Jan Vybiral

List of Publications by Year
in descending order

48	1,464	566801	329751
papers	citations	15	37
		h-index	g-index

49	49	49	1682
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Big Data of Materials Science: Critical Role of the Descriptor. Physical Review Letters, 2015, 114, 105503.	2.9	658
2	Learning physical descriptors for materials science by compressed sensing. New Journal of Physics, 2017, 19, 023017.	1.2	100
3	A variant of the Johnson–Lindenstrauss lemma for circulant matrices. Journal of Functional Analysis, 2011, 260, 1096-1105.	0.7	80
4	Learning Functions of Few Arbitrary Linear Parameters in High Dimensions. Foundations of Computational Mathematics, 2012, 12, 229-262.	1.5	58
5	Spaces of Variable Smoothness and Integrability: Characterizations by Local Means and Ball Means of Differences. Journal of Fourier Analysis and Applications, 2012, 18, 852-891.	0.5	54
6	Lorentz spaces with variable exponents. Mathematische Nachrichten, 2014, 287, 938-954.	0.4	50
7	Widths of embeddings in function spaces. Journal of Complexity, 2008, 24, 545-570.	0.7	44
8	Johnson–Lindenstrauss lemma for circulant matrices**. Random Structures and Algorithms, 2011, 39, 391-398.	0.6	35
9	Function spaces with dominating mixed smoothness. Dissertationes Mathematicae, 0, 436, 1-73.	1.0	32
10	A note on the spaces of variable integrability and summability of Almeida and Hästö. Proceedings of the American Mathematical Society, 2013, 141, 3207-3212.	0.4	29
11	Entropy and Sampling Numbers of Classes of Ridge Functions. Constructive Approximation, 2015, 42, 231-264.	1.8	25
12	Linear information versus function evaluations for <mml:math altimg="si1.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http:. Journal of Approxima	0.5	24
13	An upper bound on the minimal dispersion. Journal of Complexity, 2018, 45, 120-126.	0.7	22
14	Sparse Proteomics Analysis – a compressed sensing-based approach for feature selection and classification of high-dimensional proteomics mass spectrometry data. BMC Bioinformatics, 2017, 18, 160.	1.2	21
15	A Survey of Compressed Sensing. Applied and Numerical Harmonic Analysis, 2015, , 1-39.	0.1	20
16	Sampling numbers and function spaces. Journal of Complexity, 2007, 23, 773-792.	0.7	17
17	On sharp embeddings of Besov and Triebel-Lizorkin spaces in the subcritical case. Proceedings of the American Mathematical Society, 2010, 138, 141-146.	0.4	15
18	Complex interpolation of weighted Besov and Lizorkin-Triebel spaces. Acta Mathematica Sinica, English Series, 2014, 30, 1297-1323.	0.2	15

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19	Weak and quasi-polynomial tractability of approximation of infinitely differentiable functions. Journal of Complexity, 2014, 30, 48-55.	0.7	14
20	Entropy numbers of embeddings of Schatten classes. Journal of Functional Analysis, 2017, 273, 3241-3261.	0.7	14
21	A New Proof of the Jawerth-Franke Embedding. Revista Matematica Complutense, 2008, 21, .	0.7	13
22	A variant of Schur's product theorem and its applications. Advances in Mathematics, 2020, 368, 107140.	0.5	12
23	ON THE INTERPLAY OF REGULARITY AND DECAY IN CASE OF RADIAL FUNCTIONS I: INHOMOGENEOUS SPACES. Communications in Contemporary Mathematics, 2012, 14, 1250005.	0.6	11
24	On positive positive-definite functions and Bochner's Theorem. Journal of Complexity, 2011, 27, 264-272.	0.7	10
25	Non-smooth atomic decompositions, traces on Lipschitz domains, and pointwise multipliers in function spaces. Journal of Functional Analysis, 2013, 264, 1197-1237.	0.7	9
26	On dilation operators and sampling numbers. Journal of Function Spaces and Applications, 2008, 6, 17-46.	0.5	8
27	Carl's inequality for quasi-Banach spaces. Journal of Functional Analysis, 2016, 271, 2293-2307.	0.7	8
28	Lower bounds for the error of quadrature formulas for Hilbert spaces. Journal of Complexity, 2021, 65, 101544.	0.7	8
29	Traces of functions with a dominating mixed derivative in $\mathbb{R}^3$. Czechoslovak Mathematical Journal, 2007, 57, 1239-1273.	0.3	5
30	Particle Systems and Kinetic Equations Modeling Interacting Agents in High Dimension. Multiscale Modeling and Simulation, 2011, 9, 1727-1764.	0.6	5
31	Compressed learning of high-dimensional sparse functions. , 2011, , .		4
32	On some aspects of approximation of ridge functions. Journal of Approximation Theory, 2015, 194, 35-61.	0.5	4
33	The minimal k-dispersion of point sets in high dimensions. Journal of Complexity, 2019, 51, 68-78.	0.7	4
34	Robust and resource efficient identification of shallow neural networks by fewest samples. Information and Inference, 2021, 10, 625-695.	0.9	4
35	Gelfand numbers of embeddings of Schatten classes. Mathematische Annalen, 2021, 380, 1563-1593.	0.7	4
36	Lower bounds for integration and recovery in L2. Journal of Complexity, 2022, , 101662.	0.7	4

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37	Homogeneity Property of Besov and Triebel-Lizorkin Spaces. Journal of Function Spaces and Applications, 2012, 2012, 1-17.	0.5	3
38	Franke–Jawerth embeddings for Besov and Triebel–Lizorkin spaces with variable exponents. Annales Academiae Scientiarum Fennicae Mathematica, 2018, 43, 187-209.	0.7	3
39	On dilation operators in Triebel-Lizorkin spaces. Functiones Et Approximatio, Commentarii Mathematici, 2009, 41, .	0.1	3
40	Average Best m-term Approximation. Constructive Approximation, 2012, 36, 83-115.	1.8	2
41	Entropy numbers of finite-dimensional embeddings. , 2020, 38, 319-336.		2
42	Non-asymptotic Analysis of ℓ_1-norm Support Vector Machines. IEEE Transactions on Information Theory, 2017, , 1-1.	1.5	1
43	Volumes of unit balls of mixed sequence spaces. Mathematische Nachrichten, 2017, 290, 1317-1327.	0.4	1
44	Learning General Sparse Additive Models from Point Queries in High Dimensions. Constructive Approximation, 2019, 50, 403-455.	1.8	1
45	A remark on better λ-inequality. Mathematical Inequalities and Applications, 2007, , 335-341.	0.1	1
46	Weak estimates cannot be obtained by extrapolation. , 2010, 28, 375-377.		0
47	On the volume of unit balls of finite-dimensional Lorentz spaces. Journal of Approximation Theory, 2020, 255, 105407.	0.5	0
48	Deterministic Constructions of High-Dimensional Sets with Small Dispersion. Algorithmica, 0, , 1.	1.0	0