Yuan Xu

List of Publications by Year
in descending order

93	2,741	279798	302126
papers	citations	23 h-index	39 g-index

97	97	97	703
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Approximation Theory and Harmonic Analysis on Spheres and Balls. Springer Monographs in Mathematics, 2013, , .	0.2	211
2	Convolution operator and maximal function for the Dunkl transform. Journal D'Analyse Mathematique, 2005, 97, 25-55.	0.8	162
3	On Sobolev orthogonal polynomials. , 2015, 33, 308-352.		98
4	Bivariate Lagrange interpolation at the Padua points: The generating curve approach. Journal of Approximation Theory, 2006, 143, 15-25.	0.8	81
5	Summability of Fourier orthogonal series for Jacobi weight on a ball in $mathbb {R}^d$. Transactions of the American Mathematical Society, 1999, 351, 2439-2458.	0.9	67
6	Lagrange Interpolation on Chebyshev Points of Two Variables. Journal of Approximation Theory, 1996, 87, 220-238.	0.8	58
7	Orthogonal Polynomials for a Family of Product Weight Functions on the Spheres. Canadian Journal of Mathematics, 1997, 49, 175-192.	0.6	54
8	Discrete Fourier Analysis, Cubature, and Interpolation on a Hexagon and a Triangle. SIAM Journal on Numerical Analysis, 2008, 46, 1653-1681.	2.3	53
9	Integration of the intertwining operator for h-harmonic polynomials associated to reflection groups. Proceedings of the American Mathematical Society, 1997, 125, 2963-2973.	0.8	50
10	Localized Polynomial Frames on the Ball. Constructive Approximation, 2008, 27, 121-148.	3.0	46
11	On discrete orthogonal polynomials of several variables. Advances in Applied Mathematics, 2004, 33, 615-632.	0.7	42
12	l-1 summability of multiple Fourier integrals and positivity. Mathematical Proceedings of the Cambridge Philosophical Society, 1997, 122, 149-172.	0.4	40
13	Discrete Fourier Analysis on Fundamental Domain andÂSimplex of A d Lattice in d-Variables. Journal of Fourier Analysis and Applications, 2010, 16, 383-433.	1.0	40
14	Bivariate Lagrange interpolation at the Padua points: the ideal theory approach. Numerische Mathematik, 2007, 108, 43-57.	1.9	38
15	Decomposition of weighted Triebel-Lizorkin and Besov spaces on the ball. Proceedings of the London Mathematical Society, 2008, 97, 477-513.	1.3	35
16	Spectral Approximation on the Unit Ball. SIAM Journal on Numerical Analysis, 2014, 52, 2647-2675.	2.3	34
17	On multivariate Hermite interpolation. Advances in Computational Mathematics, 1995, 4, 207-259.	1.6	33
18	Discrete orthogonal polynomials and difference equations of several variables. Advances in Mathematics, 2007, 212, 1-36.	1.1	33

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19	Decomposition of Spaces of Distributions Induced byÂHermite Expansions. Journal of Fourier Analysis and Applications, 2008, 14, 372-414.	1.0	33
20	Localized Polynomial Frames on the Interval with Jacobi Weights. Journal of Fourier Analysis and Applications, 2005, 11, 557-575.	1.0	31
21	On bivariate Gaussian cubature formulae. Proceedings of the American Mathematical Society, 1994, 122, 833-841.	0.8	29
22	Funk-Hecke Formula for Orthogonal Polynomials on Spheres and on Balls. Bulletin of the London Mathematical Society, 2000, 32, 447-457.	0.8	29
23	Sub-exponentially localized kernels and frames induced by orthogonal expansions. Mathematische Zeitschrift, 2010, 264, 361-397.	0.9	26
24	Constructive methods of approximation by ridge functions and radial functions. Numerical Algorithms, 1993, 4, 205-223.	1.9	25
25	Sobolev orthogonal polynomials defined via gradient on the unit ball. Journal of Approximation Theory, 2008, 152, 52-65.	0.8	24
26	A family of Sobolev orthogonal polynomials on the unit ball. Journal of Approximation Theory, 2006, 138, 232-241.	0.8	23
27	Fourier Series and Approximation on Hexagonal andÂTriangular Domains. Constructive Approximation, 2010, 31, 115-138.	3.0	23
28	CesÃro Means of Orthogonal Expansions in Several Variables. Constructive Approximation, 2009, 29, 129-155.	3.0	21
29	Moduli of smoothness and approximation on the unit sphere and the unit ball. Advances in Mathematics, 2010, 224, 1233-1310.	1.1	21
30	FejÃ©r means for multivariate Fourier series. Mathematische Zeitschrift, 1996, 221, 449-465.	0.9	20
31	Weighted Approximation of Functions on the Unit Sphere. Constructive Approximation, 2003, -1, 1-1.	3.0	19
32	Summability of orthogonal expansions of several variables. Journal of Approximation Theory, 2003, 122, 267-333.	0.8	19
33	Decomposition of Triebelâ€“Lizorkin and Besov spaces in the context of Laguerre expansions. Journal of Functional Analysis, 2009, 256, 1137-1188.	1.4	19
34	Jacobi decomposition of weighted Triebelâ€“Lizorkin and Besov spaces. Studia Mathematica, 2008, 186, 161-202.	0.7	19
35	Gaussian cubature and bivariate polynomial interpolation. Mathematics of Computation, 1992, 59, 547-547.	2.1	18
36	Weighted Sobolev orthogonal polynomials on the unit ball. Journal of Approximation Theory, 2013, 171, 84-104.	0.8	18

