

Laurent Jacques

List of Publications by Year in descending order

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Version: 2024-02-01

80
papers

2,437
citations

331259

21
h-index

223531

46
g-index

83
all docs

83
docs citations

83
times ranked

2361
citing authors

#	ARTICLE	IF	CITATIONS
1	Robust 1-Bit Compressive Sensing via Binary Stable Embeddings of Sparse Vectors. IEEE Transactions on Information Theory, 2013, 59, 2082-2102.	1.5	484
2	Compressed sensing imaging techniques for radio interferometry. Monthly Notices of the Royal Astronomical Society, 2009, 395, 1733-1742.	1.6	229
3	Dequantizing Compressed Sensing: When Oversampling and Non-Gaussian Constraints Combine. IEEE Transactions on Information Theory, 2011, 57, 559-571.	1.5	202
4	Wavelets on the sphere: implementation and approximations. Applied and Computational Harmonic Analysis, 2002, 13, 177-200.	1.1	113
5	Correspondence Principle between Spherical and Euclidean Wavelets. Astrophysical Journal, 2005, 632, 15-28.	1.6	96
6	A short note on compressed sensing with partially known signal support. Signal Processing, 2010, 90, 3308-3312.	2.1	88
7	Stereographic wavelet frames on the sphere. Applied and Computational Harmonic Analysis, 2005, 19, 223-252.	1.1	80
8	A panorama on multiscale geometric representations, intertwining spatial, directional and frequency selectivity. Signal Processing, 2011, 91, 2699-2730.	2.1	75
9	Diffeomorphic Registration of Images with Variable Contrast Enhancement. International Journal of Biomedical Imaging, 2011, 2011, 1-16.	3.0	70
10	Heterogenous void growth revealed by in situ 3-D X-ray microtomography using automatic cavity tracking. Acta Materialia, 2014, 63, 130-139.	3.8	56
11	Close Encounters of the Binary Kind: Signal Reconstruction Guarantees for Compressive Hadamard Sampling With Haar Wavelet Basis. IEEE Transactions on Information Theory, 2020, 66, 7253-7273.	1.5	49
12	Fast Directional Correlation on the Sphere with Steerable Filters. Astrophysical Journal, 2006, 652, 820-832.	1.6	47
13	Sparsity Driven People Localization with a Heterogeneous Network of Cameras. Journal of Mathematical Imaging and Vision, 2011, 41, 39-58.	0.8	46
14	On the Noise Robustness of Simultaneous Orthogonal Matching Pursuit. IEEE Transactions on Signal Processing, 2017, 65, 864-875.	3.2	45
15	CMOS compressed imaging by Random Convolution. , 2009, , .		44
16	Fast spin $\hat{A}\pm 2$ spherical harmonics transforms and application in cosmology. Journal of Computational Physics, 2007, 226, 2359-2371.	1.9	41
17	Quantization and Compressive Sensing. Applied and Numerical Harmonic Analysis, 2015, , 193-237.	0.1	37
18	Sport players detection and tracking with a mixed network of planar and omnidirectional cameras. , 2009, , .		36

