

Akram Aldroubi

List of Publications by Year in descending order

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82
papers

6,334
citations

249298

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83
all docs

83
docs citations

83
times ranked

5594
citing authors

#	ARTICLE	IF	CITATIONS
1	The Signed Cumulative Distribution Transform for 1-D signal analysis and classification. , 2022, 4, 137.		1
2	Local-to-Global Frames and Applications to the Dynamical Sampling Problem. Applied and Numerical Harmonic Analysis, 2021, , 211-220.	0.1	0
3	Sampling the Flow of a Bandlimited Function. Journal of Geometric Analysis, 2021, 31, 9241-9275.	0.5	9
4	Radon Cumulative Distribution Transform Subspace Modeling for Image Classification. Journal of Mathematical Imaging and Vision, 2021, 63, 1185-1203.	0.8	11
5	CUR Decompositions, Similarity Matrices, and Subspace Clustering. Frontiers in Applied Mathematics and Statistics, 2019, 4, .	0.7	15
6	Dynamical Sampling with a Burst-like Forcing Term. , 2019, , .		0
7	Similarity matrix framework for data from union of subspaces. Applied and Computational Harmonic Analysis, 2018, 45, 425-435.	1.1	12
8	Dynamical Sampling with Additive Random Noise. Sampling Theory in Signal and Information Processing, 2018, 17, 153-182.	0.2	7
9	Dynamical sampling with random noise. , 2017, , .		2
10	Principal coordinate clustering. , 2017, , .		1
11	Matrix reconstruction: Skeleton decomposition versus singular value decomposition. , 2017, , .		1
12	Phase retrieval of evolving signals from space-time samples. , 2017, , .		3
13	Dynamical Sampling and Systems from Iterative Actions of Operators. Applied and Numerical Harmonic Analysis, 2017, , 15-26.	0.1	23
14	Skeleton decomposition analysis for subspace clustering. , 2016, , .		0
15	Krylov Subspace Methods in Dynamical Sampling. Sampling Theory in Signal and Information Processing, 2016, 15, 9-20.	0.2	6
16	Dynamical sampling with an additive forcing term. , 2015, , .		0
17	Finite Dimensional Dynamical Sampling: An Overview. Applied and Numerical Harmonic Analysis, 2015, , 231-244.	0.1	3
18	Reduced row echelon form and non-linear approximation for subspace segmentation and high-dimensional data clustering. Applied and Computational Harmonic Analysis, 2014, 37, 271-287.	1.1	3

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19	Subspace and motion segmentation via local subspace estimation. , 2013, , .		2
20	Dynamical sampling: Time–space trade-off. Applied and Computational Harmonic Analysis, 2013, 34, 495-503.	1.1	57
21	Nonlinear approximations for motion and subspace segmentation. , 2013, , .		0
22	A Review of Subspace Segmentation: Problem, Nonlinear Approximations, and Applications to Motion Segmentation. ISRN Signal Processing, 2013, 2013, 1-13.	2.9	10
23	Unions of Subspaces for Data Modeling and Subspace Clustering. , 2013, , 5-18.		0
24	A unified approach to sparse signal processing. Eurasip Journal on Advances in Signal Processing, 2012, 2012, .	1.0	73
25	Nearness to Local Subspace Algorithm for Subspace and Motion Segmentation. IEEE Signal Processing Letters, 2012, 19, 704-707.	2.1	14
26	Perturbations of measurement matrices and dictionaries in compressed sensing. Applied and Computational Harmonic Analysis, 2012, 33, 282-291.	1.1	40
27	Principal shift-invariant spaces with extra invariance nearest to observed data. Collectanea Mathematica, 2012, 63, 393-401.	0.4	8
28	On the Existence of Optimal Unions of Subspaces for Data Modeling and Clustering. Foundations of Computational Mathematics, 2011, 11, 363-379.	1.5	11
29	Uncertainty principles and Balian–Low type theorems in principal shift-invariant spaces. Applied and Computational Harmonic Analysis, 2011, 30, 337-347.	1.1	16
30	A Dimension Reduction Scheme for the Computation of Optimal Unions of Subspaces. Sampling Theory in Signal and Information Processing, 2011, 10, 135-150.	0.2	2
31	Sequential Adaptive Compressed Sampling via Huffman Codes. Sampling Theory in Signal and Information Processing, 2011, 10, 231-254.	0.2	2
32	Invariance of a Shift-Invariant Space. Journal of Fourier Analysis and Applications, 2010, 16, 60-75.	0.5	29
33	Minimum subspace approximation property for sparse approximations in finite dimension. , 2010, , .		0
34	Nonlinear Least Squares in \mathbb{R}^N . Acta Applicandae Mathematicae, 2009, 107, 325-337.	0.5	16
35	On stability of sampling-reconstruction models. Advances in Computational Mathematics, 2009, 31, 5-34.	0.8	19
36	An adaptive and information theoretic method For compressed sampling. , 2009, , .		2

