Laurent Jacques

List of Publications by Year
in descending order

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	Breaking the waves: asymmetric random periodic features for low-bitrate kernel machines. Information and Inference, 2022, 11, 385-421.	0.9	1
2	Asymmetric Compressive Learning Guarantees With Applications to Quantized Sketches. IEEE Transactions on Signal Processing, 2022, 70, 1348-1360.	3.2	0
3	Compressive Imaging Through Optical Fiber with Partial Speckle Scanning. SIAM Journal on Imaging Sciences, 2022, 15, 387-423.	1.3	5
4	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
5	The Importance of Phase in Complex Compressive Sensing. IEEE Transactions on Information Theory, 2021, 67, 4150-4161.	1.5	5
6	Sketching Data Sets for Large-Scale Learning: Keeping only what you need. IEEE Signal Processing Magazine, 2021, 38, 12-36.	4.6	9
7	Quantized compressive sensing with RIP matrices: the benefit of dithering. Information and Inference, 2020, 9, 543-586.	0.9	25
8	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
9	(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
10	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
11	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
12	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
13	A Variable Density Sampling Scheme for Compressive Fourier Transform Interferometry. SIAM Journal on Imaging Sciences, 2019, 12, 671-715.	1.3	6
14	Near Sensor Decision Making via Compressed Measurements for Highly Constrained Hardware. , 2019, , .		0
15	Hardware-Friendly Compressive Imaging Based on Random Modulations & Permutations for Image Acquisition and Classification. , 2019, , .		3
16	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
17	Taking the Edge off Quantization: Projected Back Projection in Dithered Compressive Sensing. , 2018, , .		0
18	Multispectral Compressive Imaging Strategies Using Fabryâ€"PÃ©rot Filtered Sensors. IEEE Transactions on Computational Imaging, 2018, 4, 661-673.	2.6	6

#	Article	IF	Citations
19	Quantized Compressive K-Means. IEEE Signal Processing Letters, 2018, 25, 1211-1215.	2.1	14
20	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
21	On the Noise Robustness of Simultaneous Orthogonal Matching Pursuit. IEEE Transactions on Signal Processing, 2017, 65, 864-875.	3.2	45
22	Fast Method to Fit a $\mathcal{C}^1$ Piecewise-Bézier Function to Manifold-Valued Data Points: How Suboptimal is the Curve Obtained on the Sphere $\mathbb{S}^2$?. Lecture Notes in Computer Science, 2017, , 595-603.	1.0	0
23	Small Width, Low Distortions: Quantized Random Embeddings of Low-complexity Sets. IEEE Transactions on Information Theory, 2017, , 1-1.	1.5	5
24	The rare eclipse problem on tiles: Quantised embeddings of disjoint convex sets. , 2017, , .		5
25	A greedy blind calibration method for compressed sensing with unknown sensor gains. , 2017, , .		11
26	Time for dithering: fast and quantized random embeddings via the restricted isometry property. Information and Inference, 2017, 6, 441-476.	0.9	17
27	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
28	Image deconvolution by local order preservation of pixels values. , 2016, , .		0
29	Improving the Correlation Lower Bound for Simultaneous Orthogonal Matching Pursuit. IEEE Signal Processing Letters, 2016, 23, 1642-1646.	2.1	10
30	A non-convex blind calibration method for randomised sensing strategies. , 2016, , .		11
31	Error Decay of (almost) Consistent Signal Estimations from Quantized Gaussian Random Projections. IEEE Transactions on Information Theory, 2016, , 1-1.	1.5	4
32	On The Exact Recovery Condition of Simultaneous Orthogonal Matching Pursuit. IEEE Signal Processing Letters, 2016, 23, 164-168.	2.1	31
33	Quantitative characterization of biofunctionalization layers by robust image analysis for biosensor applications. Sensors and Actuators B: Chemical, 2016, 222, 980-986.	4.0	4
34	Post-reconstruction deconvolution of PET images by total generalized variation regularization. , 2015, , .		2
35	Compressive Imaging and Characterization of Sparse Light Deflection Maps. SIAM Journal on Imaging Sciences, 2015, 8, 1824-1856.	1.3	6
36	A Quantized Johnson–Lindenstrauss Lemma: The Finding of Buffon's Needle. IEEE Transactions on Information Theory, 2015, 61, 5012-5027.	1.5	20

