Frances Y Kuo

List of Publications by Year
in descending order

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52	2,155	361045	233125
papers	citations	20	45
		h-index	g-index

54	54	54	880
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Fast approximation by periodic kernel-based lattice-point interpolation with application in uncertainty quantification. Numerische Mathematik, 2022, 150, 33-77.	0.9	3
2	Equivalence between Sobolev spaces of first-order dominating mixed smoothness and unanchored ANOVA spaces on â„•{?}. Mathematics of Computation, 2022, 91, 1837-1869.	1.1	1
3	Quasi-Monte Carlo Finite Element Analysis for Wave Propagation in Heterogeneous Random Media. SIAM-ASA Journal on Uncertainty Quantification, 2021, 9, 106-134.	1.1	6
4	Lattice meets lattice: Application of lattice cubature to models in lattice gauge theory. Journal of Computational Physics, 2021, 443, 110527.	1.9	0
5	A Quasi-Monte Carlo Method for Optimal Control Under Uncertainty. SIAM-ASA Journal on Uncertainty Quantification, 2021, 9, 354-383.	1.1	20
6	Lattice rules with random n achieve nearly the optimal O(nâ^'Î±â^'1â^•2) error independently of the dimension. Journal of Approximation Theory, 2019, 240, 96-113.	0.5	8
7	Circulant embedding with QMC: analysis for elliptic PDE with lognormal coefficients. Numerische Mathematik, 2018, 140, 479-511.	0.9	20
8	Hiding the weightsâ€"CBC black box algorithms with a guaranteed error bound. Mathematics and Computers in Simulation, 2018, 143, 202-214.	2.4	1
9	Efficient Implementations of the Multivariate Decomposition Method for Approximating Infinite-Variate Integrals. SIAM Journal of Scientific Computing, 2018, 40, A3240-A3266.	1.3	7
10	High dimensional integration of kinks and jumpsâ€"Smoothing by preintegration. Journal of Computational and Applied Mathematics, 2018, 344, 259-274.	1.1	12
11	Fast random field generation with H-matrices. Numerische Mathematik, 2018, 140, 639-676.	0.9	21
12	Hot New Directions for Quasi-Monte Carlo Research in Step with Applications. Springer Proceedings in Mathematics and Statistics, 2018, , 123-144.	0.1	3
13	Combining Sparse Grids, Multilevel MC and QMC for Elliptic PDEs with Random Coefficients. Springer Proceedings in Mathematics and Statistics, 2018, , 265-281.	0.1	1
14	Application of Quasi-Monte Carlo Methods to PDEs with Random Coefficients â€“ An Overview and Tutorial. Springer Proceedings in Mathematics and Statistics, 2018, , 53-71.	0.1	1
15	Multilevel Quasi-Monte Carlo methods for lognormal diffusion problems. Mathematics of Computation, 2017, 86, 2827-2860.	1.1	54
16	The ANOVA decomposition of a non-smooth function of infinitely many variables can have every term smooth. Mathematics of Computation, 2016, 86, 1855-1876.	1.1	9
17	Application of Quasi-Monte Carlo Methods to Elliptic PDEs with Random Diffusion Coefficients: A Survey of Analysis and Implementation. Foundations of Computational Mathematics, 2016, 16, 1631-1696.	1.5	97
18	Multilevel Higher Order QMC Petrov--Galerkin Discretization for Affine Parametric Operator Equations. SIAM Journal on Numerical Analysis, 2016, 54, 2541-2568.	1.1	35

