Peter Balazs

List of Publications by Year
in descending order

72	1,449	331538 21	377752 34
papers	citations	h-index	g-index

76	76	76	528
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Basic definition and properties of Bessel multipliers. Journal of Mathematical Analysis and Applications, 2007, 325, 571-585.	0.5	92
2	Theory, implementation and applications of nonstationary Gabor frames. Journal of Computational and Applied Mathematics, 2011, 236, 1481-1496.	1.1	90
3	A fast Griffin-Lim algorithm. , 2013, , .		80
4	THE LINEAR TIME FREQUENCY ANALYSIS TOOLBOX. International Journal of Wavelets, Multiresolution and Information Processing, 2012, 10, 1250032.	0.9	75
5	WEIGHTED AND CONTROLLED FRAMES: MUTUAL RELATIONSHIP AND FIRST NUMERICAL PROPERTIES. International Journal of Wavelets, Multiresolution and Information Processing, 2010, 08, 109-132.	0.9	62
6	Timeâ€“Frequency Sparsity by Removing Perceptually Irrelevant Components Using a Simple Model of Simultaneous Masking. IEEE Transactions on Audio Speech and Language Processing, 2010, 18, 34-49.	3.8	57
7	HILBERTâ€“SCHMIDT OPERATORS AND FRAMES â€" CLASSIFICATION, BEST APPROXIMATION BY MULTIPLIERS AND ALGORITHMS. International Journal of Wavelets, Multiresolution and Information Processing, 2008, 06, 315-330.	0.9	52
8	Multipliers for continuous frames in Hilbert spaces. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 244023.	0.7	52
9	The Large Time-Frequency Analysis Toolbox 2.0. Lecture Notes in Computer Science, 2014, , 419-442.	1.0	51
10	Invertibility of multipliers. Applied and Computational Harmonic Analysis, 2012, 33, 292-299.	1.1	46
11	A Noniterative Method for Reconstruction of Phase From STFT Magnitude. IEEE/ACM Transactions on Audio Speech and Language Processing, 2017, 25, 1154-1164.	4.0	45
12	Double Preconditioning for Gabor Frames. IEEE Transactions on Signal Processing, 2006, 54, 4597-4610.	3.2	39
13	The pole behavior of the phase derivative of the short-time Fourier transform. Applied and Computational Harmonic Analysis, 2016, 40, 610-621.	1.1	39
14	Sex-dependent modulation of ultrasonic vocalizations in house mice (Mus musculus musculus). PLoS ONE, 2017, 12, e0188647.	1.1	39
15	Adapted and Adaptive Linear Time-Frequency Representations: A Synthesis Point of View. IEEE Signal Processing Magazine, 2013, 30, 20-31.	4.6	32
16	Discrete coherent states for higher Landau levels. Annals of Physics, 2015, 363, 337-353.	1.0	32
17	Canonical forms of unconditionally convergent multipliers. Journal of Mathematical Analysis and Applications, 2013, 399, 252-259.	0.5	31
18	Representation of the inverse of a frame multiplier. Journal of Mathematical Analysis and Applications, 2015, 422, 981-994.	0.5	31

#	Article	IF	Citations
19	Frames and semi-frames. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 205201.	0.7	29
20	The ERBlet transform: An auditory-based time-frequency representation with perfect reconstruction. , 2013, , .		27
21	Matrix Representation of Operators Using Frames. Sampling Theory in Signal and Information Processing, 2008, 7, 39-54.	0.2	26
22	Reproducing pairs and the continuous nonstationary Gabor transform on LCA groups. Journal of Physics A: Mathematical and Theoretical, 2015, 48, 395201.	0.7	24
23	Automatic mouse ultrasound detector (A-MUD): A new tool for processing rodent vocalizations. PLoS ONE, 2017, 12, e0181200.	1.1	24
24	Inpainting of Long Audio Segments With Similarity Graphs. IEEE/ACM Transactions on Audio Speech and Language Processing, 2018, 26, 1083-1094.	4.0	23
25	Frames, Semi-Frames, and Hilbert Scales. Numerical Functional Analysis and Optimization, 2012, 33, 736-769.	0.6	22
26	A 2.5D-Fourier-BEM model for vibrations in a tunnel running through layered anisotropic soil. Engineering Analysis With Boundary Elements, 2012, 36, 960-967.	2.0	21
27	Audlet Filter Banks: A Versatile Analysis/Synthesis Framework Using Auditory Frequency Scales. Applied Sciences (Switzerland), 2018, 8, 96.	1.3	21
28	Classification of General Sequences by Frame-Related Operators. Sampling Theory in Signal and Information Processing, 2011, 10, 151-170.	0.2	21
29	Multipliers for p-Bessel Sequences in Banach Spaces. Integral Equations and Operator Theory, 2010, 68, 193-205.	0.4	17
30	On Pole-Zero Model Estimation Methods Minimizing a Logarithmic Criterion for Speech Analysis. IEEE Transactions on Audio Speech and Language Processing, 2010, 18, 237-248.	3.8	17
31	A time-frequency method for increasing the signal-to-noise ratio in system identification with exponential sweeps. , 2011, , .		17
32	Designing Gabor windows using convex optimization. Applied Mathematics and Computation, 2018, 330, 266-287.	1.4	15
33	Additivity of nonsimultaneous masking for short Gaussian-shaped sinusoids. Journal of the Acoustical Society of America, 2011, 129, 888-897.	0.5	13
34	Detailed Characterization of Conditions for the Unconditional Convergence and Invertibility of Multipliers. Sampling Theory in Signal and Information Processing, 2013, 12, 87-125.	0.2	13
35	Frame Theory for Signal Processing in Psychoacoustics. Applied and Numerical Harmonic Analysis, 2017, , 225-268.	0.1	12
36	SEDENOSS: SEparating and DENOising Seismic Signals With Dualâ€Path Recurrent Neural Network Architecture. Journal of Geophysical Research: Solid Earth, 2022, 127, .	1.4	12

