

Mauro Maggioni

List of Publications by Year in descending order

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69
papers

3,813
citations

331670

21
h-index

302126

39
g-index

69
all docs

69
docs citations

69
times ranked

3584
citing authors

#	ARTICLE	IF	CITATIONS
1	Multiscale regression on unknown manifolds. <i>Mathematics in Engineering</i> , 2022, 4, 1-25.	0.9	3
2	Anatomically informed deep learning on contrast-enhanced cardiac magnetic resonance imaging for scar segmentation and clinical feature extraction. <i>Cardiovascular Digital Health Journal</i> , 2022, 3, 2-13.	1.3	14
3	Arrhythmic sudden death survival prediction using deep learning analysis of scarring in the heart. , 2022, 1, 334-343.		43
4	On the identifiability of interaction functions in systems of interacting particles. <i>Stochastic Processes and Their Applications</i> , 2021, 132, 135-163.	0.9	10
5	Supervised dimensionality reduction for big data. <i>Nature Communications</i> , 2021, 12, 2872.	12.8	20
6	Spectral Spatial Diffusion Geometry for Hyperspectral Image Clustering. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2020, 17, 1243-1247.	3.1	18
7	Data-driven discovery of emergent behaviors in collective dynamics. <i>Physica D: Nonlinear Phenomena</i> , 2020, 411, 132542.	2.8	12
8	Substrate Spatial Complexity Analysis for the Prediction of Ventricular Arrhythmias in Patients With Ischemic Cardiomyopathy. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2020, 13, e007975.	4.8	33
9	Nonparametric inference of interaction laws in systems of agents from trajectory data. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 14424-14433.	7.1	53
10	Unsupervised Discriminative Dimension Reduction for Hyperspectral Chemical Plume Segmentation. , 2019, , .		1
11	Unsupervised Clustering and Active Learning of Hyperspectral Images With Nonlinear Diffusion. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2019, 57, 1829-1845.	6.3	56
12	Discovering and deciphering relationships across disparate data modalities. <i>ELife</i> , 2019, 8, .	6.0	16
13	A Biased Kaczmarz Algorithm for Clustered Equations. <i>Springer Proceedings in Mathematics and Statistics</i> , 2019, , 447-456.	0.2	0
14	Iterative active learning with diffusion geometry for hyperspectral images. , 2018, , .		4
15	Learning and Exploiting Physics of Degradations. , 2018, , .		0
16	Diffusion geometric methods for fusion of remotely sensed data. , 2018, , .		4
17	Multiscale geometric methods for data sets I: Multiscale SVD, noise and curvature. <i>Applied and Computational Harmonic Analysis</i> , 2017, 43, 504-567.	2.2	28
18	ATLAS: A Geometric Approach to Learning High-Dimensional Stochastic Systems Near Manifolds. <i>Multiscale Modeling and Simulation</i> , 2017, 15, 110-156.	1.6	11

#	ARTICLE	IF	CITATIONS
19	Inferring interaction rules from observations of evolutive systems I: The variational approach. <i>Mathematical Models and Methods in Applied Sciences</i> , 2017, 27, 909-951.	3.3	28
20	ROFLMAO: Robust Oblique Forests with Linear Matrix Operations. , 2017, , 498-506.		4
21	Learning adaptive multiscale approximations to data and functions near low-dimensional sets. , 2016, , .		5
22	Beauty is in the bid of the beholder: An empirical basis for style. <i>Research in Economics</i> , 2016, 70, 388-402.	0.8	8
23	Object recognition in art drawings: Transfer of a neural network. , 2016, , .		11
24	High-Dimensional Data Modeling Techniques for Detection of Chemical Plumes and Anomalies in Hyperspectral Images and Movies. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2016, 9, 4316-4324.	4.9	9
25	Enhanced detection of chemical plumes in hyperspectral images and movies through improved background modeling. , 2015, , .		0
26	Geometric multi-resolution analysis for dictionary learning. , 2015, , .		0
27	Geometry of Data and Biology. <i>Notices of the American Mathematical Society</i> , 2015, 62, 1185-1188.	0.2	0
28	Genomic Characterization of Large Heterochromatic Gaps in the Human Genome Assembly. <i>PLoS Computational Biology</i> , 2014, 10, e1003628.	3.2	99
29	Dictionary Learning and Non-Asymptotic Bounds for Geometric Multi-Resolution Analysis. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2014, 14, 1013-1016.	0.2	4
30	Branched-chain amino acids alter neurobehavioral function in rats. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2013, 304, E405-E413.	3.5	45
31	Multi-Resolution Geometric Analysis for Data in High Dimensions. , 2013, , 259-285.		3
32	Multiscale dictionaries, transforms, and learning in high-dimensions. <i>Proceedings of SPIE</i> , 2013, , .	0.8	0
33	Approximation of points on low-dimensional manifolds via random linear projections. <i>Information and Inference</i> , 2013, 2, 1-31.	1.6	16
34	Geometric estimation of probability measures in high-dimensions. , 2013, , .		2
35	Multiscale, dictionary-based speckle denoising. , 2013, , .		0
36	Geometric multiscale reduction for autonomous and controlled nonlinear systems. , 2012, , .		1

