

Alessandro Foi

List of Publications by Year in descending order

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71
papers

12,620
citations

236925

25
h-index

223800

46
g-index

71
all docs

71
docs citations

71
times ranked

8100
citing authors

#	ARTICLE	IF	CITATIONS
1	Image Denoising by Sparse 3-D Transform-Domain Collaborative Filtering. IEEE Transactions on Image Processing, 2007, 16, 2080-2095.	9.8	6,923
2	Nonlocal Transform-Domain Filter for Volumetric Data Denoising and Reconstruction. IEEE Transactions on Image Processing, 2013, 22, 119-133.	9.8	665
3	Practical Poissonian-Gaussian Noise Modeling and Fitting for Single-Image Raw-Data. IEEE Transactions on Image Processing, 2008, 17, 1737-1754.	9.8	606
4	Pointwise Shape-Adaptive DCT for High-Quality Denoising and Deblocking of Grayscale and Color Images. IEEE Transactions on Image Processing, 2007, 16, 1395-1411.	9.8	576
5	Image denoising with block-matching and 3D filtering. , 2006, 6064, 354.		388
6	Video Denoising, Deblocking, and Enhancement Through Separable 4-D Nonlocal Spatiotemporal Transforms. IEEE Transactions on Image Processing, 2012, 21, 3952-3966.	9.8	312
7	From Local Kernel to Nonlocal Multiple-Model Image Denoising. International Journal of Computer Vision, 2010, 86, 1-32.	15.6	304
8	Image restoration by sparse 3D transform-domain collaborative filtering. Proceedings of SPIE, 2008, , .	0.8	301
9	Optimal Inversion of the Anscombe Transformation in Low-Count Poisson Image Denoising. IEEE Transactions on Image Processing, 2011, 20, 99-109.	9.8	267
10	Optimal Inversion of the Generalized Anscombe Transformation for Poisson-Gaussian Noise. IEEE Transactions on Image Processing, 2013, 22, 91-103.	9.8	260
11	Color Image Denoising via Sparse 3D Collaborative Filtering with Grouping Constraint in Luminance-Chrominance Space. Proceedings International Conference on Image Processing, 2007, , .	0.0	233
12	Evaluation and Comparison of Current Fetal Ultrasound Image Segmentation Methods for Biometric Measurements: A Grand Challenge. IEEE Transactions on Medical Imaging, 2014, 33, 797-813.	8.9	137
13	A Closed-Form Approximation of the Exact Unbiased Inverse of the Anscombe Variance-Stabilizing Transformation. IEEE Transactions on Image Processing, 2011, 20, 2697-2698.	9.8	129
14	Modeling the Performance of Image Restoration From Motion Blur. IEEE Transactions on Image Processing, 2012, 21, 3502-3517.	9.8	114
15	Variance Stabilization for Noisy+Estimate Combination in Iterative Poisson Denoising. IEEE Signal Processing Letters, 2016, 23, 1086-1090.	3.6	111
16	Clipped noisy images: Heteroskedastic modeling and practical denoising. Signal Processing, 2009, 89, 2609-2629.	3.7	105
17	Nonlocality-Reinforced Convolutional Neural Networks for Image Denoising. IEEE Signal Processing Letters, 2018, 25, 1216-1220.	3.6	86
18	Noise estimation and removal in MR imaging: The variance-stabilization approach. , 2011, , .		83

#	ARTICLE	IF	CITATIONS
19	Collaborative Filtering of Correlated Noise: Exact Transform-Domain Variance for Improved Shrinkage and Patch Matching. IEEE Transactions on Image Processing, 2020, 29, 8339-8354.	9.8	78
20	Compressed Sensing Image Reconstruction Via Recursive Spatially Adaptive Filtering. Proceedings International Conference on Image Processing, 2007, , .	0.0	72
21	Joint Removal of Random and Fixed-Pattern Noise Through Spatiotemporal Video Filtering. IEEE Transactions on Image Processing, 2014, 23, 4282-4296.	9.8	65
22	Noise Parameter Mismatch in Variance Stabilization, With an Application to Poisson-Gaussian Noise Estimation. IEEE Transactions on Image Processing, 2014, 23, 5348-5359.	9.8	59
23	Noise Measurement for Raw-Data of Digital Imaging Sensors by Automatic Segmentation of Nonuniform Targets. IEEE Sensors Journal, 2007, 7, 1456-1461.	4.7	52
24	Video denoising using separable 4D nonlocal spatiotemporal transforms. Proceedings of SPIE, 2011, , .	0.8	46
25	Noise variance estimation in nonlocal transform domain. , 2009, , .		41
26	Shape-adaptive DCT for denoising and image reconstruction. , 2006, 6064, 203.		38
27	Detecting anomalous structures by convolutional sparse models. , 2015, , .		36
28	Exact Transform-Domain Noise Variance for Collaborative Filtering of Stationary Correlated Noise. , 2019, , .		31
29	Cross-color BM3D filtering of noisy raw data. , 2009, , .		30
30	Blockwise Multi-Order Feature Regression for Real-Time Path-Tracing Reconstruction. ACM Transactions on Graphics, 2019, 38, 1-14.	7.2	28
31	Foveated Nonlocal Self-Similarity. International Journal of Computer Vision, 2016, 120, 78-110.	15.6	27
32	Nonlocal transform-domain denoising of volumetric data with groupwise adaptive variance estimation. Proceedings of SPIE, 2012, , .	0.8	26
33	Denoising of single-look SAR images based on variance stabilization and nonlocal filters. , 2010, , .		24
34	Foveated self-similarity in nonlocal image filtering. Proceedings of SPIE, 2012, , .	0.8	23
35	Poisson-gaussian denoising using the exact unbiased inverse of the generalized anscombe transformation. , 2012, , .		22
36	Difference of Gaussians revolved along elliptical paths for ultrasound fetal head segmentation. Computerized Medical Imaging and Graphics, 2014, 38, 774-784.	5.8	22

