

# Stephane Mallat

## List of Publications by Year in descending order

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33  
papers

4,556  
citations

430874

18  
h-index

552781

26  
g-index

33  
all docs

33  
docs citations

33  
times ranked

3191  
citing authors

#	ARTICLE	IF	CITATIONS
1	Particle gradient descent model for point process generation. <i>Statistics and Computing</i> , 2022, 32, .	1.5	0
2	Maximum entropy models from phase harmonic covariances. <i>Applied and Computational Harmonic Analysis</i> , 2021, 53, 199-230.	2.2	13
3	Phase harmonic correlations and convolutional neural networks. <i>Information and Inference</i> , 2020, 9, 721-747.	1.6	14
4	Machine learning surrogate models for prediction of point defect vibrational entropy. <i>Physical Review Materials</i> , 2020, 4, .	2.4	9
5	The Quijote Simulations. <i>Astrophysical Journal, Supplement Series</i> , 2020, 250, 2.	7.7	149
6	Multiscale sparse microcanonical models. <i>Mathematical Statistics and Learning</i> , 2019, 1, 257-315.	1.2	18
7	Joint Time-Frequency Scattering. <i>IEEE Transactions on Signal Processing</i> , 2019, 67, 3704-3718.	5.3	29
8	Solid harmonic wavelet scattering for predictions of molecule properties. <i>Journal of Chemical Physics</i> , 2018, 148, 241732.	3.0	47
9	Wavelet Scattering Regression of Quantum Chemical Energies. <i>Multiscale Modeling and Simulation</i> , 2017, 15, 827-863.	1.6	65
10	Deep Haar scattering networks. <i>Information and Inference</i> , 2016, 5, 105-133.	1.6	14
11	Rigid Motion Model for Audio Source Separation. <i>IEEE Transactions on Signal Processing</i> , 2016, 64, 1822-1831.	5.3	9
12	Understanding deep convolutional networks. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2016, 374, 20150203.	3.4	358
13	Intermittent process analysis with scattering moments. <i>Annals of Statistics</i> , 2015, 43, .	2.6	34
14	Joint time-frequency scattering for audio classification. , 2015, , .		20
15	Manifold Learning for Latent Variable Inference in Dynamical Systems. <i>IEEE Transactions on Signal Processing</i> , 2015, 63, 3843-3856.	5.3	41
16	Audio source separation with time-frequency velocities. , 2014, , .		6
17	Deep Scattering Spectrum. <i>IEEE Transactions on Signal Processing</i> , 2014, 62, 4114-4128.	5.3	359
18	Scattering Transform for Intrapartum Fetal Heart Rate Variability Fractal Analysis: A Case-Control Study. <i>IEEE Transactions on Biomedical Engineering</i> , 2014, 61, 1100-1108.	4.2	54

#	ARTICLE	IF	CITATIONS
19	Rotation, Scaling and Deformation Invariant Scattering for Texture Discrimination. , 2013, , .		217
20	Scattering transform for intrapartum fetal heart rate characterization and acidosis detection. , 2013, 2898-901.		4
21	Invariant Scattering Convolution Networks. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2013, 35, 1872-1886.	13.9	991
22	Group Invariant Scattering. Communications on Pure and Applied Mathematics, 2012, 65, 1331-1398.	3.1	554
23	Classification with scattering operators. , 2011, , .		76
24	Super-Resolution With Sparse Mixing Estimators. IEEE Transactions on Image Processing, 2010, 19, 2889-2900.	9.8	251
25	Geometrical grouplets. Applied and Computational Harmonic Analysis, 2009, 26, 161-180.	2.2	94
26	Orthogonal bandelet bases for geometric images approximation. Communications on Pure and Applied Mathematics, 2008, 61, 1173-1212.	3.1	65
27	A review of Bandlet methods for geometrical image representation. Numerical Algorithms, 2007, 44, 205-234.	1.9	115
28	Surface compression with geometric bandelets. ACM Transactions on Graphics, 2005, 24, 601-608.	7.2	133
29	Sparse geometric image representations with bandelets. IEEE Transactions on Image Processing, 2005, 14, 423-438.	9.8	711
30	Surface compression with geometric bandelets. , 2005, , .		25
31	Foveal detection and approximation for singularities. Applied and Computational Harmonic Analysis, 2003, 14, 133-180.	2.2	13
32	Wavelet Foveation. Applied and Computational Harmonic Analysis, 2000, 9, 312-335.	2.2	53
33	Adaptive Time-Frequency Approximations with Matching Pursuits. Wavelet Analysis and Its Applications, 1994, 5, 271-293.	0.2	15