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37	Optimal Non-Linear Models for Sparsity and Sampling. Journal of Fourier Analysis and Applications, 2008, 14, 793-812.	0.5	33
38	Slanted matrices, Banach frames, and sampling. Journal of Functional Analysis, 2008, 255, 1667-1691.	0.7	60
39	Error Analysis of Frame Reconstruction From Noisy Samples. IEEE Transactions on Signal Processing, 2008, 56, 2311-2325.	3.2	17
40	Non-Uniform Sampling and Reconstruction from Sampling Sets with Unknown Jitter. Sampling Theory in Signal and Information Processing, 2008, 7, 187-195.	0.2	7
41	On slanted matrices in frame theory. , 2007, , .		2
42	An image-processing toolset for diffusion tensor tractography. Magnetic Resonance Imaging, 2007, 25, 365-376.	1.0	8
43	Optimal shift invariant spaces and their Parseval frame generators. Applied and Computational Harmonic Analysis, 2007, 23, 273-283.	1.1	28
44	Improved fiber tractography with Bayesian tensor regularization. NeuroImage, 2006, 31, 1061-1074.	2.1	25
45	Robustness of sampling and reconstruction and Beurling's Landau-type theorems for shift-invariant spaces. Applied and Computational Harmonic Analysis, 2006, 20, 250-260.	1.1	16
46	Continuous Tensor Field Approximation of Diffusion Tensor MRI data. Mathematics and Visualization, 2006, , 299-314.	0.4	4
47	Learning the Right Model from the Data. , 2006, , 325-333.		0
48	Convolution, Average Sampling, and a Calderon Resolution of the Identity for Shift-Invariant Spaces. Journal of Fourier Analysis and Applications, 2005, 11, 215-244.	0.5	86
49	Nonuniform Average Sampling and Reconstruction in Multiply Generated Shift-Invariant Spaces. Constructive Approximation, 2004, 20, 173-189.	1.8	65
50	The adaptive bases algorithm for intensity-based nonrigid image registration. IEEE Transactions on Medical Imaging, 2003, 22, 1470-1479.	5.4	361
51	Locally finite dimensional shift-invariant spaces in \mathbb{R}^d . Proceedings of the American Mathematical Society, 2002, 130, 2641-2654.	0.4	6
52	A Continuous Tensor Field Approximation of Discrete DT-MRI Data for Extracting Microstructural and Architectural Features of Tissue. Journal of Magnetic Resonance, 2002, 154, 85-100.	1.2	135
53	Non-uniform weighted average sampling and reconstruction in shift-invariant and wavelet spaces. Applied and Computational Harmonic Analysis, 2002, 13, 151-161.	1.1	119
54	NON-UNIFORM SAMPLING: EXACT RECONSTRUCTION FROM NON-UNIFORMLY DISTRIBUTED WEIGHTED-AVERAGES. , 2002, , .		9