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19	The PANOPTIC Camera: A Plenoptic Sensor with Real-Time Omnidirectional Capability. Journal of Signal Processing Systems, 2013, 70, 305-328.	1.4	31
20	On The Exact Recovery Condition of Simultaneous Orthogonal Matching Pursuit. IEEE Signal Processing Letters, 2016, 23, 164-168.	2.1	31
21	MULTISELECTIVE PYRAMIDAL DECOMPOSITION OF IMAGES: WAVELETS WITH ADAPTIVE ANGULAR SELECTIVITY. International Journal of Wavelets, Multiresolution and Information Processing, 2007, 05, 785-814.	0.9	25
22	A (256x256) pixel 76.7mW CMOS imager/ compressor based on real-time In-pixel compressive sensing. , 2010, , .		25
23	Consistent iterative hard thresholding for signal declipping. , 2013, , .		25
24	Quantized compressive sensing with RIP matrices: the benefit of dithering. Information and Inference, 2020, 9, 543-586.	0.9	25
25	A Geometrical Study of Matching Pursuit Parametrization. IEEE Transactions on Signal Processing, 2008, 56, 2835-2848.	3.2	22
26	From Bits to Images: Inversion of Local Binary Descriptors. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2014, 36, 874-887.	9.7	21
27	A Quantized Johnson-Lindenstrauss Lemma: The Finding of Buffon's Needle. IEEE Transactions on Information Theory, 2015, 61, 5012-5027.	1.5	20
28	STIM map: detection map for exoplanets imaging beyond asymptotic Gaussian residual speckle noise. Monthly Notices of the Royal Astronomical Society, 2019, 487, 2262-2277.	1.6	19
29	Sparsity-driven people localization algorithm: Evaluation in crowded scenes environments. , 2009, , .		18
30	Time for dithering: fast and quantized random embeddings via the restricted isometry property. Information and Inference, 2017, 6, 441-476.	0.9	17
31	MAYONNAISE: a morphological components analysis pipeline for circumstellar discs and exoplanets imaging in the near-infrared. Monthly Notices of the Royal Astronomical Society, 2021, 503, 3724-3742.	1.6	17
32	Compressive sampling of pulse trains: Spread the spectrum!. , 2009, , .		16
33	Discriminative and Efficient Label Propagation on Complementary Graphs for Multi-Object Tracking. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2017, 39, 61-74.	9.7	16
34	Stabilizing Nonuniformly Quantized Compressed Sensing With Scalar Companders. IEEE Transactions on Information Theory, 2013, 59, 7969-7984.	1.5	15
35	Wavelet Spectrum Analysis Of Eit/Soho Images. Solar Physics, 2005, 228, 301-321.	1.0	14
36	Analysis and experimental evaluation of image-based PUFs. Journal of Cryptographic Engineering, 2012, 2, 189-206.	1.5	14

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37	Quantized Compressive K-Means. IEEE Signal Processing Letters, 2018, 25, 1211-1215.	2.1	14
38	Non-parametric PSF estimation from celestial transit solar images using blind deconvolution. Journal of Space Weather and Space Climate, 2016, 6, A1.	1.1	11
39	A non-convex blind calibration method for randomised sensing strategies. , 2016, , .		11
40	A greedy blind calibration method for compressed sensing with unknown sensor gains. , 2017, , .		11
41	Determination of vibration amplitudes from binary phase patterns obtained by phase-shifting time-averaged speckle shearing interferometry. Applied Optics, 2018, 57, 8065.	0.9	11
42	A sparsity constrained inverse problem to locate people in a network of cameras. , 2009, , .		10
43	Hardware implementation of an omnidirectional camera with real-time 3D imaging capability. , 2011, , .		10
44	Improving the Correlation Lower Bound for Simultaneous Orthogonal Matching Pursuit. IEEE Signal Processing Letters, 2016, 23, 1642-1646.	2.1	10
45	Through the haze: a non-convex approach to blind gain calibration for linear random sensing models. Information and Inference, 2019, 8, 205-271.	0.9	10
46	Wavelet analysis of a quasiperiodic tiling with fivefold symmetry. Physics Letters, Section A: General, Atomic and Solid State Physics, 1999, 261, 265-274.	0.9	9
47	Sketching Data Sets for Large-Scale Learning: Keeping only what you need. IEEE Signal Processing Magazine, 2021, 38, 12-36.	4.6	9
48	DeQuantizing Compressed Sensing with non-Gaussian constraints. , 2009, , .		7
49	Hardware-Compliant Compressive Image Sensor Architecture Based on Random Modulations and Permutations for Embedded Inference. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 1218-1231.	3.5	7
50	Compressive optical deflectometric tomography: A constrained total-variation minimization approach. Inverse Problems and Imaging, 2014, 8, 421-457.	0.6	7
51	Randomly driven fuzzy key extraction of unclonable images. , 2010, , .		6
52	Compressive Imaging and Characterization of Sparse Light Deflection Maps. SIAM Journal on Imaging Sciences, 2015, 8, 1824-1856.	1.3	6
53	Multispectral Compressive Imaging Strategies Using Fabry-Pérot Filtered Sensors. IEEE Transactions on Computational Imaging, 2018, 4, 661-673.	2.6	6
54	A Variable Density Sampling Scheme for Compressive Fourier Transform Interferometry. SIAM Journal on Imaging Sciences, 2019, 12, 671-715.	1.3	6

