Friedrich Pillichshammer

List of Publications by Year
in descending order

137 papers	1,815 citations	331538 21 h-index	434063 31 g-index
146 all docs	146 docs citations	146 times ranked	382 citing authors

#	Article	IF	Citations
1	Exact order of extreme L_p discrepancy of infinite sequences in arbitrary dimension. Archiv Der Mathematik, 2022, 118, 169-179.	0.3	2
2	A note on Korobov lattice rules for integration of analytic functions. Journal of Complexity, 2021, 63, 101524.	0.7	1
3	Extreme and periodic L_2 discrepancy of plane point sets. Acta Arithmetica, 2021, 199, 163-198.	0.2	5
4	Weighted integration over a hyperrectangle based on digital nets and sequences. Journal of Computational and Applied Mathematics, 2021, 393, 113509.	1.1	1
5	Secure pseudorandom bit generators and point sets with low star-discrepancy. Journal of Computational and Applied Mathematics, 2021, 396, 113601.	1.1	4
6	On the relation of the spectral test to isotropic discrepancy and L-approximation in Sobolev spaces. Journal of Complexity, 2021, 67, 101576.	0.7	0
7	Tractability of approximation in the weighted Korobov space in the worst-case setting — a complete picture. Journal of Complexity, 2021, 67, 101571.	0.7	6
8	A note on isotropic discrepancy and spectral test of lattice point sets. Journal of Complexity, 2020, 58, 101441.	0.7	1
9	Exponential tractability of linear weighted tensor product problems in the worst-case setting for arbitrary linear functionals. Journal of Complexity, 2020, 61, 101501.	0.7	3
10	A note on the periodic L_2-discrepancy of Korobov's p-sets. Archiv Der Mathematik, 2020, 115, 67-78.	0.3	3
11	Tractability properties of the discrepancy in Orlicz norms. Journal of Complexity, 2020, 61, 101468.	0.7	2
12	Discrepancy of Digital Sequences: New Results on a Classical QMC Topic. Springer Proceedings in Mathematics and Statistics, 2020, , 81-103.	0.1	0
13	Lower Bounds on the L_p Discrepancy of Digital NUT Sequences. Springer Proceedings in Mathematics and Statistics, 2020, , 329-344.	0.1	0
14	Truncation dimension for linear problems on multivariate function spaces. Numerical Algorithms, 2019, 80, 661-685.	1.1	7
15	Truncation in average and worst case settings for special classes of ∞-variate functions. Mathematics and Computers in Simulation, 2019, 161, 52-65.	2.4	2
16	Tractability properties of the weighted star discrepancy of the Halton sequence. Journal of Computational and Applied Mathematics, 2019, 350, 46-54.	1.1	7
17	Tractability properties of the weighted star discrepancy of regular grids. Journal of Complexity, 2018, 46, 103-112.	0.7	2
18	On Weyl products and uniform distribution modulo one. Monatshefte Fur Mathematik, 2018, 185, 365-395.	0.5	7