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37	Polynomial Interpolation on the Unit Sphere and on the Unit Ball. Advances in Computational Mathematics, 2004, 20, 247-260.	1.6	17
38	FejÃ©r means for multivariate fourier series. Mathematische Zeitschrift, 1996, 221, 449-465.	0.9	16
39	New cubature formulae and hyperinterpolation in three variables. BIT Numerical Mathematics, 2009, 49, 55-73.	2.0	16
40	Title is missing!. Advances in Computational Mathematics, 2000, 12, 363-376.	1.6	15
41	Approximation and Orthogonality in Sobolev Spaces on a Triangle. Constructive Approximation, 2017, 46, 349-434.	3.0	15
42	Orthogonal polynomials and partial differential equations on the unit ball. Proceedings of the American Mathematical Society, 2009, 137, 2979-2979.	0.8	14
43	Regular points for Lagrange interpolation on the unit disk. Numerical Algorithms, 1996, 12, 287-296.	1.9	13
44	Decomposition of spaces of distributions induced by tensor product bases. Journal of Functional Analysis, 2012, 263, 1147-1197.	1.4	13
45	Sobolev orthogonal polynomials on product domains. Journal of Computational and Applied Mathematics, 2015, 284, 202-215.	2.0	13
46	Orthogonal Polynomials and Fourier Orthogonal Series on a Cone. Journal of Fourier Analysis and Applications, 2020, 26, 1.	1.0	13
47	Constructing cubature formulae by the method of reproducing kernel. Numerische Mathematik, 2000, 85, 155-173.	1.9	12
48	Sobolev Orthogonal Polynomials on a Simplex. International Mathematics Research Notices, 2013, 2013, 3087-3131.	1.0	12
49	Orthogonal polynomials in and on a quadratic surface of revolution. Mathematics of Computation, 2020, 89, 2847-2865.	2.1	12
50	Orthogonal structure on a quadratic curve. IMA Journal of Numerical Analysis, 2021, 41, 206-246.	2.9	12
51	Orthogonal polynomials and summability in Fourier orthogonal series on spheres and on balls. Mathematical Proceedings of the Cambridge Philosophical Society, 2001, 131, .	0.4	11
52	The Hardyâ€“Rellich Inequality and Uncertainty Principle on the Sphere. Constructive Approximation, 2014, 40, 141-171.	3.0	11
53	Hahn, Jacobi, and Krawtchouk polynomials of several variables. Journal of Approximation Theory, 2015, 195, 19-42.	0.8	11
54	Harmonic Polynomials Associated With Reflection Groups. Canadian Mathematical Bulletin, 2000, 43, 496-507.	0.5	10

