

# Departmental List of Publications for the Year 2009

- [1] Jan Aarts, G. Brouwer, and Lex G. Oversteegen. Centerlines of regions in the sphere. *Topology Appl.*, 156(10):1776–1785, 2009.
- [2] Inmaculada B. Aban, Gary R. Cutter, and Nsoki Mavinga. Inferences and power analysis concerning two negative binomial distributions with an application to MRI lesion counts data. *Comput. Statist. Data Anal.*, 53(3):820–833, 2009.
- [3] Ali Al-Sharadqah and Nikolai Chernov. Error analysis for circle fitting algorithms. *Electron. J. Stat.*, 3:886–911, 2009.
- [4] Jeff Baker, Michael Loss, and Günter Stolz. Low energy properties of the random displacement model. *J. Funct. Anal.*, 256(8):2725–2740, 2009.
- [5] C. Bennewitz, B. M. Brown, and R. Weikard. Inverse spectral and scattering theory for the half-line left-definite Sturm-Liouville problem. *SIAM J. Math. Anal.*, 40(5):2105–2131, 2008/09.
- [6] Alexander Blokh and Jozef Bobok. Asymptotic behaviour of the entropy of interval maps. *J. Difference Equ. Appl.*, 15(1):1–11, 2009.
- [7] Alexander Blokh and Michał Misiurewicz. Local critical perturbations of unimodal maps. *Comm. Math. Phys.*, 289(2):765–776, 2009.
- [8] Alexander Blokh, Michał Misiurewicz, and Lex Oversteegen. Sets of constant distance from a compact set in 2-manifolds with a geodesic metric. *Proc. Amer. Math. Soc.*, 137(2):733–743, 2009.
- [9] Alexander Blokh and Lex Oversteegen. A fixed point theorem for branched covering maps of the plane. *Fund. Math.*, 206:77–111, 2009.
- [10] Alexander Blokh and Lex Oversteegen. The Julia sets of basic unicremer polynomials of arbitrary degree. *Conform. Geom. Dyn.*, 13:139–159, 2009.
- [11] Alexander Blokh and Lex Oversteegen. Wandering gaps for weakly hyperbolic polynomials. In *Complex dynamics*, pages 139–168. A K Peters, Wellesley, MA, 2009.
- [12] B. Malcolm Brown, Serguei Naboko, and Rudi Weikard. The inverse resonance problem for Hermite operators. *Constr. Approx.*, 30(2):155–174, 2009.
- [13] N. Chernov. Numerical studies of a two-dimensional Navier-Stokes system with new boundary conditions. *J. Stat. Phys.*, 135(4):751–761, 2009.
- [14] N. Chernov and D. Dolgopyat. Brownian Brownian motion. I. *Mem. Amer. Math. Soc.*, 198(927):viii+193, 2009.
- [15] N. Chernov and D. Dolgopyat. The Galton board: limit theorems and recurrence. *J. Amer. Math. Soc.*, 22(3):821–858, 2009.
- [16] Nikolai Chernov and Hong-Kun Zhang. On statistical properties of hyperbolic systems with singularities. *J. Stat. Phys.*, 136(4):615–642, 2009.
- [17] Clinton P. Curry. Recognizing indecomposable subcontinua of surfaces from their complements. *Topology Proc.*, 33:251–268, 2009.
- [18] Clinton P. Curry, John C. Mayer, Jonathan Meddaugh, and James T. Rogers, Jr. Any counterexample to Makienko’s conjecture is an indecomposable continuum. *Ergodic Theory Dynam. Systems*, 29(3):875–883, 2009.
- [19] D. I. Dolgopyat and N. I. Chernov. Anomalous current in periodic Lorentz gases with an infinite horizon. *Uspekhi Mat. Nauk*, 64(4(388)):73–124, 2009.
- [20] M. García-Huidobro, R. Manásevich, and J. R. Ward. Periodic solutions and asymptotic behavior in Liénard systems with  $p$ -Laplacian operators. *Differential Integral Equations*, 22(9-10):979–998, 2009.
- [21] Marta García-Huidobro, Raul Manásevich, and James R. Ward. Positive solutions for equations and systems with  $p$ -Laplace-like operators. *Adv. Differential Equations*, 14(5-6):401–432, 2009.
- [22] Pengfei Guan and Junfang Li. The quermassintegral inequalities for  $k$ -convex starshaped domains. *Adv. Math.*, 221(5):1725–1732, 2009.

- [23] Ch. Hainzl, M. Lewin, and J. P. Solovej. The thermodynamic limit of quantum coulomb systems: a new approach. In Gheorghe Nenciu Ingrid Beltita and Radu Purice, editors, *Mathematical results in quantum mechanics. Proceedings of the QMath10 conference*, pages 97–116. World Scientific, 2009.
- [24] Ch. Hainzl and R. Seiringer. A linear criterion for solutions of non-linear equations, with application to the BCS gap equation. *Contemp. Math.*, 500:101–104, 2009.
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