

Publications in the period 01.01.2015 - 31.12.2015

1. Irrgeher C., Kritzer P., Leobacher G. and Pillichshammer F.: Integration in Hermite space of analytic functions. In: *J. Complexity* (31), pp. 380-404, 2015. [arXiv:1403.5102](#).
2. Dick J., Hinrichs A. and Pillichshammer F.: Proof Techniques in Quasi-Monte Carlo Theory. In: *J. Complexity* (31), pp. 327-371, 2015. [arXiv:1403.7334](#).
3. Dick J. and Pillichshammer F.: The weighted star discrepancy of Korobov's p-sets. In: *Proc. Amer. Math. Soc.*, 143(12), pp. 5043-5057, 2015. [arXiv:1404.0114](#).
4. Dick J., Kritzer P., Leobacher G. and Pillichshammer F.: A reduced fast component-by-component construction of lattice points for integration in weighted spaces with fast decreasing weights. In: *J. Comput. Appl. Math.* 276. pp. 1-15, 2015. [arXiv: 1404.5497](#).
5. Larcher G.: On the star-discrepancy of sequences in the unit-interval. In: *J. Complexity*. (31), pp. 474-485, 2015. [arXiv:1407.2094](#).
6. Kritzer P. and Niederreiter H.: Propagation rules for (u,m,e,s)-nets and (u,e,s)-sequences. In: *J. Complexity* (31), pp. 457-473, 2015. [Pdf](#).
7. Irrgeher C. and Leobacher G.: High-dimensional integration on \mathbb{R}^d , weighted Hermite spaces, and orthogonal transforms. In: *Journal Complexity* (31), pp. 174-205, 2015. [arXiv:1409.6109](#).
8. Hofer R.: Generalized Hofer-Niederreiter sequences and their discrepancy from an (U,e,s)-point of view. In: *Journal Complexity* (31), pp. 260-276, 2015. [Pdf](#). [doi:10.1016/j.jco.2014.10.002](#)
9. Dick J., Kritzer P., Leobacher G. and Pillichshammer F.: Numerical integration in log-Korobov and log-Cosine spaces. In: *Numer. Algorithms*, 70(4), pp. 753-775, 2015. [arXiv:1411.2715](#).
10. Hinrichs A., Kritzing R. and Pillichshammer F.: Optimal order of L_p -discrepancy of digit shifted Hammersley point sets in dimension 2. In: *Unif. Distrib. Theory*, Vol. 10, pp. 115-133, 2015. [arXiv:1410.4315](#).
11. Leobacher G., Szölgyenyi M. and Thonhauser S.: On the Existence of Solutions of a Class of SDEs with Discontinuous Drift and Singular Diffusion. In: *Electronic Communications in Probability*, Vol. 20, Nr. 6, pp. 1-14, 2015. [arXiv:1311.6226](#).
12. Kritzer P. and Pillichshammer F.: Component-by-component construction of shifted Halton sequences. In: *Unif. Distrib. Theory* (10), Nr. 2, pp. 45-63, 2015. [arXiv:1501.07377](#).

13. Kritzinger R. and Laimer H.: A reduced fast component-by-component construction of lattice point sets with small weighted star discrepancy. In: *Unif. Distrib. Theory (10)*, Nr. 2, pp. 21-43, 2015. [arXiv:1501.07073](#).
14. Kritzinger R. and Pillichshammer F.: Lp-discrepancy of the symmetrized van der Corput sequence. In: *Arch. Math.*, 104(5), pp. 407-418, 2015. [arXiv:1501.02552](#).
15. Irrgeher C.: Tractability of Monte Carlo integration in Hermite spaces. In: *Uniform Distribution Theory*, 10(2), pp. 11-20, 2015. [arXiv:1502.01166](#).
16. Grabner P.J.: Poincaré functional equations, harmonic measures on Julia sets, and fractal zeta functions. In: *C. Bandt and M. Zähle, eds., Fractal Geometry and Stochastics V*, vol. 70, pp. 157-174, Birkhäuser Verlag, Basel, papers from the conference held in Tabarz, March 24--28, 2014, 2015. [pdf](#)
17. Leobacher G., Pillichshammer F. and Schell Th.: Construction algorithms for plane nets in base b. In: *Math. Pannon.* (25), Nr. 1, pp. 157 -168, 2014/2015. [arXiv:1506.03201](#).
18. Berkes I. and Tichy R.: Lacunary series and stable distributions, In: *Mathematical Statistics and Limit Theorems*, Festschrift für Paul Deheuvels, Springer Verlag, pp 7-19, 2015. doi:10.1007/978-3-319-12442-1_2
19. Iacò M.R., Paštéka M. and Tichy R.: Measure density for set decompositions and uniform distribution. In: *Rend. Circ. Mat. Palermo*, 64, pp. 323 – 339, 2015. doi: 10.1007/s12215-015-0202-1, [arXiv:1502.01611](#).
20. Iacò M.R., Thonhauser S. and Tichy R.: Distribution functions, extremal limits and optimal transport. In: *Indagationes Mathematicae*, 26 (5), pp. 823 - 841, 2015. [arXiv:1502.06839](#).
21. Larcher G. and Puchhammer F.: An improved bound for the star discrepancy of sequences in the unit interval. In: *Uniform Distribution Theory*, 10(2), pp. 1-14, 2015. [arXiv:1511.03869](#).
22. He J., Panario D, Wang Q. and Winterhof A.: Linear complexity profile and correlation measure of interleaved sequences. In: *Cryptography and Communications* 7, no.4, pp. 497-508, 2015. [Pdf](#).
23. Raz O., Roche-Newton O. and Sharir M.: Sets with few distinct distances do not have heavy lines. In: *Discrete Math.*, Vol. 338 (8), pp. 1484-1492, 2015. [arXiv:1410.1654](#).
24. Chen Z., Winterhof A.: Polynomial quotients: Interpolation, value sets and Waring's problem. In: *Acta Arithmetica*, (170), no.2, pp. 121-134, 2015. [arXiv:1402.1913](#).
25. Faure H., Kritzer P. and Pillichshammer F.: From van der Corput to modern constructions of sequences for quasi-Monte Carlo rules. In: *Indag. Math.*, 26(5), pp. 760-822, 2015. [arXiv:1506.03764](#).
26. Brauchart J., Dick J., Saff E. B., Sloan I. H., Wang Y. G. and Womersley, R. S.: Covering of spheres by spherical caps and worst-case error for equal weight

