

Departmental List of Publications for the Year 2003

- [1] Péter Bálint, Nikolai Chernov, Domokos Szász, and Imre Péter Tóth. Geometry of multi-dimensional dispersing billiards. *Astérisque*, 286:xviii, 119–150, 2003. Geometric methods in dynamics. I.
- [2] A. M. Blokh. On graph-realizable sets of periods. *J. Difference Equ. Appl.*, 9(3-4):343–357, 2003. Dedicated to Professor Alexander N. Sharkovsky on the occasion of his 65th birthday.
- [3] Alexander Blokh and Michał Misiurewicz. Corrigendum to the paper: “Typical limit sets of critical points for smooth interval maps” [Ergodic Theory Dynam. Systems **20** (2000), no. 1, 15–45; MR1747032 (2001d:37041)]. *Ergodic Theory Dynam. Systems*, 23(2):661, 2003.
- [4] Alexander Blokh and Eric Teoh. How little is little enough? *Discrete Contin. Dyn. Syst.*, 9(4):969–978, 2003.
- [5] B. M. Brown, I. Knowles, and R. Weikard. On the inverse resonance problem. *J. London Math. Soc. (2)*, 68(2):383–401, 2003.
- [6] B. M. Brown, V. S. Samko, I. W. Knowles, and M. Marletta. Inverse spectral problem for the Sturm-Liouville equation. *Inverse Problems*, 19(1):235–252, 2003.
- [7] B. Malcolm Brown, Valentin S. Samko, Ian W. Knowles, and Marco Marletta. A numerical procedure for the inverse Sturm-Liouville operator. In *Factorization, singular operators and related problems (Funchal, 2002)*, pages 55–64. Kluwer Acad. Publ., Dordrecht, 2003.
- [8] James J. Buckley. *Fuzzy probabilities*, volume 115 of *Studies in Fuzziness and Soft Computing*. Physica-Verlag, Heidelberg, 2003. New approach and applications.
- [9] N. Chernov and G. Galperin. Search light in billiard tables. *Regul. Chaotic Dyn.*, 8(2):225–241, 2003.
- [10] Nikolai Chernov and Roberto Markarian. *Introduction to the ergodic theory of chaotic billiards*. Publicações Matemáticas do IMPA. [IMPA Mathematical Publications]. Instituto de Matemática Pura e Aplicada (IMPA), Rio de Janeiro, second edition, 2003. 24^o Colóquio Brasileiro de Matemática. [24th Brazilian Mathematics Colloquium].
- [11] Esfandiar Eslami and J. J. Buckley. Uncertain probabilities I: The discrete case. *Soft Computing*, 7(8):500–505, 2003.
- [12] Esfandiar Eslami, Hamid Shojaei, and J. J. Buckley. Filters in residuated algebras. *Southeast Asian Bull. Math.*, 27(3):429–438, 2003.
- [13] M. García-Huidobro, R. Manásevich, and J. R. Ward. A homotopy along p for systems with a vector p -Laplace operator. *Adv. Differential Equations*, 8(3):337–356, 2003.
- [14] S. Jitomirskaya, H. Schulz-Baldes, and G. Stolz. Delocalization in random polymer models. *Comm. Math. Phys.*, 233(1):27–48, 2003.
- [15] Yu. Karpeshina. Asymptotic formulas for eigenvalues and eigenfunctions of periodic magnetic Schrödinger operators. In *Waves in periodic and random media (South Hadley, MA, 2002)*, volume 339 of *Contemp. Math.*, pages 91–103. Amer. Math. Soc., Providence, RI, 2003.
- [16] Yulia Karpeshina, Gunter Stolz, Rudi Weikard, and Yanni Zeng, editors. *Advances in differential equations and mathematical physics*, volume 327 of *Contemporary Mathematics*, Providence, RI, 2003. American Mathematical Society.
- [17] Vladik Kreinovich, Luc Longpré, and James J. Buckley. Are there easy-to-check necessary and sufficient conditions for straightforward interval computations to be exact? In *Proceedings of the Validated Computing 2002 Conference (Toronto, ON)*, volume 9, pages 349–358, 2003.
- [18] Rafael Ortega and James Robert Ward, Jr. A semilinear elliptic system with vanishing nonlinearities. *Discrete Contin. Dyn. Syst.*, suppl.:688–693, 2003. Dynamical systems and differential equations (Wilmington, NC, 2002).
- [19] Lex G. Oversteegen and Janusz R. Prajs. On confluent graph-like compacta. *Fund. Math.*, 178(2):109–127, 2003.
- [20] Nándor Simányi. Proof of the Boltzmann-Sinai ergodic hypothesis for typical hard disk systems. *Invent. Math.*, 154(1):123–178, 2003.
- [21] Sumio Yamada. A dual monotonicity formula for harmonic mappings. *Calc. Var. Partial Differential Equations*, 18(2):181–188, 2003.