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37	Efficient solution of Markov decision problems with multiscale representations. , 2012, , .		2
38	A fast multiscale framework for data in high-dimensions: Measure estimation, anomaly detection, and compressive measurements. , 2012, , .		10
39	Multi-scale geometric methods for data sets II: Geometric Multi-Resolution Analysis. Applied and Computational Harmonic Analysis, 2012, 32, 435-462.	2.2	82
40	Multiscale geometric and spectral analysis of plane arrangements. , 2011, , .		9
41	Determination of reaction coordinates via locally scaled diffusion map. Journal of Chemical Physics, 2011, 134, 124116.	3.0	212
42	Polymer reversal rate calculated via locally scaled diffusion map. Journal of Chemical Physics, 2011, 134, 144109.	3.0	44
43	Some Recent Advances in Multiscale Geometric Analysis of Point Clouds. Applied and Numerical Harmonic Analysis, 2011, , 199-225.	0.3	11
44	Research on online social networks. Performance Evaluation Review, 2010, 37, 49-54.	0.6	23
45	Data representation and exploration with Geometric Wavelets. , 2010, , .		1
46	Multiscale geometric wavelets for the analysis of point clouds. , 2010, , .		11
47	Universal local parametrizations via heat kernels and eigenfunctions of the Laplacian. Annales Academiae Scientiarum Fennicae Mathematica, 2010, 35, 131-174.	0.7	22
48	Estimation of intrinsic dimensionality of samples from noisy low-dimensional manifolds in high dimensions with multiscale SVD. , 2009, , .		29
49	Diffusion polynomial frames on metric measure spaces. Applied and Computational Harmonic Analysis, 2008, 24, 329-353.	2.2	71
50	Diffusion Maps, Reduction Coordinates, and Low Dimensional Representation of Stochastic Systems. Multiscale Modeling and Simulation, 2008, 7, 842-864.	1.6	215
51	Tensor-CUR Decompositions for Tensor-Based Data. SIAM Journal on Matrix Analysis and Applications, 2008, 30, 957-987.	1.4	73
52	Manifold parametrizations by eigenfunctions of the Laplacian and heat kernels. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 1803-1808.	7.1	111
53	Diffusion wavelets. Applied and Computational Harmonic Analysis, 2006, 21, 53-94.	2.2	527
54	Diffusion wavelet packets. Applied and Computational Harmonic Analysis, 2006, 21, 95-112.	2.2	49

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55	Fast direct policy evaluation using multiscale analysis of Markov diffusion processes. , 2006, , .		16
56	Hyperspectral microscopic analysis of normal, benign and carcinoma microarray tissue sections. , 2006, , .		18
57	Geometries of sensor outputs, inference, and information processing. , 2006, , .		9
58	Biorthogonal diffusion wavelets for multiscale representations on manifolds and graphs. , 2005, , .		19
59	Diffusion-driven multiscale analysis on manifolds and graphs: top-down and bottom-up constructions. , 2005, , .		27
60	Geometric diffusions for the analysis of data from sensor networks. Current Opinion in Neurobiology, 2005, 15, 576-584.	4.2	14
61	Geometric diffusions as a tool for harmonic analysis and structure definition of data: Multiscale methods. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 7432-7437.	7.1	179
62	Geometric diffusions as a tool for harmonic analysis and structure definition of data: Diffusion maps. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 7426-7431.	7.1	1,314
63	Wavelet Frames on Groups and Hypergroups via Discretization of Calderř½n Formulas. Monatshefte Fur Mathematik, 2004, 143, 299-331.	0.9	4
64	Multiscale Approximation With Hierarchical Radial Basis Functions Networks. IEEE Transactions on Neural Networks, 2004, 15, 178-188.	4.2	85
65	Characterization of General Tight Wavelet Frames with Matrix Dilations and Tightness Preserving Oversampling. Journal of Fourier Analysis and Applications, 2002, 8, 173-200.	1.0	48
66	Remarks on the box problem. Mathematical Research Letters, 2002, 9, 515-519.	0.5	7
67	M-Band Burt-Adelson Biorthogonal Wavelets. Applied and Computational Harmonic Analysis, 2000, 9, 286-311.	2.2	2
68	Critical Exponent of Short Even Filters and Burt-Adelson Biorthogonal Wavelets. Monatshefte Fur Mathematik, 2000, 131, 49-69.	0.9	0
69	Learning Interaction Kernels in Stochastic Systems of Interacting Particles from Multiple Trajectories. Foundations of Computational Mathematics, 0, , 1.	2.5	8