#	Article	IF	Citations
19	Tent-transformed lattice rules for integration and approximation of multivariate non-periodic functions. Journal of Complexity, 2016, 36, 166-181.	0.7	18
20	Multi-level Quasi-Monte Carlo Finite Element Methods for a Class of Elliptic PDEs with Random Coefficients. Foundations of Computational Mathematics, 2015, 15, 411-449.	1.5	75
21	Guest Editorsâ€™ Preface. Journal of Complexity, 2015, 31, vi.	0.7	0
22	Fast QMC Matrix-Vector Multiplication. SIAM Journal of Scientific Computing, 2015, 37, A1436-A1450.	1.3	9
23	Higher Order QMC Petrov--Galerkin Discretization for Affine Parametric Operator Equations with Random Field Inputs. SIAM Journal on Numerical Analysis, 2014, 52, 2676-2702.	1.1	70
24	Fast CBC construction of randomly shifted lattice rules achieving<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si120.gif" display="inline" overflow="scroll"><mml:mi mathvariant="script">O</mml:mi><mml:mrow><mml:mo>(</mml:mo><mml:msup><mml:mrow><mml:mi>n</mml:mi></mml:mrow><r for unbounded integrands over<mml:math xmlns:mml="http://www.w3.. Journal of Complexity, 2014, 30, 444-468.	0.7	27
25	High-dimensional integration: The quasi-Monte Carlo way. Acta Numerica, 2013, 22, 133-288.	6.3	404
26	On the Choice of Weights in a Function Space for Quasi-Monte Carlo Methods for a Class of Generalised Response Models in Statistics. Springer Proceedings in Mathematics and Statistics, 2013, , 631-647.	0.1	2
27	Quasi-Monte Carlo Finite Element Methods for a Class of Elliptic Partial Differential Equations with Random Coefficients. SIAM Journal on Numerical Analysis, 2012, 50, 3351-3374.	1.1	176
28	The smoothing effect of integration in $mathbb {R}^d$ and the ANOVA decomposition. Mathematics of Computation, 2012, 82, 383-400.	1.1	29
29	Gauss-Hermite quadratures for functions from Hilbert spaces with Gaussian reproducing kernels. BIT Numerical Mathematics, 2012, 52, 425-436.	1.0	6
30	Weighted compound integration rules with higher order convergence for all N. Numerical Algorithms, 2012, 59, 161-183.	1.1	12
31	Randomly shifted lattice rules with the optimal rate of convergence for unbounded integrands. Journal of Complexity, 2010, 26, 135-160.	0.7	30
32	Constructing lattice rules based on weighted degree of exactness and worst case error. Computing (Vienna/New York), 2010, 87, 63-89.	3.2	21
33	Liberating the dimension. Journal of Complexity, 2010, 26, 422-454.	0.7	55
34	The smoothing effect of the ANOVA decomposition. Journal of Complexity, 2010, 26, 523-551.	0.7	37
35	On the power of standard information for multivariate approximation in the worst case setting. Journal of Approximation Theory, 2009, 158, 97-125.	0.5	35
36	On the power of standard information forÂL â^žÂapproximation in the randomized setting. BIT Numerical Mathematics, 2009, 49, 543-564.	1.0	2

#	Article	IF	Citations
37	Lattice Algorithms for Multivariate L â^ž Approximation in the Worst-Case Setting. Constructive Approximation, 2009, 30, 475.	1.8	10
38	Lattice rule algorithms for multivariate approximation in the average case setting. Journal of Complexity, 2008, 24, 283-323.	0.7	34
39	Multivariate <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:msub><mml:mrow><mml:mi>L</mml:mi></mml:mrow><mml:mrow><mml:mo>â^ž</mml:mo></mml:mrow> approximation in the worst case setting over reproducing kernel Hilbert spaces. Journal of Approximation Theory, 2008, 152, 135-160.	0.5	19
40	Constructing Sobol Sequences with Better Two-Dimensional Projections. SIAM Journal of Scientific Computing, 2008, 30, 2635-2654.	1.3	238
41	A component-by-component approach to efficient numerical integration over products of spheres. Journal of Complexity, 2007, 23, 25-51.	0.7	4
42	Periodization strategy may fail in high dimensions. Numerical Algorithms, 2007, 46, 369-391.	1.1	14
43	Lattice-NystrÃ¶m method for Fredholm integral equations of the second kind with convolution type kernels. Journal of Complexity, 2007, 23, 752-772.	0.7	17
44	Constructing Embedded Lattice Rules for Multivariate Integration. SIAM Journal of Scientific Computing, 2006, 28, 2162-2188.	1.3	84
45	Randomly shifted lattice rules on the unit cube for unbounded integrands in high dimensions. Journal of Complexity, 2006, 22, 71-101.	0.7	8
46	Randomly shifted lattice rules for unbounded integrands. Journal of Complexity, 2006, 22, 630-651.	0.7	22
47	Lattice Rules for Multivariate Approximation in the Worst Case Setting. , 2006, , 289-330.		21
48	Quasi-Monte Carlo methods can be efficient for integration over products of spheres. Journal of Complexity, 2005, 21, 196-210.	0.7	20
49	Constructing Good Lattice Rules with Millions of Points. , 2004, , 181-197.		6
50	Remark on algorithm 659. ACM Transactions on Mathematical Software, 2003, 29, 49-57.	1.6	284
51	Component-by-Component Construction of Good Lattice Rules with a Composite Number of Points. Journal of Complexity, 2002, 18, 943-976.	0.7	34
52	Quasi-Monte Carlo for finance applications. ANZIAM Journal, 0, 50, 308.	0.0	33