

# Bin Han

## List of Publications by Year in descending order

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82  
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docs citations

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times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Framelets: MRA-based constructions of wavelet frames. <i>Applied and Computational Harmonic Analysis</i> , 2003, 14, 1-46.	2.2	605
2	On Dual Wavelet Tight Frames. <i>Applied and Computational Harmonic Analysis</i> , 1997, 4, 380-413.	2.2	172
3	Multivariate Refinement Equations and Convergence of Subdivision Schemes. <i>SIAM Journal on Mathematical Analysis</i> , 1998, 29, 1177-1199.	1.9	161
4	Vector cascade algorithms and refinable function vectors in Sobolev spaces. <i>Journal of Approximation Theory</i> , 2003, 124, 44-88.	0.8	132
5	Pairs of Dual Wavelet Frames from Any Two Refinable Functions. <i>Constructive Approximation</i> , 2004, 20, 325-352.	3.0	107
6	Compactly supported tight wavelet frames and orthonormal wavelets of exponential decay with a general dilation matrix. <i>Journal of Computational and Applied Mathematics</i> , 2003, 155, 43-67.	2.0	98
7	Computing the Smoothness Exponent of a Symmetric Multivariate Refinable Function. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2003, 24, 693-714.	1.4	82
8	Approximation Properties and Construction of Hermite Interpolants and Biorthogonal Multiwavelets. <i>Journal of Approximation Theory</i> , 2001, 110, 18-53.	0.8	80
9	Nonhomogeneous wavelet systems in high dimensions. <i>Applied and Computational Harmonic Analysis</i> , 2012, 32, 169-196.	2.2	79
10	Dual Wavelet Frames and Riesz Bases in Sobolev Spaces. <i>Constructive Approximation</i> , 2009, 29, 369-406.	3.0	77
11	Pairs of frequency-based nonhomogeneous dual wavelet frames in the distribution space. <i>Applied and Computational Harmonic Analysis</i> , 2010, 29, 330-353.	2.2	68
12	Dual multiwavelet frames with high balancing order and compact fast frame transform. <i>Applied and Computational Harmonic Analysis</i> , 2009, 26, 14-42.	2.2	64
13	The Canonical Dual Frame of a Wavelet Frame. <i>Applied and Computational Harmonic Analysis</i> , 2002, 12, 269-285.	2.2	63
14	Symmetric MRA tight wavelet frames with three generators and high vanishing moments. <i>Applied and Computational Harmonic Analysis</i> , 2005, 18, 67-93.	2.2	63
15	Multiwavelet Frames from Refinable Function Vectors. <i>Advances in Computational Mathematics</i> , 2003, 18, 211-245.	1.6	61
16	Wavelet bi-frames with few generators from multivariate refinable functions. <i>Applied and Computational Harmonic Analysis</i> , 2008, 25, 407-414.	2.2	61
17	Analysis and Construction of Optimal Multivariate Biorthogonal Wavelets with Compact Support. <i>SIAM Journal on Mathematical Analysis</i> , 2000, 31, 274-304.	1.9	59
18	Symmetric orthonormal scaling functions and wavelets with dilation factor 4. <i>Advances in Computational Mathematics</i> , 1998, 8, 221-247.	1.6	58