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55	Nonuniform Sampling and Reconstruction in Shift-Invariant Spaces. SIAM Review, 2001, 43, 585-620.	4.2	586
56	<title>Adaptive free-form deformation for interpatient medical image registration</title>. , 2001, , .		10
57	p-Frames and Shift Invariant Subspaces of L^p . Journal of Fourier Analysis and Applications, 2001, 7, 1-22.	0.5	119
58	Multiscale nonrigid data registration using adaptive basis functions. , 2000, 4119, 1076.		1
59	In vivo fiber tractography using DT-MRI data. Magnetic Resonance in Medicine, 2000, 44, 625-632.	1.9	2,778
60	Beurling-Landau-type theorems for non-uniform sampling in shift invariant spline spaces. Journal of Fourier Analysis and Applications, 2000, 6, 93-103.	0.5	126
61	In vivo fiber tractography using DT-MRI data. , 2000, 44, 625.		21
62	Exact iterative reconstruction algorithm for multivariate irregularly sampled functions in spline-like spaces: The L^p -theory. Proceedings of the American Mathematical Society, 1998, 126, 2677-2686.	0.4	161
63	Oblique and Hierarchical Multiwavelet Bases. Applied and Computational Harmonic Analysis, 1997, 4, 231-263.	1.1	28
64	Oblique Multiwavelet Bases. , 1997, , 73-91.		0
65	<title>Construction of shift-orthogonal wavelets using splines</title>. , 1996, 2825, 465.		0
66	<title>Oblique multiwavelet bases: examples</title>. , 1996, , .		1
67	Oblique projections in atomic spaces. Proceedings of the American Mathematical Society, 1996, 124, 2051-2060.	0.4	73
68	<title>Oblique and biorthogonal multiwavelet bases with fast-filtering algorithms</title>. , 1995, , .		3
69	Determination of Optimally Resolving Gel Concentration and Migration Time (Path) in Gel Electrophoresis. Analytical Biochemistry, 1995, 231, 432-436.	1.1	5
70	Designing Multiresolution Analysis-type Wavelets and Their Fast Algorithms. Journal of Fourier Analysis and Applications, 1995, 2, 135-159.	0.5	37
71	Portraits of frames. Proceedings of the American Mathematical Society, 1995, 123, 1661-1668.	0.4	77
72	Sampling procedures in function spaces and asymptotic equivalence with shannon's sampling theory. Numerical Functional Analysis and Optimization, 1994, 15, 1-21.	0.6	199

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73	Fast wavelet transformation of EEG. <i>Electroencephalography and Clinical Neurophysiology</i> , 1994, 91, 442-455.	0.3	185
74	Discrete Spline Filters for Multiresolutions and Wavelets of L_2 . <i>SIAM Journal on Mathematical Analysis</i> , 1994, 25, 1412-1432.	0.9	55
75	Relative efficiency of molecular sieving in solutions of four polymers. <i>Electrophoresis</i> , 1993, 14, 18-22.	1.3	44
76	A family of polynomial spline wavelet transforms. <i>Signal Processing</i> , 1993, 30, 141-162.	2.1	185
77	Families of multiresolution and wavelet spaces with optimal properties. <i>Numerical Functional Analysis and Optimization</i> , 1993, 14, 417-446.	0.6	111
78	Polynomial Splines and Wavelets-A Signal Processing Perspective. , 1992, , 91-122.		53
79	Advances in DNA electrophoresis in polymer solutions. <i>Electrophoresis</i> , 1992, 13, 614-616.	1.3	29
80	Families of Wavelet Transforms in Connection with Shannon's Sampling Theory and the Gabor Transform. , 1992, , 509-528.		40
81	Computerized methods for analyzing two-dimensional agarose gel electropherograms. <i>Electrophoresis</i> , 1991, 12, 39-46.	1.3	10
82	The distribution of particles characterized by size and free mobility within polydisperse populations of protein-polysaccharide conjugates, determined from two-dimensional agarose electropherograms. <i>Electrophoresis</i> , 1991, 12, 46-54.	1.3	15