Demetrio Labate

List of Publications by Year
in descending order

100	4,327	218381	118652
papers	citations	26 h-index	62 g-index

101	101	101	1913
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Learning Based Framework for Disease Prediction from Images of Human-Derived Pluripotent Stem Cells of Schizophrenia Patients. Neuroinformatics, 2022, 20, 513-523.	1.5	1
2	A Multiscale Deep Learning Approach for High-Resolution Hyperspectral Image Classification. IEEE Geoscience and Remote Sensing Letters, 2021, 18, 167-171.	1.4	31
3	Optimally Sparse Representations of Cartoon-Like Cylindrical Data. Journal of Geometric Analysis, 2021, 31, 8926-8946.	0.5	0
4	Stable recovery of planar regions with algebraic boundaries in Bernstein form. Advances in Computational Mathematics, 2021, 47, 1.	0.8	0
5	Inhibition of AKT Signaling Alters Î²IV Spectrin Distribution at the AIS and Increases Neuronal Excitability. Frontiers in Molecular Neuroscience, 2021, 14, 643860.	1.4	3
6	Image inpainting using sparse multiscale representations: Image recovery performance guarantees. Applied and Computational Harmonic Analysis, 2020, 49, 343-380.	1.1	5
7	A multistep deep learning framework for the automated detection and segmentation of astrocytes in fluorescent images of brain tissue. Scientific Reports, 2020, 10, 5137.	1.6	21
8	Robust and stable region-of-interest tomographic reconstruction using a robust width prior. Inverse Problems and Imaging, 2020, 14, 291-316.	0.6	1
9	Quantitative Methods in Ocular Fundus Imaging: Analysis of Retinal Microvasculature. Applied and Numerical Harmonic Analysis, 2020, , 157-174.	0.1	0
10	Imaging of the Axon Initial Segment. Current Protocols in Neuroscience, 2019, 89, e78.	2.6	3
11	Directional multiscale representations and applications in digital neuron reconstruction. Journal of Computational and Applied Mathematics, 2019, 349, 482-493.	1.1	4
12	Smooth projections and the construction of smooth Parseval frames of shearlets. Advances in Computational Mathematics, 2019, 45, 3241-3264.	0.8	4
13	Geometric Separation in $$mathbb {R}^3$$ R 3. Journal of Fourier Analysis and Applications, 2019, 25, 108-130.	0.5	1
14	Optical compressive sensing technologies for space applications: instrumental concepts and performance analysis. , 2019, , .		1
15	Structured receptive field networks and applications to hyperspectral image classification. , 2019, , .		5
16	Automated sorting of neuronal trees in fluorescent images of neuronal networks using NeuroTreeTracer. Scientific Reports, 2018, 8, 6450.	1.6	12
17	Statistical binary patterns and post-competitive representation for pattern recognition. International Journal of Machine Learning and Cybernetics, 2018, 9, 1023-1038.	2.3	4
18	Detection of Singularities by Discrete Multiscale Directional Representations. Journal of Geometric Analysis, 2018, 28, 2102-2128.	0.5	10

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19	Shearlet-based regularized reconstruction in region-of-interest computed tomography. Mathematical Modelling of Natural Phenomena, 2018, 13, 34.	0.9	2
20	ROI reconstruction from truncated cone-beam projections. Inverse Problems and Imaging, 2018, 12, 29-57.	0.6	2
21	Coorbit Spaces with Voice in a FrÃ©chet Space. Journal of Fourier Analysis and Applications, 2017, 23, 141-206.	0.5	14
22	Morphologically Decoupled Structured Sparsity for Rotation-Invariant Hyperspectral Image Analysis. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 4355-4366.	2.7	20
23	Rotation invariance through structured sparsity for robust hyperspectral image classification. , 2017, , .		3
24	Automated 3-D Detection of Dendritic Spines from In Vivo Two-Photon Image Stacks. Neuroinformatics, 2017, 15, 303-319.	1.5	9
25	Microlocal analysis of edge flatness through directional multiscale representations. Advances in Computational Mathematics, 2017, 43, 295-318.	0.8	3
26	Multiscale Analysis of Neurite Orientation and Spatial Organization in Neuronal Images. Neuroinformatics, 2016, 14, 465-477.	1.5	4
27	Genetic deletion of fibroblast growth factor 14 recapitulates phenotypic alterations underlying cognitive impairment associated with schizophrenia. Translational Psychiatry, 2016, 6, e806-e806.	2.4	21
28	Characterization and analysis of edges in piecewise smooth functions. Applied and Computational Harmonic Analysis, 2016, 41, 139-163.	1.1	9
29	Directional analysis of 3D tubular structures via isotropic well-localized atoms. Applied and Computational Harmonic Analysis, 2016, 40, 588-599.	1.1	3
30	Improved detection of soma location and morphology in fluorescence microscopy images of neurons. Journal of Neuroscience Methods, 2016, 274, 61-70.	1.3	28
31	Detection of boundary curves on the piecewise smooth boundary surface of three dimensional solids. Applied and Computational Harmonic Analysis, 2016, 40, 137-171.	1.1	5
32	Automated Detection of Soma Location and Morphology in Neuronal Network Cultures. PLoS ONE, 2015, 10, e0121886.	1.1	27
33	Directional ratio based on parabolic molecules and its application to the analysis of tubular structures. , 2015, , .		0
34	The Nav1.2 channel is regulated by GSK3. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 832-844.	1.1	33
35	Regularized directional feature learning for face recognition. Multimedia Tools and Applications, 2015, 74, 11281-11295.	2.6	4
36	Improved Automatic Centerline Tracing for Dendritic and Axonal Structures. Neuroinformatics, 2015, 13, 227-244.	1.5	15