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37	Variance stabilization in Poisson image deblurring. , 2017, , .		22
38	Gaussian-Cauchy mixture modeling for robust signal-dependent noise estimation. , 2014, , .		21
39	Uniform Motion Blur in Poissonian Noise: Blur/Noise Tradeoff. IEEE Transactions on Image Processing, 2011, 20, 592-598.	9.8	20
40	Method for Simulating Dose Reduction in Digital Breast Tomosynthesis. IEEE Transactions on Medical Imaging, 2017, 36, 2331-2342.	8.9	20
41	A spatially adaptive Poissonian image deblurring. , 2005, , .		16
42	Denoising and interpolation of noisy Bayer data with adaptive cross-color filters. Proceedings of SPIE, 2008, , .	0.8	16
43	Indirect Estimation of Signal-Dependent Noise With Nonadaptive Heterogeneous Samples. IEEE Transactions on Image Processing, 2014, 23, 3459-3467.	9.8	16
44	Scale-invariant anomaly detection with multiscale group-sparse models. , 2016, , .		14
45	Restoration of low-dose digital breast tomosynthesis. Measurement Science and Technology, 2018, 29, 064003.	2.6	14
46	Mimicking Barkhausen noise measurement by in-situ transmission electron microscopy - effect of microstructural steel features on Barkhausen noise. Acta Materialia, 2021, 221, 117378.	7.9	13
47	On the inversion of the Anscombe transformation in low-count Poisson image denoising. , 2009, , .		12
48	Anisotropic Denoising of 3D Point Clouds by Aggregation of Multiple Surface-Adaptive Estimates. IEEE Transactions on Visualization and Computer Graphics, 2021, 27, 2851-2868.	4.4	11
49	<title>Threshold selection in transform-domain denoising of speckle pattern fringes</title>. , 2006, 6252, 472.		10
50	Modeling and Estimation of Signal-Dependent and Correlated Noise. Advances in Computer Vision and Pattern Recognition, 2018, , 1-36.	1.3	9
51	Technical Note: Noise models for virtual clinical trials of digital breast tomosynthesis. Medical Physics, 2019, 46, 2683-2689.	3.0	9
52	Pipeline for effective denoising of digital mammography and digital breast tomosynthesis. Proceedings of SPIE, 2017, , .	0.8	8
53	Anisotropically foveated nonlocal image denoising. , 2013, , .		7
54	Adaptive-Size Block Transforms for Signal-Dependent Noise Removal. , 2006, , .		6

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55	Sparse Overcomplete Denoising: Aggregation Versus Global Optimization. IEEE Signal Processing Letters, 2017, 24, 1468-1472.	3.6	6
56	Deblurring noisy radial-blurred images: spatially adaptive filtering approach. Proceedings of SPIE, 2008, , .	0.8	5
57	Anisotropic Spatiotemporal Regularization in Compressive Video Recovery by Adaptively Modeling the Residual Errors as Correlated Noise. , 2018, , .		5
58	Ring artifact reduction via multiscale nonlocal collaborative filtering of spatially correlated noise. Journal of Synchrotron Radiation, 2021, 28, 876-888.	2.4	5
59	Anisotropic local likelihood approximations: theory, algorithms, applications. , 2005, , .		5
60	Color high dynamic range imaging: The luminanceâ€œchrominance approach. International Journal of Imaging Systems and Technology, 2007, 17, 152-162.	4.1	4
61	Structural texture similarity metric based on intra-class variances. , 2014, , .		4
62	Unbiased Injection of Signal-Dependent Noise in Variance-Stabilized Range. IEEE Signal Processing Letters, 2016, 23, 1494-1498.	3.6	4
63	Ring artifact and Poisson noise attenuation via volumetric multiscale nonlocal collaborative filtering of spatially correlated noise. Journal of Synchrotron Radiation, 2022, 29, 829-842.	2.4	4
64	BM3D-HVS: Content-adaptive denoising for improved visual quality. IS&T International Symposium on Electronic Imaging, 2017, 2017, 48-55.	0.4	3
65	Low-Frequency Nonuniformity Correction in Static Thermal Images. , 2018, , .		3
66	Joint Sparse Recovery of Misaligned Multimodal Images via Adaptive Local and Nonlocal Cross-Modal Regularization. , 2019, , .		3
67	Noise modeling and variance stabilization of a computed radiography (CR) mammography system subject to fixed-pattern noise. Physics in Medicine and Biology, 2020, 65, 225035.	3.0	2
68	MIX-DISTRIBUTION MODELING FOR OVERCOMPLETE DENOISING. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 405-410.	0.4	1
69	Nonlocal foveated principal components. , 2014, , .		1
70	Spatially adaptive alpha-rooting in BM3D sharpening. , 2011, , .		1
71	Collaborative filtering based on group coordinates for smoothing and directional sharpening. , 2015, , .		0