

Simon Foucart

List of Publications by Year in descending order

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34

papers

3,028

citations

623734

14

h-index

377865

34

g-index

38

all docs

38

docs citations

38

times ranked

2203

citing authors

#	ARTICLE	IF	CITATIONS
1	A Mathematical Introduction to Compressive Sensing. <i>Applied and Numerical Harmonic Analysis</i> , 2013, , . Sparsest solutions of underdetermined linear systems via minimization	0.3	1,434
2	for $\min_{\mathbf{x}} \ \mathbf{x}\ _1$ subject to $\mathbf{A}\mathbf{x} = \mathbf{b}$. <i>Applied and Computational Harmonic Analysis</i> , 2009, 26, 395-407.	2.2	529
3	Hard Thresholding Pursuit: An Algorithm for Compressive Sensing. <i>SIAM Journal on Numerical Analysis</i> , 2011, 49, 2543-2563.	2.3	300
4	A note on guaranteed sparse recovery via minimization	2.2	132
5	Stability and robustness of $\min_{\mathbf{x}} \ \mathbf{x}\ _1$ subject to $\mathbf{A}\mathbf{x} = \mathbf{b}$. <i>Applied and Computational Harmonic Analysis</i> , 2010, 29, 97-103.	0.9	91
6	The Celf and widths of $\min_{\mathbf{x}} \ \mathbf{x}\ _1$ subject to $\mathbf{A}\mathbf{x} = \mathbf{b}$. <i>Journal of Complexity</i> , 2010, 26, 629-640.	1.3	76
7	Exponential Decay of Reconstruction Error From Binary Measurements of Sparse Signals. <i>IEEE Transactions on Information Theory</i> , 2017, 63, 3368-3385.	2.4	69
8	Sparse Recovery Algorithms: Sufficient Conditions in Terms of Restricted Isometry Constants. <i>Springer Proceedings in Mathematics</i> , 2012, , 65-77.	0.5	65
9	Sparse Recovery by Means of Nonnegative Least Squares. <i>IEEE Signal Processing Letters</i> , 2014, 21, 498-502.	3.6	50
10	Hard thresholding pursuit algorithms: Number of iterations. <i>Applied and Computational Harmonic Analysis</i> , 2016, 41, 412-435.	2.2	40
11	Quikr: a method for rapid reconstruction of bacterial communities via compressive sensing. <i>Bioinformatics</i> , 2013, 29, 2096-2102.	4.1	39
12	WGSQuikr: Fast Whole-Genome Shotgun Metagenomic Classification. <i>PLoS ONE</i> , 2014, 9, e91784.	2.5	36
13	Sparse recovery with pre-Gaussian random matrices. <i>Studia Mathematica</i> , 2010, 200, 91-102.	0.7	21
14	Flavors of Compressive Sensing. <i>Springer Proceedings in Mathematics and Statistics</i> , 2017, , 61-104.	0.2	17
15	Computing a Quantity of Interest from Observational Data. <i>Constructive Approximation</i> , 2019, 49, 461-508.	3.0	14
16	Iterative hard thresholding for low-rank recovery from rank-one projections. <i>Linear Algebra and Its Applications</i> , 2019, 572, 117-134.	0.9	14
17	On maximal relative projection constants. <i>Journal of Mathematical Analysis and Applications</i> , 2017, 447, 309-328.	1.0	11
18	Dictionary-Sparse Recovery via Thresholding-Based Algorithms. <i>Journal of Fourier Analysis and Applications</i> , 2016, 22, 6-19.	1.0	9

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19	An IHT Algorithm for Sparse Recovery From Subexponential Measurements. <i>IEEE Signal Processing Letters</i> , 2017, 24, 1280-1283.	3.6	9
20	Computation of Chebyshev Polynomials for Union of Intervals. <i>Computational Methods and Function Theory</i> , 2019, 19, 625-641.	1.5	8
21	Sparse recovery from saturated measurements. <i>Information and Inference</i> , 2016, , iaw020.	1.6	7
22	Sparse Recovery from Inaccurate Saturated Measurements. <i>Acta Applicandae Mathematicae</i> , 2018, 158, 49-66.	1.0	7
23	Restricted Isometry Property. <i>Applied and Numerical Harmonic Analysis</i> , 2013, , 133-174.	0.3	6
24	Jointly low-rank and bisparse recovery: Questions and partial answers. <i>Analysis and Applications</i> , 2020, 18, 25-48.	2.2	6
25	Sparse disjointed recovery from noninflating measurements. <i>Applied and Computational Harmonic Analysis</i> , 2015, 39, 558-567.	2.2	5
26	Instances of Computational Optimal Recovery: Dealing with Observation Errors. <i>SIAM-ASA Journal on Uncertainty Quantification</i> , 2021, 9, 1438-1456.	2.0	5
27	Computation of Minimal Projections and Extensions. <i>Numerical Functional Analysis and Optimization</i> , 2016, 37, 159-185.	1.4	4
28	Instances of computational optimal recovery: Refined approximability models. <i>Journal of Complexity</i> , 2021, 62, 101503.	1.3	4
29	Allometry constants of finite-dimensional spaces: theory and computations. <i>Numerische Mathematik</i> , 2009, 112, 535-564.	1.9	2
30	Determining projection constants of univariate polynomial spaces. <i>Journal of Approximation Theory</i> , 2018, 235, 74-91.	0.8	2
31	On the best conditioned bases of quadratic polynomials. <i>Journal of Approximation Theory</i> , 2004, 130, 46-56.	0.8	1
32	Approximability models and optimal system identification. <i>Mathematics of Control, Signals, and Systems</i> , 2020, 32, 19-41.	2.3	1
33	Learning from non-random data in Hilbert spaces: an optimal recovery perspective. <i>Sampling Theory, Signal Processing, and Data Analysis</i> , 2022, 20, 1.	1.1	1
34	On the norms and minimal properties of de la Vallée Poussin's type operators. <i>Monatshefte Für Mathematik</i> , 2018, 185, 601-619.	0.9	0