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37	A two-stage shearlet-based approach for the removal of random-valued impulse noise in images. Journal of Visual Communication and Image Representation, 2015, 32, 83-94.	1.7	13
38	Geometric Separation of Singularities Using Combined Multiscale Dictionaries. Journal of Fourier Analysis and Applications, 2015, 21, 667-693.	0.5	7
39	Image registration using the shearlet transform. , 2015, , .		1
40	Sparse multi-stage regularized feature learning for robust face recognition. Expert Systems With Applications, 2015, 42, 269-279.	4.4	11
41	From Group Representations to Signal Analysis. Applied and Numerical Harmonic Analysis, 2015, , 1-5.	0.1	1
42	Efficient Analysis and Detection of Edges Through Directional Multiscale Representations. Applied and Numerical Harmonic Analysis, 2015, , 149-197.	0.1	0
43	Face, gender and race classification using multi-regularized features learning. , 2014, , .		3
44	Regularized Shearlet Network for face recognition using single sample per person. , 2014, , .		13
45	ShearFace: Efficient Extraction of Anisotropic Features for Face Recognition. , 2014, , .		5
46	Sparse Multi-regularized Shearlet-Network Using Convex Relaxation for Face Recognition. , 2014, , .		3
47	Efficient Processing of Fluorescence Images Using Directional Multiscale Representations. Mathematical Modelling of Natural Phenomena, 2014, 9, 177-193.	0.9	16
48	Directional Multiscale Processing of Images Using Wavelets with Composite Dilations. Journal of Mathematical Imaging and Vision, 2014, 48, 13-34.	0.8	14
49	Discrete shearlet transform on GPU with applications in anomaly detection and denoising. Eurasip Journal on Advances in Signal Processing, 2014, 2014, .	1.0	25
50	Microlocal Analysis of Singularities from Directional Multiscale Representations. Springer Proceedings in Mathematics and Statistics, 2014, , 173-196.	0.1	3
51	Shearlet Smoothness Spaces. Journal of Fourier Analysis and Applications, 2013, 19, 577-611.	0.5	33
52	Optimal recovery of 3D X-ray tomographic data via shearlet decomposition. Advances in Computational Mathematics, 2013, 39, 227-255.	0.8	8
53	Optimal restoration of noisy 3D x-ray data via shearlet decompositions. , 2013, , .		0
54	Directional and non-directional representations for the characterization of neuronal morphology. , 2013, , .		4

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55	The Construction of Smooth Parseval Frames of Shearlets. Mathematical Modelling of Natural Phenomena, 2013, 8, 82-105.	0.9	62
56	Improved automatic centerline tracing for dendritic structures. , 2013, , .		6
57	Shearlet Network-based Sparse Coding Augmented by Facial Texture Features for Face Recognition. Lecture Notes in Computer Science, 2013, , 611-620.	1.0	14
58	Wavelets. Notices of the American Mathematical Society, 2013, 60, 66.	0.1	17
59	A Harmonic Analysis View on Neuroscience Imaging. , 2013, , 423-450.		0
60	Hyperbolic shearlets. , 2012, , .		1
61	Optimally Sparse Representations of 3D Data with C^2 Surface Singularities Using Parseval Frames of Shearlets. SIAM Journal on Mathematical Analysis, 2012, 44, 851-886.	0.9	36
62	Image Processing Using Shearlets. , 2012, , 283-325.		20
63	3-D Discrete Shearlet Transform and Video Processing. IEEE Transactions on Image Processing, 2012, 21, 2944-2954.	6.0	69
64	Characterization of Piecewise-Smooth Surfaces Using the 3D Continuous Shearlet Transform. Journal of Fourier Analysis and Applications, 2012, 18, 488-516.	0.5	30
65	Critically Sampled Wavelets With Composite Dilations. IEEE Transactions on Image Processing, 2012, 21, 550-561.	6.0	11
66	Introduction to Shearlets. Applied and Numerical Harmonic Analysis, 2012, , 1-38.	0.1	56
67	Analysis and Identification of Multidimensional Singularities Using the Continuous Shearlet Transform. Applied and Numerical Harmonic Analysis, 2012, , 69-103.	0.1	7
68	Searchlight CT: A new reconstruction method for collimated X-ray tomography. , 2012, , .		0
69	Optimally sparse shearlet approximations of 3D data. Proceedings of SPIE, 2011, , .	0.8	2
70	3D discrete shearlet transform and video denoising. , 2011, , .		4
71	Multicomposite wavelet estimation. , 2011, , .		0
72	Analysis and detection of surface discontinuities using the 3D continuous shearlet transform. Applied and Computational Harmonic Analysis, 2011, 30, 231-242.	1.1	43