#	ARTICLE	IF	CITATIONS
19	Wavelets with Short Support. <i>SIAM Journal on Mathematical Analysis</i> , 2006, 38, 530-556.	1.9	57
20	Framelets and Wavelets. <i>Applied and Numerical Harmonic Analysis</i> , 2017, , .	0.3	50
21	Tensor Product Complex Tight Framelets with Increasing Directionality. <i>SIAM Journal on Imaging Sciences</i> , 2014, 7, 997-1034.	2.2	48
22	Construction of multivariate biorthogonal wavelets with arbitrary vanishing moments. <i>Advances in Computational Mathematics</i> , 2000, 13, 131-165.	1.6	43
23	Multiwavelets on the Interval. <i>Applied and Computational Harmonic Analysis</i> , 2002, 12, 100-127.	2.2	43
24	Splitting a Matrix of Laurent Polynomials with Symmetry and its Application to Symmetric Framelet Filter Banks. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2004, 26, 97-124.	1.4	43
25	Properties of Discrete Framelet Transforms. <i>Mathematical Modelling of Natural Phenomena</i> , 2013, 8, 18-47.	2.4	43
26	Refinable Functions and Cascade Algorithms in Weighted Spaces with Hölder Continuous Masks. <i>SIAM Journal on Mathematical Analysis</i> , 2008, 40, 70-102.	1.9	39
27	Multivariate refinable Hermite interpolant. <i>Mathematics of Computation</i> , 2003, 73, 1913-1936.	2.1	38
28	Matrix Extension with Symmetry and Applications to Symmetric Orthonormal Complex M-wavelets. <i>Journal of Fourier Analysis and Applications</i> , 2009, 15, 684-705.	1.0	37
29	Noninterpolatory Hermite subdivision schemes. <i>Mathematics of Computation</i> , 2004, 74, 1345-1368.	2.1	34
30	Symmetric orthonormal complex wavelets with masks of arbitrarily high linear-phase moments and sum rules. <i>Advances in Computational Mathematics</i> , 2010, 32, 209-237.	1.6	33
31	An improved lattice vector quantization scheme for wavelet compression. <i>IEEE Transactions on Signal Processing</i> , 1998, 46, 239-243.	5.3	30
32	Matrix splitting with symmetry and symmetric tight framelet filter banks with two high-pass filters. <i>Applied and Computational Harmonic Analysis</i> , 2013, 35, 200-227.	2.2	30
33	Solutions in Sobolev spaces of vector refinement equations with a general dilation matrix. <i>Advances in Computational Mathematics</i> , 2006, 24, 375-403.	1.6	29
34	Matrix Extension with Symmetry and Its Application to Symmetric Orthonormal Multiwavelets. <i>SIAM Journal on Mathematical Analysis</i> , 2010, 42, 2297-2317.	1.9	29
35	Directional tensor product complex tight framelets with low redundancy. <i>Applied and Computational Harmonic Analysis</i> , 2016, 41, 603-637.	2.2	28
36	Characterization of Riesz bases of wavelets generated from multiresolution analysis. <i>Applied and Computational Harmonic Analysis</i> , 2007, 23, 321-345.	2.2	27

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37	Symmetric orthogonal filters and wavelets with linear-phase moments. <i>Journal of Computational and Applied Mathematics</i> , 2011, 236, 482-503.	2.0	27
38	Biorthogonal multiwavelets on the interval for numerical solutions of Burgers's equation. <i>Journal of Computational and Applied Mathematics</i> , 2017, 317, 510-534.	2.0	27
39	The structure of balanced multivariate biorthogonal multiwavelets and dual multiframelets. <i>Mathematics of Computation</i> , 2009, 79, 917-951.	2.1	26
40	Symmetric tight framelet filter banks with three high-pass filters. <i>Applied and Computational Harmonic Analysis</i> , 2014, 37, 140-161.	2.2	23
41	Algorithm for constructing symmetric dual framelet filter banks. <i>Mathematics of Computation</i> , 2014, 84, 767-801.	2.1	23
42	Stable recovery of analysis based approaches. <i>Applied and Computational Harmonic Analysis</i> , 2015, 39, 161-172.	2.2	22
43	Symmetric canonical quincunx tight framelets with high vanishing moments and smoothness. <i>Mathematics of Computation</i> , 2017, 87, 347-379.	2.1	21
44	Homogeneous wavelets and framelets with the refinable structure. <i>Science China Mathematics</i> , 2017, 60, 2173-2198.	1.7	20
45	Riesz multiwavelet bases. <i>Applied and Computational Harmonic Analysis</i> , 2006, 20, 161-183.	2.2	18
46	Algorithms for matrix extension and orthogonal wavelet filter banks over algebraic number fields. <i>Mathematics of Computation</i> , 2012, 82, 459-490.	2.1	18
47	Stability of the elastic net estimator. <i>Journal of Complexity</i> , 2016, 32, 20-39.	1.3	18
48	Analysis and Construction of Multivariate Interpolating Refinable Function Vectors. <i>Acta Applicandae Mathematicae</i> , 2009, 107, 143-171.	1.0	17
49	Removal of Mixed Gaussian and Impulse Noise Using Directional Tensor Product Complex Tight Framelets. <i>Journal of Mathematical Imaging and Vision</i> , 2016, 54, 64-77.	1.3	17
50	Exploring wavelet applications in civil engineering. <i>KSCE Journal of Civil Engineering</i> , 2017, 21, 1076-1086.	1.9	17
51	Analysis of optimal bivariate symmetric refinable Hermite interpolants. <i>Communications on Pure and Applied Analysis</i> , 2007, 6, 689-718.	0.8	17
52	Sixth order compact finite difference schemes for Poisson interface problems with singular sources. <i>Computers and Mathematics With Applications</i> , 2021, 99, 2-25.	2.7	16
53	Design of Hermite Subdivision Schemes Aided by Spectral Radius Optimization. <i>SIAM Journal of Scientific Computing</i> , 2003, 25, 643-656.	2.8	14
54	A dual-chain approach for bottom-up construction of wavelet filters with any integer dilation. <i>Applied and Computational Harmonic Analysis</i> , 2012, 33, 204-225.	2.2	14