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19	Integration and approximation in cosine spaces of smooth functions. Mathematics and Computers in Simulation, 2018, 143, 35-45.	2.4	3
20	Lattice-based integration algorithms: Kronecker sequences and rank-1 lattices. Annali Di Matematica Pura Ed Applicata, 2018, 197, 109-126.	0.5	2
21	On the Optimal Order of Integration in Hermite Spaces with Finite Smoothness. SIAM Journal on Numerical Analysis, 2018, 56, 684-707.	1.1	15
22	Ian Sloan and Lattice Rules. , 2018, , 741-769.		0
23	Truncation Dimension for Function Approximation. , 2018, , 771-792.		2
24	Tractability of $\mathbb{L}_2$-approximation in hybrid function spaces. Functiones Et Approximatio, Commentarii Mathematici, 2018, 58, .	0.1	1
25	Digital net properties of a polynomial analogue of Frolov's construction. Finite Fields and Their Applications, 2018, 51, 325-350.	0.6	0
26	Metrical Star Discrepancy Bounds for Lacunary Subsequences of Digital Kronecker-Sequences and Polynomial Tractability. Uniform Distribution Theory, 2018, 13, 65-86.	0.2	2
27	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi mathvariant="double-struck">L</mml:mi></mml:mrow><mml:mrow><mml:mi>â˘ž</mml:mi></mml:mrow></mml:msub></mml:math in Korobov spaces with exponential weights. Journal of Complexity, 2017, 41, 102-125.	0.7	8
28	Optimal L p -discrepancy bounds for second order digital sequences. Israel Journal of Mathematics, 2017, 221, 489-510.	0.4	6
29	A note on equivalence of anchored and ANOVA spaces; lower bounds. Journal of Complexity, 2017, 38, 31-38.	0.7	10
30	DISCREPANCY OF SECOND ORDER DIGITAL SEQUENCES IN FUNCTION SPACES WITH DOMINATING MIXED SMOOTHNESS. Mathematika, 2017, 63, 863-894.	0.3	5
31	Digital inversive vectors can achieve polynomial tractability for the weighted star discrepancy and for multivariate integration. Proceedings of the American Mathematical Society, 2017, 145, 3297-3310.	0.4	4
32	Open type quasi-Monte Carlo integration based on Halton sequences in weighted Sobolev spaces. Journal of Complexity, 2016, 33, 169-189.	0.7	4
33	Tractability of Multivariate Integration in Hybrid Function Spaces. Springer Proceedings in Mathematics and Statistics, 2016, , 437-454.	0.1	1
34	Tractability of multivariate approximation defined over Hilbert spaces with exponential weights. Journal of Approximation Theory, 2016, 207, 301-338.	0.5	31
35	Approximation in Hermite spaces of smooth functions. Journal of Approximation Theory, 2016, 207, 98-126.	0.5	23
36	Very low truncation dimension for high dimensional integration under modest error demand. Journal of Complexity, 2016, 35, 63-85.	0.7	17

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37	From van der Corput to modern constructions of sequences for quasi-Monte Carlo rules. Indagationes Mathematicae, 2015, 26, 760-822.	0.2	30
38	Proof techniques in quasi-Monte Carlo theory. Journal of Complexity, 2015, 31, 327-371.	0.7	14
39	The weighted star discrepancy of Korobov's p-sets. Proceedings of the American Mathematical Society, 2015, 143, 5043-5057.	0.4	11
40	Integration in Hermite spaces of analytic functions. Journal of Complexity, 2015, 31, 380-404.	0.7	32
41	Numerical integration in log-Korobov and log-cosine spaces. Numerical Algorithms, 2015, 70, 753-775.	1.1	1
42	L p -discrepancy of the symmetrized van der Corput sequence. Archiv Der Mathematik, 2015, 104, 407-418.	0.3	6
43	A reduced fast component-by-component construction of lattice points for integration in weighted spaces with fast decreasing weights. Journal of Computational and Applied Mathematics, 2015, 276, 1-15.	1.1	12
44	Multivariate integration of infinitely many times differentiable functions in weighted Korobov spaces. Mathematics of Computation, 2014, 83, 1189-1206.	1.1	37
45	Introduction to Quasi-Monte Carlo Integration and Applications. Compact Textbooks in Mathematics, 2014, , .	0.1	72
46	Lattice rules for nonperiodic smooth integrands. Numerische Mathematik, 2014, 126, 259-291.	0.9	43
47	A metrical lower bound on the star discrepancy of digital sequences. Monatshefte Fur Mathematik, 2014, 174, 105-123.	0.5	4
48	Metrical lower bounds on the discrepancy of digital Kronecker-sequences. Journal of Number Theory, 2014, 135, 262-283.	0.2	4
49	Approximation of analytic functions in Korobov spaces. Journal of Complexity, 2014, 30, 2-28.	0.7	38
50	Tractability of multivariate analytic problems. , 2014, , 147-170.		1
51	Explicit constructions of point sets and sequences with low discrepancy. , 2014, , 63-86.		12
52	Discrepancy Theory and Quasi-Monte Carlo Integration. Lecture Notes in Mathematics, 2014, , 539-619.	0.1	20
53	Optimal L_2 discrepancy bounds for higher order digital sequences over the finite field F_2. Acta Arithmetica, 2014, 162, 65-99.	0.2	23
54	Discrepancy estimates for index-transformed uniformly distributed sequences. Functiones Et Approximatio, Commentarii Mathematici, 2014, 51, .	0.1	1