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73	Mini-Workshop: Shearlets. Oberwolfach Reports, 2011, 7, 2573-2611.	0.0	1
74	Radon transform inversion using the shearlet representation. Applied and Computational Harmonic Analysis, 2010, 29, 232-250.	1.1	65
75	Continuous and Discrete Reproducing Systems That Arise from Translations. Theory and Applications of Composite Wavelets. Applied and Numerical Harmonic Analysis, 2010, , 87-130.	0.1	3
76	Optimally sparse 3D approximations using shearlet representations. Electronic Research Announcements in Mathematical Sciences, 2010, 17, 125-137.	0.6	5
77	Resolution of the wavefront set using continuous shearlets. Transactions of the American Mathematical Society, 2009, 361, 2719-2754.	0.5	212
78	Improved radon based imaging using the shearlet transform. Proceedings of SPIE, 2009, , .	0.8	5
79	Edge analysis and identification using the continuous shearlet transform. Applied and Computational Harmonic Analysis, 2009, 27, 24-46.	1.1	123
80	Shearlet-Based Total Variation Diffusion for Denoising. IEEE Transactions on Image Processing, 2009, 18, 260-268.	6.0	188
81	Critically sampled composite wavelets. , 2009, , .		2
82	Characterization and Analysis of Edges Using the Continuous Shearlet Transform. SIAM Journal on Imaging Sciences, 2009, 2, 959-986.	1.3	86
83	A Shearlet Approach to Edge Analysis and Detection. IEEE Transactions on Image Processing, 2009, 18, 929-941.	6.0	279
84	Representation of Fourier Integral Operators Using Shearlets. Journal of Fourier Analysis and Applications, 2008, 14, 327-371.	0.5	41
85	Sparse directional image representations using the discrete shearlet transform. Applied and Computational Harmonic Analysis, 2008, 25, 25-46.	1.1	924
86	Edge detection and processing using shearlets. , 2008, , .		10
87	Optimally Sparse Multidimensional Representation Using Shearlets. SIAM Journal on Mathematical Analysis, 2007, 39, 298-318.	0.9	619
88	Optimally Sparse Image Representations using Shearlets. , 2006, , .		35
89	Wavelets with composite dilations and their MRA properties. Applied and Computational Harmonic Analysis, 2006, 20, 202-236.	1.1	172
90	The Theory of Wavelets with Composite Dilations. , 2006, , 231-250.		59

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91	The theory of reproducing systems on locally compact abelian groups. Colloquium Mathematicum, 2006, 106, 197-220.	0.2	22
92	Connectivity in the set of Gabor frames. Applied and Computational Harmonic Analysis, 2005, 18, 123-136.	1.1	1
93	Sparse multidimensional representation using shearlets. , 2005, , .		233
94	Oversampling, quasi-affine frames, and wave packets. Applied and Computational Harmonic Analysis, 2004, 16, 111-147.	1.1	48
95	Wavelets with composite dilations. Electronic Research Announcements in Mathematical Sciences, 2004, 10, 78-87.	0.7	92
96	Affine, Quasi-Affine and Co-Affine Wavelets. Studies in Computational Mathematics, 2003, 10, 215-223.	0.2	9
97	A unified characterization of reproducing systems generated by a finite family. Journal of Geometric Analysis, 2002, 12, 469-491.	0.5	33
98	A unified characterization of reproducing systems generated by a finite family, II. Journal of Geometric Analysis, 2002, 12, 615-662.	0.5	110
99	Time-Frequency Analysis of Pseudodifferential Operators. Monatshefte Fur Mathematik, 2001, 133, 143-156.	0.5	23
100	Pseudodifferential Operators on Modulation Spaces. Journal of Mathematical Analysis and Applications, 2001, 262, 242-255.	0.5	47