probability Letters, vol. 78(2008): 396-401.
Hari Mukerjee	(with H. El Barmi), “Peakedness and peakedness ordering in symmetric distributions”, J. Multivariate Analysis (accepted for publication).
Hari Mukerjee	(with H. El Barmi and S.Kochar), “Order restricted inference for comparing the cumulative incidence of a competing risk over several populations”, IMS Collections, Vol I(2008): 50-61.
Phillip Parker	(with L.A. Cordero), “Lattices and Periodic Geodesics in pseudoRiemannian 2-step Nilpotent Lie Groups”, Int. J. Geom. Methods Mod. Phys., 5(2008): 79-99.
John Robertson	“Basic dynamical stability results for”, Ergodic Theory and Dynamical Systems, 28(2008): 947-977.
Ziqi Sun	“Inverse boundary value problems for elliptic equations”, Advances in Mathematics and Its Applications, USTC, (2008): 149-171.
Christian Wolf	(with M. Urbanski), “Ergodic theory of parabolic horseshoes”, Comm. Math. Phys., 281 (2008), no. 3: 711-751.
Christian Wolf	(with K. Gelfert), “Topological pressure via saddle points”, Trans. Amer. Math. Soc., 360 (2008), no. 1: 545-561.

Reports

Author	Title
Alexandre Boukhgueim	“Inverse Scattering Problems”, Sobolev Institute of Mathematics, Novosibirsk, January 2008.
Alexandre Boukhgueim	“Inverse Problems”, Wichita State University, Fall 2008.

Published Conference Proceedings

Author	Title
Alexandre Boukhgueim	“The Carleman formula and recovering the refractive index of the two-dimensional Helmholtz equation”, Proceedings of the International Conference on Mathematical Methods in Geophysics “MMG-2008” (2008): 1-6.
Alan Elcrat Kenneth Miller	(with Bengt Fornberg), “Steady vortex flows past a cylinder or sphere”, Proceedings of FACM (Frontiers in Applied and Computational Mathematics) Conference, 2008, NJIT, Newark, NJ; edited by Denis Blackmore, Amitabha Bose and Peter Petropoulos.

- Alan Elcrat** Steady vortex flows past a cylinder or a sphere”, FACM, 2009.
- Chunsheng Ma** “Why isotropy is so popular in spatial statistics?”, IMS-China International Conference on Statistics and Probability 2008, June 11-13, 2008, Hangzhou, China.

Formal Papers Delivered at Professional Meetings

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|-----------------------|---|
| Andrew Acker | “Operator methods for double-free-boundary fluid problems in annular domains”, AIMS International Conference, Arlington, Texas, May 17-22, 2008. |
| Dharam Chopra | (with R.M. Low and R. Dios), “On some Combinatorial arrays”, Thirty-Ninth Southeast International Conference on Combinatorics, Graph Theory, and Computing, Boca Raton, FL, March 2008. |
| Dharam Chopra | (with R. Dios, S.M. Lee, and H.H. Su), “On edge-balance index sets of wheels”, Twenty-Second Midwest Conference on Combinatorics, Cryptography, and Computing , Las Vegas, NV, October 2008. |
| Dharam Chopra | (with R.M. Low), “Some New results on the existence of balanced arrays”, Twenty-Second Mid-West Conference on Combinatorics, Cryptography, and Computing, Las Vegas, NV, October 2008. |
| Dharam Chopra | “On the existence and applications of balanced arrays”, Fifth Conference on the Frontiers in Applied and Computational Mathematics, Newark, NJ, May 2008. |
| Thomas DeLillo | “Conformal mapping of multiply connected domains: An overview of some recent methods”, SIAM Annual meeting, San Diego, CA, 7/9/08. |
| Thomas DeLillo | (with Everett Kropf), “A Fornberg-like method for the conformal mapping of bounded multiply connected regions”, Poster session at Widlund's 70th birthday meeting, Courant, NYC, 9/20/08. |
| Thomas DeLillo | “Slit maps, Green's functions, and Schwarz-Christoffel maps for multiply connected domains”, Contributed talk at Richard Varga 80th birthday meeting, Kent State University, OH, 10/18/08. |
| Xiaomi Hu | “Merge and chop in the computation for isotonic regressions”, ICISA (International Chinese Statistical Association) Applied Statistics Symposium, Piscataway, NJ, June 7, 2008. |
| Victor Isakov | “Inverse doping profile problem”, International Conference Imaging Microstructures, Inst. H. Poincare, Paris, France, June 2008. |
| Victor Isakov | “On increased stability of the continuation for partial differential equations”, Fifth World Congress of Nonlinear Analysis, Orlando, Florida, July 2008. |
| Victor Isakov | “Increased stability in the Cauchy problem for some partial differential equations”, International Conference Direct, Inverse and Control Problems for PDE's, Cortona, Italy, September 2008. |
| Victor Isakov | “On increasing stability in the Cauchy problem”, Inverse Problems and Their Applications, Shanghai, China, October 2008. |
| Victor Isakov | “On increasing stability of the continuation and in inverse problems for elliptic partial differential equations”, Amer. Math. Soc. Meeting, Huntsville, Alabama, October 2008. |
| Thalia Jeffres | “Vertical Blow-Ups and Applications to Capillarity”, SAGE Workshop, University of Texas at Austin, May 2008. |
| Kirk Lancaster | |

Thalia Jeffres Kirk Lancaster	“Capillarity in Containers with Corners”, SAGE Workshop, University of Texas at Austin, May 2008.
Thalia Jeffres	“Gauss Curvature Flow on Surface of Revolution”, Baylor University Departmental Colloquium, March 2008.
Hari Mukerjee	“Peakedness and peakedness ordering”, WNAR/IMS Western Regional Meeting, Davis, CA, June 2008.
Christian Wolf	“Hausdorff dimension of typical and non-typical orbits in one-dimensional holomorphic dynamics”, Differential Equations and Dynamical Systems Conference, Arlington, TX, May 2008.
Christian Wolf	“On the distribution of periodic orbits”, Dynamical Systems Conference, Goettingen, Germany, July 2008.

Book Reviews Published in Professional Journals and Abstracts

Author	Title
Dharam Chopra	“A second course in probability”, by S.Ross and E.A.Pekoz, Probability Bookstore, Choice 45(#5), 2008: 854-855.
Dharam Chopra	“A basic course in probability theory”, by R.Bhattacharya and E.Waymire, Springer-Verlag, Choice 45(7),(2008): 1195.
Dharam Chopra	“Probabilities: the little numbers that rule our lives”, Wiley Interscience, Choice 44(10),2007: 1790.
Dharam Chopra	“A modern experimental design”, Wiley Interscience, Choice 44(12), 2007: 2140.
Dharam Chopra	“Probability and stochastic processes”, by V.Krishnan, Wiley Interscience, Choice 44(5),2006: 866.
Dharam Chopra	“Mathematics of uncertainty: ideas, methods, application problems”, by H.W. Bandermer, Springer-Verlag, Choice 44(1),2006: 149.
Dharam Chopra	“Common errors in statistics (and how to avoid them)”, Wiley Interscience, Choice 44(2): 329.