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55	The Inverse of the Star-Discrepancy Problem and the Generation of Pseudo-Random Numbers. Lecture Notes in Computer Science, 2014, , 173-184.	1.0	1
56	Lattice Point Sets. Compact Textbooks in Mathematics, 2014, , 73-106.	0.1	0
57	On the existence of lowâ€diaphony sequences made of digital sequences and lattice point sets. Mathematische Nachrichten, 2013, 286, 224-235.	0.4	3
58	On the existence and distribution quality of hyperplane sequences. Finite Fields and Their Applications, 2013, 22, 1-15.	0.6	0
59	The p-adic diaphony of the Halton sequence. Functiones Et Approximatio, Commentarii Mathematici, 2013, 49, .	0.1	4
60	A generalization of NUT digital (0,1)-sequences and best possible lower bounds for star discrepancy. Acta Arithmetica, 2013, 158, 321-340.	0.2	3
61	Component-by-Component Construction of Hybrid Point Sets Based on Hammersley and Lattice Point Sets. Springer Proceedings in Mathematics and Statistics, 2013, , 501-515.	0.1	1
62	Discrepancy of higher rank polynomial lattice point sets. Monte Carlo Methods and Applications, 2012, 18, .	0.3	1
63	Low discrepancy polynomial lattice point sets. Journal of Number Theory, 2012, 132, 2510-2534.	0.2	6
64	Efficient calculation of the worst-case error and (fast) component-by-component construction of higher order polynomial lattice rules. Numerical Algorithms, 2012, 59, 403-431.	1.1	36
65	Polynomial Lattice Point Sets. Springer Proceedings in Mathematics and Statistics, 2012, , 189-210.	0.1	9
66	A generalisation of a result of de la VallÃ©e Poussin. Elemente Der Mathematik, 2012, 67, 26-38.	0.1	1
67	Exponential convergence and tractability of multivariate integration for Korobov spaces. Mathematics of Computation, 2011, 80, 905-905.	1.1	39
68	Extensible hyperplane nets. Finite Fields and Their Applications, 2011, 17, 407-423.	0.6	1
69	Duality theory and propagation rules for higher order nets. Discrete Mathematics, 2011, 311, 362-386.	0.4	8
70	Construction algorithms for higher order polynomial lattice rules. Journal of Complexity, 2011, 27, 281-299.	0.7	21
71	L_2 discrepancy of generalized Zaremba point sets. Journal De Theorie Des Nombres De Bordeaux, 2011, 23, 121-136.	0.0	2
72	A lower bound on a quantity related to the quality of polynomial lattices. Functiones Et Approximatio, Commentarii Mathematici, 2011, 45, .	0.1	3

