

# Mauro Maggioni

## List of Publications by Year in Descending Order

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**Version:** 2024-04-27

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

60  
papers

2,717  
citations

18  
h-index

52  
g-index

69  
ext. papers

3,278  
ext. citations

3.9  
avg, IF

5.12  
L-index

#	Paper	IF	Citations
60	Anatomically informed deep learning on contrast-enhanced cardiac magnetic resonance imaging for scar segmentation and clinical feature extraction.. <i>Cardiovascular Digital Health Journal</i> , <b>2022</b> , 3, 2-13 <sup>2</sup>		2
59	Multiscale regression on unknown manifolds. <i>Mathematics in Engineering</i> , <b>2022</b> , 4, 1-25	1.2	2
58	Arrhythmic sudden death survival prediction using deep learning analysis of scarring in the heart. <b>2022</b> , 1, 334-343		3
57	Supervised dimensionality reduction for big data. <i>Nature Communications</i> , <b>2021</b> , 12, 2872	17.4	3
56	On the identifiability of interaction functions in systems of interacting particles. <i>Stochastic Processes and Their Applications</i> , <b>2021</b> , 132, 135-163	1.1	1
55	Data-driven discovery of emergent behaviors in collective dynamics. <i>Physica D: Nonlinear Phenomena</i> , <b>2020</b> , 411,	3.3	6
54	Substrate Spatial Complexity Analysis for the Prediction of Ventricular Arrhythmias in Patients With Ischemic Cardiomyopathy. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2020</b> , 13, e007975	6.4	11
53	Spectral Spatial Diffusion Geometry for Hyperspectral Image Clustering. <i>IEEE Geoscience and Remote Sensing Letters</i> , <b>2020</b> , 17, 1243-1247	4.1	12
52	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> , <b>2019</b> , 116, 14424-14433	11.5	21
51	Discovering and deciphering relationships across disparate data modalities. <i>ELife</i> , <b>2019</b> , 8,	8.9	12
50	A Biased Kaczmarz Algorithm for Clustered Equations. <i>Springer Proceedings in Mathematics and Statistics</i> , <b>2019</b> , 447-456	0.2	
49	Unsupervised Clustering and Active Learning of Hyperspectral Images With Nonlinear Diffusion. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , <b>2019</b> , 57, 1829-1845	8.1	41
48	Multiscale geometric methods for data sets I: Multiscale SVD, noise and curvature. <i>Applied and Computational Harmonic Analysis</i> , <b>2017</b> , 43, 504-567	3.1	17
47	ATLAS: A Geometric Approach to Learning High-Dimensional Stochastic Systems Near Manifolds. <i>Multiscale Modeling and Simulation</i> , <b>2017</b> , 15, 110-156	1.8	9
46	Inferring interaction rules from observations of evolutive systems I: The variational approach. <i>Mathematical Models and Methods in Applied Sciences</i> , <b>2017</b> , 27, 909-951	3.5	15
45	ROFLMAO: Robust Oblique Forests with Linear MATrix Operations <b>2017</b> , 498-506		2
44	Object recognition in art drawings: Transfer of a neural network <b>2016</b> ,		7

43	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> , <b>2016</b> , 9, 4316-4324	4.7	6
42	Learning adaptive multiscale approximations to data and functions near low-dimensional sets <b>2016</b> ,		5
41	Beauty is in the bid of the beholder: An empirical basis for style. <i>Research in Economics</i> , <b>2016</b> , 70, 388-402		6
40	Dictionary Learning and Non-Asymptotic Bounds for Geometric Multi-Resolution Analysis. <i>Proceedings in Applied Mathematics and Mechanics</i> , <b>2014</b> , 14, 1013-1016	0.2	1
39	Genomic characterization of large heterochromatic gaps in the human genome assembly. <i>PLoS Computational Biology</i> , <b>2014</b> , 10, e1003628	5	68
38	Branched-chain amino acids alter neurobehavioral function in rats. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , <b>2013</b> , 304, E405-13	6	34
37	Multi-Resolution Geometric Analysis for Data in High Dimensions <b>2013</b> , 259-285		2
36	Approximation of points on low-dimensional manifolds via random linear projections. <i>Information and Inference</i> , <b>2013</b> , 2, 1-31	2.4	11
35	<b>2013</b> ,		1
34	Efficient solution of Markov decision problems with multiscale representations <b>2012</b> ,		1
33	A fast multiscale framework for data in high-dimensions: Measure estimation, anomaly detection, and compressive measurements <b>2012</b> ,		6
32	Multi-scale geometric methods for data sets II: Geometric Multi-Resolution Analysis. <i>Applied and Computational Harmonic Analysis</i> , <b>2012</b> , 32, 435-462	3.1	55
31	Geometric multiscale reduction for autonomous and controlled nonlinear systems <b>2012</b> ,		1
30	Multiscale geometric and spectral analysis of plane arrangements <b>2011</b> ,		7
29	Determination of reaction coordinates via locally scaled diffusion map. <i>Journal of Chemical Physics</i> , <b>2011</b> , 134, 124116	3.9	180
28	Polymer reversal rate calculated via locally scaled diffusion map. <i>Journal of Chemical Physics</i> , <b>2011</b> , 134, 144109	3.9	39
27	Some Recent Advances in Multiscale Geometric Analysis of Point Clouds <b>2011</b> , 199-225		7
26	Research on online social networks. <i>Performance Evaluation Review</i> , <b>2010</b> , 37, 49-54	0.4	16

