

# Xiaosheng Zhuang

## List of Publications by Year in descending order

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44  
papers

635  
citations

566801

15  
h-index

610482

24  
g-index

44  
all docs

44  
docs citations

44  
times ranked

286  
citing authors

#	ARTICLE	IF	CITATIONS
1	ShearLab: A Rational Design of a Digital Parabolic Scaling Algorithm. <i>SIAM Journal on Imaging Sciences</i> , 2012, 5, 1291-1332.	1.3	79
2	Improved discriminate analysis for high-dimensional data and its application to face recognition. <i>Pattern Recognition</i> , 2007, 40, 1570-1578.	5.1	59
3	Inverse Fisher discriminate criteria for small sample size problem and its application to face recognition. <i>Pattern Recognition</i> , 2005, 38, 2192-2194.	5.1	49
4	Analysis of Inpainting via Clustered Sparsity and Microlocal Analysis. <i>Journal of Mathematical Imaging and Vision</i> , 2014, 48, 205-234.	0.8	38
5	Matrix Extension with Symmetry and Its Application to Symmetric Orthonormal Multiwavelets. <i>SIAM Journal on Mathematical Analysis</i> , 2010, 42, 2297-2317.	0.9	29
6	Directional tensor product complex tight framelets with low redundancy. <i>Applied and Computational Harmonic Analysis</i> , 2016, 41, 603-637.	1.1	28
7	Fast Haar Transforms for Graph Neural Networks. <i>Neural Networks</i> , 2020, 128, 188-198.	3.3	28
8	Generalized interpolating refinable function vectors. <i>Journal of Computational and Applied Mathematics</i> , 2009, 227, 254-270.	1.1	27
9	Smooth affine shear tight frames with MRA structure. <i>Applied and Computational Harmonic Analysis</i> , 2015, 39, 300-338.	1.1	26
10	Digital Shearlet Transforms. , 2012, , 239-282.		25
11	Symmetric canonical quincunx tight framelets with high vanishing moments and smoothness. <i>Mathematics of Computation</i> , 2017, 87, 347-379.	1.1	21
12	Matrix extension with symmetry and construction of biorthogonal multiwavelets with any integer dilation. <i>Applied and Computational Harmonic Analysis</i> , 2012, 33, 159-181.	1.1	20
13	Algorithms for matrix extension and orthogonal wavelet filter banks over algebraic number fields. <i>Mathematics of Computation</i> , 2012, 82, 459-490.	1.1	18
14	Digital Affine Shear Transforms: Fast Realization and Applications in Image/Video Processing. <i>SIAM Journal on Imaging Sciences</i> , 2016, 9, 1437-1466.	1.3	18
15	Analysis and Construction of Multivariate Interpolating Refinable Function Vectors. <i>Acta Applicandae Mathematicae</i> , 2009, 107, 143-171.	0.5	17
16	Gabor shearlets. <i>Applied and Computational Harmonic Analysis</i> , 2015, 38, 87-114.	1.1	15
17	Digital Affine Shear Filter Banks With 2-Layer Structure and Their Applications in Image Processing. <i>IEEE Transactions on Image Processing</i> , 2018, 27, 3931-3941.	6.0	15
18	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.	1.1	14

#	ARTICLE	IF	CITATIONS
19	Representation of functions on big data associated with directed graphs. Applied and Computational Harmonic Analysis, 2018, 44, 165-188.	1.1	13
20	Tight framelets and fast framelet filter bank transforms on manifolds. Applied and Computational Harmonic Analysis, 2020, 48, 64-95.	1.1	13
21	A Study Concerning Soft Computing Approaches for Stock Price Forecasting. Axioms, 2019, 8, 116.	0.9	11
22	Analysis of data separation and recovery problems using clustered sparsity. Proceedings of SPIE, 2011, , .	0.8	9
23	Matrix splitting with symmetry and dyadic framelet filter banks over algebraic number fields. Linear Algebra and Its Applications, 2012, 437, 2650-2679.	0.4	9
24	Directional Compactly Supported Tensor Product Complex Tight Framelets with Applications to Image Denoising and Inpainting. SIAM Journal on Imaging Sciences, 2019, 12, 1739-1771.	1.3	9
25	Directional compactly supported box spline tight framelets with simple geometric structure. Applied Mathematics Letters, 2019, 91, 213-219.	1.5	8
26	Dynamic spectral residual superpixels. Pattern Recognition, 2021, 112, 107705.	5.1	6
27	Tight framelets on graphs for multiscale data analysis. , 2019, , .		6
28	Adaptive Directional Haar Tight Framelets on Bounded Domains for Digraph Signal Representations. Journal of Fourier Analysis and Applications, 2021, 27, 1.	0.5	4
29	Regularization with multilevel non-stationary tight framelets for image restoration. Applied and Computational Harmonic Analysis, 2021, 53, 332-348.	1.1	4
30	Effect of levocetirizine hydrochloride on the growth of human dermal papilla cells: a preliminary study. Annals of Palliative Medicine, 2020, 9, 308-317.	0.5	3
31	A tailor-made 3-dimensional directional Haar semi-tight framelet for pMRI reconstruction. Applied and Computational Harmonic Analysis, 2022, 60, 446-470.	1.1	3
32	Multirate systems with shortest spline-wavelet filters. Applied and Computational Harmonic Analysis, 2016, 41, 266-296.	1.1	2
33	Quincunx Fundamental Refinable Functions in Arbitrary Dimensions. Axioms, 2017, 6, 20.	0.9	2
34	Compactly Supported Tensor Product Complex Tight Framelets with Directionality. , 2019, , .		2
35	Convolutional Neural Networks for Spherical Signal Processing via Area-Regular Spherical Haar Tight Framelets. IEEE Transactions on Neural Networks and Learning Systems, 2024, PP, 1-11.	7.2	2
36	Coarse quantization with the fast digital shearlet transform. Proceedings of SPIE, 2011, , .	0.8	1

#	ARTICLE	IF	CITATIONS
37	Digital affine shear filter banks with 2-layer structure. , 2017, , .		1
38	Parallel magnetic resonance imaging reconstruction algorithm by three-dimension directional Haar tight framelet regularization. , 2019, , .		1
39	The common Hardy space and BMO space for singular integral operators associated with isotropic and anisotropic homogeneity. Journal of Mathematical Analysis and Applications, 2014, 414, 480-487.	0.5	0
40	Smooth affine shear tight frames: digitization and applications. Proceedings of SPIE, 2015, , .	0.8	0
41	Linear Multiscale Transforms Based on Even-Reversible Subdivision Operators. Applied and Numerical Harmonic Analysis, 2021, , 297-319.	0.1	0
42	Face Recognition by Inverse Fisher Discriminant Features. Lecture Notes in Computer Science, 2005, , 92-98.	1.0	0
43	Matrix Extension with Symmetry and Its Applications. Springer Proceedings in Mathematics, 2012, , 375-415.	0.5	0
44	Affine shear tight frames with two-layer structure. , 2017, , .		0