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73	Euler's Constant and Averages of Fractional Parts. American Mathematical Monthly, 2010, 117, 78.	0.2	5
74	L₂discrepancy of generalized two-dimensional Hammersley point sets scrambled with arbitrary permutations. Acta Arithmetica, 2010, 141, 395-418.	0.2	16
75	DISTRIBUTION PROPERTIES OF GENERALIZED VAN DER CORPUT–HALTON SEQUENCES AND THEIR SUBSEQUENCES. International Journal of Number Theory, 2009, 05, 719-746.	0.2	27
76	L p discrepancy of generalized two-dimensional Hammersley point sets. Monatshefte Fur Mathematik, 2009, 158, 31-61.	0.5	15
77	Construction Algorithms for Good Extensible Lattice Rules. Constructive Approximation, 2009, 30, 361-393.	1.8	12
78	Learning a function from noisy samples at a finite sparse set of points. Journal of Approximation Theory, 2009, 161, 448-463.	0.5	2
79	THE AVERAGE DISTANCE BETWEEN TWO POINTS. Bulletin of the Australian Mathematical Society, 2009, 80, 353-359.	0.3	26
80	Discrepancy of Hyperplane Nets and Cyclic Nets. , 2009, , 573-587.		4
81	Distribution properties of sequences generated by Q-additive functions with respect to Cantor representation of integers. Acta Arithmetica, 2009, 138, 179-200.	0.2	3
82	L 2 Discrepancy of Two-Dimensional Digitally Shifted Hammersley Point Sets in Base b. , 2009, , 355-368.		3
83	Tractability properties of the weighted star discrepancy. Journal of Complexity, 2008, 24, 134-143.	0.7	16
84	Average growth-behavior and distribution properties of generalized weighted digit-block-counting functions. Monatshefte Fur Mathematik, 2008, 154, 199-230.	0.5	7
85	Component-by-component construction of low-discrepancy point sets of small size. Monte Carlo Methods and Applications, 2008, 14, 129-149.	0.3	18
86	The Sum of Distances Between Vertices of a Convex Polygon with Unit Perimeter. American Mathematical Monthly, 2008, 115, 350-355.	0.2	4
87	The construction of good extensible rank-1 lattices. Mathematics of Computation, 2008, 77, 2345-2373.	1.1	39
88	The Weighted Dyadic Diaphony of Digital Sequences. , 2008, , 549-560.		5
89	Randomized Smolyak algorithms based on digital sequences for multivariate integration. IMA Journal of Numerical Analysis, 2007, 27, 655-674.	1.5	3
90	Constructions of general polynomial lattices for multivariate integration. Bulletin of the Australian Mathematical Society, 2007, 76, 93-110.	0.3	11

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91	On optimal point distributions in $\langle$mml:math altimg="si2.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.else. Journal	1.1	6
92	Constructions of general polynomial lattice rules based on the weighted star discrepancy. Finite Fields and Their Applications, 2007, 13, 1045-1070.	0.6	10
93	On the existence of higher order polynomial lattices based on a generalized figure of merit. Journal of Complexity, 2007, 23, 581-593.	0.7	13
94	Smolyak algorithms based on digital (t,ÃŽÂ±,d)-sequences for multivariate integration. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1022403-1022404.	0.2	0
95	Strong tractability of multivariate integration of arbitrary order. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1022405-1022406.	0.2	0
96	On the weighted dyadic diaphony of digital (t, s)â€‘sequences. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1026601-1026602.	0.2	1
97	Point sets with low L p-discrepancy. Mathematica Slovaca, 2007, 57, 11.	0.3	3
98	A thorough analysis of the discrepancy of shifted Hammersley and van der Corput point sets. Annali Di Matematica Pura Ed Applicata, 2007, 186, 229-250.	0.5	12
99	The construction of good extensible Korobov rules. Computing (Vienna/New York), 2007, 79, 79-91.	3.2	4
100	Strong tractability of multivariate integration of arbitrary high order using digitally shifted polynomial lattice rules. Journal of Complexity, 2007, 23, 436-453.	0.7	30
101	Dyadic diaphony of digital sequences. Journal De Theorie Des Nombres De Bordeaux, 2007, 19, 501-521.	0.0	2
102	Cyclic Digital Nets, Hyperplane Nets, and Multivariate Integration in Sobolev Spaces. SIAM Journal on Numerical Analysis, 2006, 44, 385-411.	1.1	22
103	Digital Sequences with Best Possible Order of L_2 â€‘Discrepancy. Mathematika, 2006, 53, 149-160.	0.3	3
104	On the mean square weighted $\langle$mml:math altimg="si1.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.elsevier.com/x	0.7	6
105	Periodic functions with bounded remainder. Archiv Der Mathematik, 2006, 87, 554-563.	0.3	5
106	The tent transformation can improve the convergence rate of quasi-Monte Carlo algorithms using digital nets. Numerische Mathematik, 2006, 105, 413-455.	0.9	13
107	Diaphony, discrepancy, spectral test and worst-case error. Mathematics and Computers in Simulation, 2005, 70, 159-171.	2.4	10
108	Multivariate integration in weighted Hilbert spaces based on Walsh functions and weighted Sobolev spaces. Journal of Complexity, 2005, 21, 149-195.	0.7	74