#	ARTICLE	IF	CITATIONS
55	Compactly Supported Tensor Product Complex Tight Framelets with Directionality. <i>SIAM Journal on Mathematical Analysis</i> , 2015, 47, 2464-2494.	1.9	14
56	Construction of wavelets and framelets on a bounded interval. <i>Analysis and Applications</i> , 2018, 16, 807-849.	2.2	12
57	Compactly supported quasi-tight multiframelets with high balancing orders and compact framelet transforms. <i>Applied and Computational Harmonic Analysis</i> , 2021, 51, 295-332.	2.2	10
58	Derivative-orthogonal Riesz wavelets in Sobolev spaces with applications to differential equations. <i>Applied and Computational Harmonic Analysis</i> , 2019, 47, 759-794.	2.2	9
59	On linear independence of integer shifts of compactly supported distributions. <i>Journal of Approximation Theory</i> , 2016, 201, 1-6.	0.8	8
60	Adaptive frame-based color image denoising. <i>Applied and Computational Harmonic Analysis</i> , 2016, 41, 54-74.	2.2	8
61	Applications of Framelets and Wavelets. <i>Applied and Numerical Harmonic Analysis</i> , 2017, , 579-666.	0.3	8
62	Directional compactly supported box spline tight framelets with simple geometric structure. <i>Applied Mathematics Letters</i> , 2019, 91, 213-219.	2.7	8
63	Quasi-tight framelets with high vanishing moments derived from arbitrary refinable functions. <i>Applied and Computational Harmonic Analysis</i> , 2020, 49, 123-151.	2.2	8
64	A hybrid quantization scheme for image compression. <i>Image and Vision Computing</i> , 2004, 22, 203-213.	4.5	7
65	Wavelets on intervals derived from arbitrary compactly supported biorthogonal multiwavelets. <i>Applied and Computational Harmonic Analysis</i> , 2021, 53, 270-331.	2.2	7
66	Dyadic Hermite interpolation on a square mesh. <i>Computer Aided Geometric Design</i> , 2005, 22, 727-752.	1.2	6
67	Generalized matrix spectral factorization and quasi-tight framelets with a minimum number of generators. <i>Mathematics of Computation</i> , 2020, 89, 2867-2911.	2.1	6
68	Multivariate quasi-tight framelets with high balancing orders derived from any compactly supported refinable vector functions. <i>Science China Mathematics</i> , 2022, 65, 81-110.	1.7	4
69	Dirac assisted tree method for 1D heterogeneous Helmholtz equations with arbitrary variable wave numbers. <i>Computers and Mathematics With Applications</i> , 2021, 97, 416-438.	2.7	4
70	IMAGE INPAINTING FROM PARTIAL NOISY DATA BY DIRECTIONAL COMPLEX TIGHT FRAMELETS. <i>ANZIAM Journal</i> , 2017, 58, 247-255.	0.2	3
71	Numerical solution of the viscous Burgers's equation using Localized Differential Quadrature method. <i>Partial Differential Equations in Applied Mathematics</i> , 2021, 4, 100044.	2.4	3
72	Analysis and Convergence of Hermite Subdivision Schemes. <i>Foundations of Computational Mathematics</i> , 2023, 23, 165-218.	2.5	3

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73	A high order compact finite difference scheme for elliptic interface problems with discontinuous and high-contrast coefficients. Applied Mathematics and Computation, 2022, 431, 127314.	2.2	3
74	Robustness properties of dimensionality reduction with Gaussian random matrices. Science China Mathematics, 2017, 60, 1753-1778.	1.7	2
75	Gibbs Phenomenon of Framelet Expansions and Quasi-projection Approximation. Journal of Fourier Analysis and Applications, 2019, 25, 2923-2956.	1.0	2
76	Wavelet Filter Banks. Applied and Numerical Harmonic Analysis, 2017, , 67-151.	0.3	1
77	Discrete Framelet Transforms. Applied and Numerical Harmonic Analysis, 2017, , 1-66.	0.3	0
78	Analysis of Refinable Vector Functions. Applied and Numerical Harmonic Analysis, 2017, , 371-483.	0.3	0
79	Framelet Filter Banks. Applied and Numerical Harmonic Analysis, 2017, , 153-244.	0.3	0
80	Analysis of Affine Systems and Dual Framelets. Applied and Numerical Harmonic Analysis, 2017, , 245-370.	0.3	0
81	Framelets and Wavelets Derived from Refinable Functions. Applied and Numerical Harmonic Analysis, 2017, , 485-577.	0.3	0
82	Microlocal Analysis and Characterization of Sobolev Wavefront Sets Using Shearlets. Constructive Approximation, 0, , 1.	3.0	0