

Departmental List of Publications for the Year 2015

- [1] Houssam Abdul-Rahman and Günter Stolz. A uniform area law for the entanglement of eigenstates in the disordered XY chain. *J. Math. Phys.*, 56(12):121901, 25, 2015.
- [2] Alexander A. Balinsky, W. Desmond Evans, and Roger T. Lewis. *The analysis and geometry of Hardy's inequality*. Universitext. Springer, Cham, 2015.
- [3] Matthew Bledsoe and Rudi Weikard. The inverse resonance problem for left-definite Sturm-Liouville operators. *J. Math. Anal. Appl.*, 423(2):1753–1773, 2015.
- [4] Alexander M. Blokh. Pointwise-recurrent maps on uniquely arcwise connected locally arcwise connected spaces. *Proc. Amer. Math. Soc.*, 143(9):3985–4000, 2015.
- [5] Jacob Chapman and Günter Stolz. Localization for random block operators related to the XY spin chain. *Ann. Henri Poincaré*, 16(2):405–435, 2015.
- [6] David J. Cospser, Jeffrey K. Houghton, John C. Mayer, Luka Mernik, and Joseph W. Olson. Central strips of sibling leaves in laminations of the unit disk. *Topology Proc.*, 48:69–100, 2016.
- [7] B. Ebinger, N. Bouaynaya, R. Polikar, and R. Shterenberg. Constrained state estimation in particle filters. In *2015 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 4050–4054, April 2015.
- [8] Antwi-Fordjour K. Fadlallah, A. and M. Nkashama. Generalized spectrum of steklov-robin type problem for elliptic systems. *Applied Mathematics*, 6:421–429, 2015.
- [9] Michael A. Frölich, Paul Jung, and Shannon Starr. Target frequency analysis of functional mri data. *Int J Clin Biostat Biom*, 1(2), 2015.
- [10] Paul Jung and Greg Markowsky. Hölder continuity and occupation-time formulas for fBm self-intersection local time and its derivative. *J. Theoret. Probab.*, 28(1):299–312, 2015.
- [11] Kenichi Kanatani, Ali Al-Sharadqah, Nikolai Chernov, and Yasuyuki Sugaya. Hyper-renormalization: Non-minimization approach for geometric estimation. *Information and Media Technologies*, 10(1):71–87, 2015.
- [12] Na Li, Carmeliza Navasca, and Christina Glenn. Iterative methods for symmetric outer product tensor decomposition. *Electron. Trans. Numer. Anal.*, 44:124–139, 2015.
- [13] Tai-Ping Liu and Yanni Zeng. Shock waves in conservation laws with physical viscosity. *Mem. Amer. Math. Soc.*, 234(1105):vi+168, 2015.
- [14] N. Mavinga and M. N. Nkashama. Resonance problems for nonlinear elliptic equations with nonlinear boundary conditions. *J. Appl. Funct. Anal.*, 10(3-4):281–295, 2015.
- [15] Deonna N. Pompey and Carmeliza Navasca. Random projections for low multilinear rank tensors. In I. Hotz and T. Schultz, editors, *Visualization and Processing of Higher Order Descriptors for Multi-Valued Data*, Mathematics and Visualization. Springer International Publishing, 2015.

- [16] Nikita Selinger and Michael Yampolsky. Constructive geometrization of thurston maps. *C. R. Math. Rep. Acad. Sci. Canada*, 37(3):100–113, 2015.
- [17] Nikita Selinger and Michael Yampolsky. Constructive geometrization of Thurston maps and decidability of Thurston equivalence. *Arnold Math. J.*, 1(4):361–402, 2015.
- [18] Robert Sims and Günter Stolz. Many-body localization: Concepts and simple models. *Markov Processes And Related Fields*, 21(3):791–822, 2015.
- [19] Meg Walters and Shannon Starr. A note on mixed matrix moments for the complex Ginibre ensemble. *J. Math. Phys.*, 56(1):013301, 20, 2015.
- [20] X. Wang and C. Navasca. Adaptive low rank approximation for tensors. In *2015 IEEE International Conference on Computer Vision Workshop (ICCVW)*, pages 939–945, Dec 2015.
- [21] Yanni Zeng. Global existence theory for a general class of hyperbolic balance laws. *Bull. Inst. Math. Acad. Sin. (N.S.)*, 10(2):143–170, 2015.
- [22] Henghui Zou. Finite-time blow-up and blow-up rates for the Gierer-Meinhardt system. *Appl. Anal.*, 94(10):2110–2132, 2015.
- [23] Henghui Zou. On global existence for the Gierer-Meinhardt system. *Discrete Contin. Dyn. Syst.*, 35(1):583–591, 2015.