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109	Precise distribution properties of the van der Corput sequence and related sequences. Manuscripta Mathematica, 2005, 118, 11-41.	0.3	20
110	Dyadic Diaphony of Digital Nets Over ₂. Monatshefte Fur Mathematik, 2005, 145, 285-299.	0.5	5
111	Construction algorithms for polynomial lattice rules for multivariate integration. Mathematics of Computation, 2005, 74, 1895-1922.	1.1	52
112	Moments of the Weighted Sum-of-Digits Function. Quaestiones Mathematicae, 2005, 28, 321-336.	0.2	4
113	Construction Algorithms for Digital Nets with Low Weighted Star Discrepancy. SIAM Journal on Numerical Analysis, 2005, 43, 76-95.	1.1	23
114	On the mean square weighted L2discrepancy of randomized digital (t,m,s)-nets over Z2. Acta Arithmetica, 2005, 117, 371-403.	0.2	25
115	On the root mean square weighted L2 discrepancy of scrambled nets. Journal of Complexity, 2004, 20, 638-653.	0.7	3
116	On the discrepancy of (0,1)-sequences. Journal of Number Theory, 2004, 104, 301-314.	0.2	18
117	Walsh Series Analysis of the Star Discrepancy of Digital Nets and Sequences. , 2004, , 315-327.		1
118	Weighted Discrepancy and High-Dimensional Numerical Integration. BIT Numerical Mathematics, 2003, 43, 123-137.	1.0	5
119	On extremal point distributions in the Euclidean plane. Acta Mathematica Hungarica, 2003, 98, 311-321.	0.3	9
120	Bounds for the weighted Lp discrepancy and tractability of integration. Journal of Complexity, 2003, 19, 529-547.	0.7	16
121	Weighted discrepancy of Faure-Niederreiter nets for a certain sequence of weights. Bulletin of the Australian Mathematical Society, 2003, 67, 377-382.	0.3	1
122	A lower bound for rank 2 lattice rules. Mathematics of Computation, 2003, 73, 853-861.	1.1	1
123	Sums of distances to the nearest integer and the discrepancy of digital nets. Acta Arithmetica, 2003, 106, 379-408.	0.2	29
124	Improved upper bounds for the star discrepancy of digital nets in dimension 3. Acta Arithmetica, 2003, 108, 167-189.	0.2	10
125	Bounds for the Quality Parameter of Digital Shift Nets over Z2. Finite Fields and Their Applications, 2002, 8, 444-454.	0.6	0
126	On the -Discrepancy of the Hammersley Point Set. Monatshefte Fur Mathematik, 2002, 136, 67-79.	0.5	12

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127	A Method for Approximate Inversion of the Hyperbolic CDF. Computing (Vienna/New York), 2002, 69, 291-303.	3.2	8
128	A note on the sum of distances under a diameter constraint. Archiv Der Mathematik, 2001, 77, 195-199.	0.3	9
129	Walsh Series Analysis of the L_2-Discrepancy of Symmetrisized Point Sets. Monatshefte Fur Mathematik, 2001, 132, 1-18.	0.5	38
130	On the sum of squared distances in the Euclidean plane. Archiv Der Mathematik, 2000, 74, 472-480.	0.3	12
131	On an important family of inequalities of Niederreiter involving exponential sums. , 0, , 144-163.		0
132	Controlling the shape of generating matrices in global function field constructions of digital sequences. , 0, , 164-189.		1
133	Some highlights of Harald Niederreiter's work. , 0, , 1-21.		0
134	Applications of geometric discrepancy in numerical analysis and statistics. , 0, , 39-57.		0
135	Discrepancy bounds for low-dimensional point sets. , 0, , 58-90.		1
136	Construction of a rank-1 lattice sequence based on primitive polynomials. , 0, , 204-215.		1
137	A quasi-Monte Carlo method for the coagulation equation. , 0, , 216-234.		0