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37	Perceptual matching pursuit with Gabor dictionaries and time-frequency masking. , 2014, , .		10
38	Kernel theorems in coorbit theory. Transactions of the American Mathematical Society Series B, 2019, 6, 346-364.	0.6	10
39	Primed to vocalize: Wild-derived male house mice increase vocalization rate and diversity after a previous encounter with a female. PLoS ONE, 2020, 15, e0242959.	1.1	10
40	On the Dual Frame Induced by an Invertible Frame Multiplier. Sampling Theory in Signal and Information Processing, 2016, 15, 119-130.	0.2	9
41	Reproducing pairs and Gabor systems at critical density. Journal of Mathematical Analysis and Applications, 2017, 455, 1072-1087.	0.5	8
42	Dictionary Learning for Sparse Audio Inpainting. IEEE Journal on Selected Topics in Signal Processing, 2021, 15, 104-119.	7.3	8
43	A Guide to Localized Frames and Applications to Galerkin-Like Representations of Operators. Applied and Numerical Harmonic Analysis, 2017, , 47-79.	0.1	8
44	The $$alpha $$ Î± -modulation transform: admissibility, coorbit theory and frames of compactly supported functions. Monatshefte Fur Mathematik, 2017, 184, 133-169.	0.5	7
45	A Survey on the Unconditional Convergence and the Invertibility of Frame Multipliers with Implementation. Applied and Numerical Harmonic Analysis, 2020, , 169-192.	0.1	7
46	A STOCHASTIC 2D-MODEL FOR CALCULATING VIBRATIONS IN RANDOM LAYERS. Journal of Computational Acoustics, 2007, 15, 271-283.	1.0	6
47	Frames and semi-frames. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 479501.	0.7	6
48	U-cross Gram matrices and their invertibility. Journal of Mathematical Analysis and Applications, 2019, 476, 367-390.	0.5	6
49	Simultaneous masking additivity for short Gaussian-shaped tones: Spectral effects. Journal of the Acoustical Society of America, 2013, 134, 1160-1171.	0.5	5
50	Frames for the Solution of Operator Equations in Hilbert Spaces with Fixed Dual Pairing. Numerical Functional Analysis and Optimization, 2019, 40, 65-84.	0.6	5
51	Continuous warped time-frequency representationsâ€"Coorbit spaces and discretization. Applied and Computational Harmonic Analysis, 2019, 47, 975-1013.	1.1	5
52	The Invertibility of U-Fusion Cross Gram Matrices of Operators. Mediterranean Journal of Mathematics, 2020, 17, 1.	0.4	5
53	A logarithmic based pole-zero vocal tract model estimation for speaker verification. , 2011, , .		4
54	Commutative properties of invertible multipliers in relation to representation of their inverses. , 2017, , .		4

#	Article	IF	Citations
55	Auditory Time-Frequency Masking for Spectrally and Temporally Maximally-Compact Stimuli. PLoS ONE, 2016, 11, e0166937.	1.1	4
56	Capturing the songs of mice with an improved detection and classification method for ultrasonic vocalizations (BootSnap). PLoS Computational Biology, 2022, 18, e1010049.	1.5	4
57	A quasi-orthogonal, invertible, and perceptually relevant time-frequency transform for audio coding. , 2015, , .		3
58	Frames, their relatives and reproducing kernel Hilbert spaces. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 015204.	0.7	3
59	Auditory Time-Frequency Masking: Psychoacoustical Data and Application to Audio Representations. Lecture Notes in Computer Science, 2012, , 146-171.	1.0	3
60	A 3D MODEL TO SIMULATE VIBRATIONS IN A LAYERED MEDIUM WITH STOCHASTIC MATERIAL PARAMETERS. Journal of Computational Acoustics, 2011, 19, 139-154.	1.0	2
61	The dual frame induced by an invertible frame multiplier. , 2015, , .		2
62	Random Gabor Multipliers for Compressive Sensing: A Simulation Study. , 2019, , .		2
63	Random Gabor Multipliers and Compressive Sensing. , 2019, , .		2
64	Fast Matching Pursuit with Multi-Gabor Dictionaries. ACM Transactions on Mathematical Software, 2021, 47, 1-20.	1.6	2
65	An iterative method for approximating LTI systems using subbands. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	0
66	Time-frequency representations for nonlinear frequency scales — Coorbit spaces and discretization. , 2015, , .		0
67	Dictionary learning for pitch estimation in speech signals. , 2017, , .		0
68	An Operator Based Approach to Irregular Frames of Translates. Mathematics, 2019, 7, 449.	1.1	0
69	Banach frames and atomic decompositions in the space of bounded operators on Hilbert spaces. , 2019, , .		0
70	Phase-Based Signal Representations for Scattering. , 2021, , .		0
71	Audio Inpainting via ell_{1}-Minimization and Dictionary Learning. , 2021, , .		0
72	Frame-Related Sequences in Chains and Scales of Hilbert Spaces. Axioms, 2022, 11, 180.	0.9	0