- cubature in Sobolev spaces. In: *Journal of mathematical analysis and applications*, 431(2), pp. 782 - 811, 2015. [arXiv:1407.8311](#).
27. Kreso D. and Tichy R.: Functional composition of polynomials: indecomposability, Diophantine equations and lacunary polynomials. In: *Grazer mathematische Berichte* 363, pp. 143-170, 2015. [arXiv:1503.05401](#).
 28. Deshouillers J., Drmota M. and Müllner C.: Automatic Sequences Generated by Synchronizing Automata Fulfill the Sarnak Conjecture. In: *Studia Mathematica*, 231(1), pp. 83-95, 2015. [Pdf](#).
 29. Spiegelhofer L.: Normality of the Thue-Morse sequence along Piatetski-Shapiro sequences. In: *Q. J. Math.*, 66(4), pp. 1127-1138, 2015. [arXiv:1511.01671](#).
 30. Barat G., Grabner, P. J., Hellekalek, P. and Liardet P. (1943--2014) In Memoriam. In: *Eur. Math. Soc. Newsl.*, 97, pp. 52-58, 2015.
 31. Mérai L.: Pseudorandomness of binary sequences derived from linear recursions. In: *Periodica Math. Hungar.*, Vol. 71, no.1, pp. 64-77, 2015. [Pdf](#).
 32. Mérai, L., Yayla O.: Improving results on the pseudorandomness of sequences generated via the additive order. In: *Discrete Math.*, Vol. 338, pp. 2020-2025, 2015. [Link](#).
 33. Brauchart J.S. and Grabner P.J.: Distributing many points on spheres: minimal energy and designs. In: *Journal Complexity*, (31), Issue 3, pp.293-326, 2015. doi:10.1016/j.jco.2015.02.003, [Pdf](#).
 34. Berkes I. and Tichy R.: On permutation-invariance of limit theorems. In: *Journal of Complexity*, 31 (3), pp 372-379, 2015. doi:10.1016/j.jco.2014.06.001. [Pdf](#).
 35. Roche-Newton O., Zhelezov D.: A bound on the multiplicative energy of a sum set and extremal sum-product problems. In: *Moscow Journal of Combinatorics and Number Theory*. 5, no.1-2, pp. 52-69, 2015. [arXiv:1410.1156](#).
 36. Roche-Newton O.: A short proof of a near-optimal cardinality estimate for the size of a product of a sum set. In: *31st International Symposium on Computational Geometry*, pp. 74--80, LIPIcs. Leibniz Int. Proc. Inform., 34, Schloss Dagstuhl. Leibniz-Zent. Inform., Wadern, 2015. [arXiv:1502.05560](#).
 37. Drmota M.: The discrepancy of generalized Van-der-Corput-Halton sequences. In: *Indagationes Math.* 26, Issue 5, pp.748-759, 2015. [Pdf](#).
 38. Kallus Y., Kusner W.: The local optimality of the double lattice packing. In: *Discrete and Computational Geometry*, pp. 1-23, 2015. [arXiv:1509.02241](#).
 39. Greinecker F.: On the 2-abelian complexity of Thue-Morse word. In: *Theoret. Comput. Sci.*, 593, pp. 88-105, 2015. [arXiv:1404.3906](#).
 40. Kreso D.: On common values of lacunary polynomials at integer points. In: *New York J. Math.* 21, pp. 987-1001, 2015. [Link](#).