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55	Small Width, Low Distortions: Quantized Random Embeddings of Low-complexity Sets. IEEE Transactions on Information Theory, 2017, , 1-1.	1.5	5
56	The rare eclipse problem on tiles: Quantised embeddings of disjoint convex sets. , 2017, , .		5
57	The Importance of Phase in Complex Compressive Sensing. IEEE Transactions on Information Theory, 2021, 67, 4150-4161.	1.5	5
58	Compressive Imaging Through Optical Fiber with Partial Speckle Scanning. SIAM Journal on Imaging Sciences, 2022, 15, 387-423.	1.3	5
59	Error Decay of (almost) Consistent Signal Estimations from Quantized Gaussian Random Projections. IEEE Transactions on Information Theory, 2016, , 1-1.	1.5	4
60	Quantitative characterization of biofunctionalization layers by robust image analysis for biosensor applications. Sensors and Actuators B: Chemical, 2016, 222, 980-986.	4.0	4
61	(ℓ_1, ℓ_2)-RIP and Projected Back-Projection Reconstruction for Phase-Only Measurements. IEEE Signal Processing Letters, 2020, 27, 396-400.	2.1	4
62	Angular multiselectivity analysis of images. , 2003, 5207, 196.		3
63	Refractive index map reconstruction in optical deflectometry using total-variation regularization. , 2011, , .		3
64	Hardware-Friendly Compressive Imaging Based on Random Modulations & Permutations for Image Acquisition and Classification. , 2019, , .		3
65	<title>Penrose tilings, quasi-crystals, and wavelets</title>. , 1999, 3813, 28.		2
66	Optical tomography based on phase-shifting schlieren deflectometry. , 2010, , .		2
67	Weighted fidelity in non-uniformly quantized compressed sensing. , 2011, , .		2
68	Robust phase unwrapping by convex optimization. , 2014, , .		2
69	Post-reconstruction deconvolution of PET images by total generalized variation regularization. , 2015, , .		2
70	Compressive schlieren deflectometry. , 2013, , .		1
71	Breaking the waves: asymmetric random periodic features for low-bitrate kernel machines. Information and Inference, 2022, 11, 385-421.	0.9	1
72	TV-regularized generation of planar images from omniscams. , 2009, , .		0

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73	Compact rotation invariant image descriptors by spectral trimming. , 2011, , .		0
74	A sparse smoothing approach for Gaussian Mixture Model based Acoustic-to-Articulatory Inversion. , 2014, , .		0
75	Image deconvolution by local order preservation of pixels values. , 2016, , .		0
76	Fast Method to Fit a C^1 Piecewise-Linear Function to Manifold-Valued Data Points: How Suboptimal is the Curve Obtained on the Sphere S^2 ?. Lecture Notes in Computer Science, 2017, , 595-603.	1.0	0
77	Taking the Edge off Quantization: Projected Back Projection in Dithered Compressive Sensing. , 2018, , .		0
78	Near Sensor Decision Making via Compressed Measurements for Highly Constrained Hardware. , 2019, , .		0
79	THE 2-D WAVELET TRANSFORM IN IMAGE PROCESSING: TWO NOVEL APPLICATIONS. , 2004, , .		0
80	Asymmetric Compressive Learning Guarantees With Applications to Quantized Sketches. IEEE Transactions on Signal Processing, 2022, 70, 1348-1360.	3.2	0