25	Data representation and exploration with Geometric Wavelets <b>2010</b> ,		1
24	Multiscale geometric wavelets for the analysis of point clouds <b>2010</b> ,		7
23	Universal local parametrizations via heat kernels and eigenfunctions of the Laplacian. <i>Annales Academiæ Scientiarum Fennicæ Mathematica</i> , <b>2010</b> , 35, 131-174	1.9	17
22	Estimation of intrinsic dimensionality of samples from noisy low-dimensional manifolds in high dimensions with multiscale SVD <b>2009</b> ,		16
21	Diffusion Maps, Reduction Coordinates, and Low Dimensional Representation of Stochastic Systems. <i>Multiscale Modeling and Simulation</i> , <b>2008</b> , 7, 842-864	1.8	156
20	Tensor-CUR Decompositions for Tensor-Based Data. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>2008</b> , 30, 957-987	1.5	49
19	Manifold parametrizations by eigenfunctions of the Laplacian and heat kernels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2008</b> , 105, 1803-8	11.5	87
18	Diffusion polynomial frames on metric measure spaces. <i>Applied and Computational Harmonic Analysis</i> , <b>2008</b> , 24, 329-353	3.1	59
17	Fast direct policy evaluation using multiscale analysis of Markov diffusion processes <b>2006</b> ,		12
16	Hyperspectral microscopic analysis of normal, benign and carcinoma microarray tissue sections <b>2006</b> ,		11
15	Diffusion wavelets. <i>Applied and Computational Harmonic Analysis</i> , <b>2006</b> , 21, 53-94	3.1	420
14	Diffusion wavelet packets. <i>Applied and Computational Harmonic Analysis</i> , <b>2006</b> , 21, 95-112	3.1	30
13	Geometries of sensor outputs, inference, and information processing <b>2006</b> ,		6
12	Geometric diffusions as a tool for harmonic analysis and structure definition of data: multiscale methods. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2005</b> , 102, 7432-7	11.5	134
11	Geometric diffusions as a tool for harmonic analysis and structure definition of data: diffusion maps. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2005</b> , 102, 7426-31	11.5	944
10	Biorthogonal diffusion wavelets for multiscale representations on manifolds and graphs <b>2005</b> ,		13
9	Diffusion-driven multiscale analysis on manifolds and graphs: top-down and bottom-up constructions <b>2005</b> ,		19
8	Geometric diffusions for the analysis of data from sensor networks. <i>Current Opinion in Neurobiology</i> , <b>2005</b> , 15, 576-84	7.6	10

7	Wavelet Frames on Groups and Hypergroups via Discretization of Calderón Formulas. <i>Monatshefte Fur Mathematik</i> , <b>2004</b> , 143, 299-331	0.7	3
6	Multiscale approximation with hierarchical radial basis functions networks. <i>IEEE Transactions on Neural Networks</i> , <b>2004</b> , 15, 178-88		66
5	Characterization of General Tight Wavelet Frames with Matrix Dilations and Tightness Preserving Oversampling. <i>Journal of Fourier Analysis and Applications</i> , <b>2002</b> , 8, 173-200	1.1	35
4	Remarks on the box problem. <i>Mathematical Research Letters</i> , <b>2002</b> , 9, 515-519	0.6	7
3	M-Band Burt-Adelson Biorthogonal Wavelets. <i>Applied and Computational Harmonic Analysis</i> , <b>2000</b> , 9, 286-311	3.1	1
2	Critical Exponent of Short Even Filters and Burt-Adelson Biorthogonal Wavelets. <i>Monatshefte Fur Mathematik</i> , <b>2000</b> , 131, 49-69	0.7	
1	Learning Interaction Kernels in Stochastic Systems of Interacting Particles from Multiple Trajectories. <i>Foundations of Computational Mathematics</i> , 1	2.7	2