#	Article	IF	Citations
37	Quantization and Compressive Sensing. Applied and Numerical Harmonic Analysis, 2015, , 193-237.	0.1	37
38	Robust phase unwrapping by convex optimization. , 2014, , .		2
39	A sparse smoothing approach for Gaussian Mixture Model based Acoustic-to-Articulatory Inversion. , 2014, , .		0
40	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
41	From Bits to Images: Inversion of Local Binary Descriptors. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2014, 36, 874-887.	9.7	21
42	Compressive optical deflectometric tomography: A constrained total-variation minimization approach. Inverse Problems and Imaging, 2014, 8, 421-457.	0.6	7
43	Stabilizing Nonuniformly Quantized Compressed Sensing With Scalar Companders. IEEE Transactions on Information Theory, 2013, 59, 7969-7984.	1.5	15
44	The PANOPTIC Camera: A Plenoptic Sensor with Real-Time Omnidirectional Capability. Journal of Signal Processing Systems, 2013, 70, 305-328.	1.4	31
45	Robust 1-Bit Compressive Sensing via Binary Stable Embeddings of Sparse Vectors. IEEE Transactions on Information Theory, 2013, 59, 2082-2102.	1.5	484
46	Compressive schlieren deflectometry. , 2013, , .		1
47	Consistent iterative hard thresholding for signal declipping. , 2013, , .		25
48	Analysis and experimental evaluation of image-based PUFs. Journal of Cryptographic Engineering, 2012, 2, 189-206.	1.5	14
49	Hardware implementation of an omnidirectional camerawith real-time 3D imaging capability. , 2011, , .		10
50	Refractive index map reconstruction in optical deflectometry using total-variation regularization. , 2011, , .		3
51	A panorama on multiscale geometric representations, intertwining spatial, directional and frequency selectivity. Signal Processing, 2011, 91, 2699-2730.	2.1	75
52	Dequantizing Compressed Sensing: When Oversampling and Non-Gaussian Constraints Combine. IEEE Transactions on Information Theory, 2011, 57, 559-571.	1.5	202
53	Sparsity Driven People Localization with a Heterogeneous Network of Cameras. Journal of Mathematical Imaging and Vision, 2011, 41, 39-58.	0.8	46
54	Weighted fidelity in non-uniformly quantized compressed sensing. , 2011, , .		2

#	Article	IF	Citations
55	Compact rotation invariant image descriptors by spectral trimming. , 2011, , .		0
56	Diffeomorphic Registration of Images with Variable Contrast Enhancement. International Journal of Biomedical Imaging, 2011, 2011, 1-16.	3.0	70
57	A short note on compressed sensing with partially known signal support. Signal Processing, 2010, 90, 3308-3312.	2.1	88
58	A (256×256) pixel 76.7mW CMOS imager/ compressor based on real-time In-pixel compressive sensing. , 2010, , .		25
59	Randomly driven fuzzy key extraction of unclonable images. , 2010, , .		6
60	Optical tomography based on phase-shifting schlieren deflectometry. , 2010, , .		2
61	Compressive sampling of pulse trains: Spread the spectrum!. , 2009, , .		16
62	DeQuantizing Compressed Sensing with non-Gaussian constraints. , 2009, , .		7
63	TV-regularized generation of planar images from omnicams. , 2009, , .		0
64	Sparsity-driven people localization algorithm: Evaluation in crowded scenes environments. , 2009, , .		18
65	Compressed sensing imaging techniques for radio interferometry. Monthly Notices of the Royal Astronomical Society, 2009, 395, 1733-1742.	1.6	229
66	CMOS compressed imaging by Random Convolution. , 2009, , .		44
67	Sport players detection and tracking with a mixed network of planar and omnidirectional cameras. , 2009, , .		36
68	A sparsity constrained inverse problem to locate people in a network of cameras. , 2009, , .		10
69	A Geometrical Study of Matching Pursuit Parametrization. IEEE Transactions on Signal Processing, 2008, 56, 2835-2848.	3.2	22
70	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
71	Fast spin Â±2 spherical harmonics transforms and application in cosmology. Journal of Computational Physics, 2007, 226, 2359-2371.	1.9	41
72	Fast Directional Correlation on the Sphere with Steerable Filters. Astrophysical Journal, 2006, 652, 820-832.	1.6	47

#	Article	IF	Citations
73	Correspondence Principle between Spherical and Euclidean Wavelets. Astrophysical Journal, 2005, 632, 15-28.	1.6	96
74	Stereographic wavelet frames on the sphere. Applied and Computational Harmonic Analysis, 2005, 19, 223-252.	1.1	80
75	Wavelet Spectrum Analysis Of Eit/Soho Images. Solar Physics, 2005, 228, 301-321.	1.0	14
76	THE 2-D WAVELET TRANSFORM IN IMAGE PROCESSING: TWO NOVEL APPLICATIONS. , 2004, , .		0
77	Angular multiselectivity analysis of images. , 2003, 5207, 196.		3
78	Wavelets on the sphere: implementation and approximations. Applied and Computational Harmonic Analysis, 2002, 13, 177-200.	1.1	113
79	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
80	<title>Penrose tilings, quasi-crystals, and wavelets</title>. , 1999, 3813, 28.		2