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55	Polynomial interpolation on the unit sphere II. Advances in Computational Mathematics, 2007, 26, 155-171.	1.6	10
56	Orthogonal Structure on a Wedge and on the Boundary of a Square. Foundations of Computational Mathematics, 2019, 19, 561-589.	2.5	10
57	Intertwining Operator and h-Harmonics Associated With Reflection Groups. Canadian Journal of Mathematics, 1998, 50, 193-209.	0.6	9
58	Connection coefficients for classical orthogonal polynomials of several variables. Advances in Mathematics, 2017, 310, 290-326.	1.1	9
59	Gaussian Bounds for the Weighted Heat Kernels on the Interval, Ball, and Simplex. Constructive Approximation, 2020, 51, 73-122.	3.0	9
60	Orthogonal structure and orthogonal series in and on a double cone or a hyperboloid. Transactions of the American Mathematical Society, 2021, 374, 3603-3657.	0.9	9
61	Minimal cubature formulae for a family of radial weight functions. Advances in Computational Mathematics, 1998, 8, 367-380.	1.6	8
62	Almost Everywhere Convergence of Orthogonal Expansions of Several Variables. Constructive Approximation, 2005, 22, 67-93.	3.0	8
63	Image reconstruction by OPED algorithm with averaging. Numerical Algorithms, 2007, 45, 179-193.	1.9	8
64	Orthogonal polynomials in several variables for measures with mass points. Numerical Algorithms, 2010, 55, 245-264.	1.9	8
65	Orthogonal Polynomials and Expansions for a Family of Weight Functions in Two Variables. Constructive Approximation, 2012, 36, 161-190.	3.0	8
66	Minimal cubature rules and polynomial interpolation in two variables. Journal of Approximation Theory, 2012, 164, 6-30.	0.8	8
67	A solvable mixed charge ensemble on the line: global results. Probability Theory and Related Fields, 2013, 155, 127-164.	1.8	8
68	Approximation and localized polynomial frame on conic domains. Journal of Functional Analysis, 2021, 281, 109257.	1.4	8
69	Approximation by Means of h-Harmonic Polynomials on the Unit Sphere. Advances in Computational Mathematics, 2004, 21, 37-58.	1.6	7
70	CesÃro means of Jacobi expansions on the parabolic biangle. Journal of Approximation Theory, 2009, 159, 167-179.	0.8	7
71	Complex versus real orthogonal polynomials of two variables. Integral Transforms and Special Functions, 2015, 26, 134-151.	1.2	7
72	Minimal cubature rules and polynomial interpolation in two variables II. Journal of Approximation Theory, 2017, 214, 49-68.	0.8	7

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73	Approximation by Polynomials in Sobolev Spaces with Jacobi Weight. Journal of Fourier Analysis and Applications, 2018, 24, 1438-1459.	1.0	7
74	Hahn polynomials on polyhedra and quantum integrability. Advances in Mathematics, 2020, 364, 107032.	1.1	7
75	On Polynomials of Least Deviation from Zero in Several Variables. Experimental Mathematics, 2004, 13, 103-112.	0.7	6
76	On a Two-Variable Class of Bernsteinâ€“SzegÅ‘ Measures. Constructive Approximation, 2009, 30, 71-91.	3.0	6
77	Discrete Fourier analysis with lattices on planar domains. Numerical Algorithms, 2010, 55, 279-300.	1.9	5
78	Uncertainty principle on weighted spheres, balls and simplexes. Journal of Approximation Theory, 2015, 192, 193-214.	0.8	5
79	An integral identity with applications in orthogonal polynomials. Proceedings of the American Mathematical Society, 2015, 143, 5253-5263.	0.8	5
80	Orthogonal Polynomials on Planar Cubic Curves. Foundations of Computational Mathematics, 2023, 23, 1-31.	2.5	5
81	A note on summability of multiple Laguerre expansions. Proceedings of the American Mathematical Society, 2000, 128, 3571-3578.	0.8	4
82	Intertwining Operators Associated with Dihedral Groups. Constructive Approximation, 2020, 52, 395-422.	3.0	3
83	A PRODUCT FORMULA FOR JACOBI POLYNOMIALS. , 2000, , .		3
84	Generalized Characteristic Polynomials and Gaussian Cubature Rules. SIAM Journal on Matrix Analysis and Applications, 2015, 36, 1129-1142.	1.4	2
85	Slater determinants of orthogonal polynomials. Journal of Mathematical Analysis and Applications, 2016, 435, 1552-1572.	1.0	2
86	Best polynomial approximation on the unit ball. IMA Journal of Numerical Analysis, 2018, 38, 1209-1228.	2.9	2
87	Non-homogeneous wave equation on a cone. Integral Transforms and Special Functions, 2021, 32, 604-619.	1.2	2
88	Hahn polynomials for hypergeometric distribution. Advances in Applied Mathematics, 2022, 139, 102364.	0.7	2
89	Wronskians of Fourier and Laplace transforms. Transactions of the American Mathematical Society, 2019, 372, 4107-4125.	0.9	1
90	Best polynomial approximation on the triangle. Journal of Approximation Theory, 2019, 241, 63-78.	0.8	1

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91	Laguerre Expansions on Conic Domains. Journal of Fourier Analysis and Applications, 2021, 27, 1.	1.0	1
92	Intertwining operator associated to symmetric groups and summability on the unit sphere. Journal of Approximation Theory, 2021, 272, 105649.	0.8	1
93	Borislav D. Bojanov: 18 November 1944â€“8 April 2009. Journal of Approximation Theory, 2010, 162, 1739-1765.	0.8	0