

# Trainable Nonlinear Reaction Diffusion: A Flexible Framework for Image Denoising and Image Restoration

IEEE Transactions on Pattern Analysis and Machine Intelligence  
39, 1256-1272

DOI: [10.1109/tpami.2016.2596743](https://doi.org/10.1109/tpami.2016.2596743)

Citation Report

#	ARTICLE	IF	CITATIONS
1	A versatile sparse representation based post-processing method for improving image super-resolution. Neurocomputing, 2016, 205, 287-300.	3.5	3
2	A sparse representation based post-processing method for improving image super-resolution. , 2016, , .		0
3	Beyond a Gaussian Denoiser: Residual Learning of Deep CNN for Image Denoising. IEEE Transactions on Image Processing, 2017, 26, 3142-3155.	6.0	4,738
4	Hyperspectral Imagery Denoising by Deep Learning With Trainable Nonlinearity Function. IEEE Geoscience and Remote Sensing Letters, 2017, 14, 1963-1967.	1.4	69
5	Nonconvex Weighted $\ell_{2,1}$ Minimization Based Group Sparse Representation Framework for Image Denoising. IEEE Signal Processing Letters, 2017, 24, 1686-1690.	2.1	40
6	A Parallel Proximal Algorithm for Anisotropic Total Variation Minimization. IEEE Transactions on Image Processing, 2017, 26, 539-548.	6.0	43
7	Convolutional Neural Networks for Inverse Problems in Imaging: A Review. IEEE Signal Processing Magazine, 2017, 34, 85-95.	4.6	496
8	Fast and Accurate Image Super-Resolution Using a Combined Loss. , 2017, , .		8
9	Image denoising using group sparsity residual and external nonlocal self-similarity prior. , 2017, , .		3
10	Dilated Deep Residual Network for Image Denoising. , 2017, , .		64
11	LEARN: Learned Expertsâ€™ Assessment-Based Reconstruction Network for Sparse-Data CT. IEEE Transactions on Medical Imaging, 2018, 37, 1333-1347.	5.4	269
12	Global motion based video super-resolution reconstruction using discrete wavelet transform. Multimedia Tools and Applications, 2018, 77, 27641-27660.	2.6	11
13	A photon recycling approach to the denoising of ultra-low dose X-ray sequences. International Journal of Computer Assisted Radiology and Surgery, 2018, 13, 847-854.	1.7	8
14	Using Deep Neural Networks for Inverse Problems in Imaging: Beyond Analytical Methods. IEEE Signal Processing Magazine, 2018, 35, 20-36.	4.6	407
15	Deep Shrinkage Convolutional Neural Network for Adaptive Noise Reduction. IEEE Signal Processing Letters, 2018, 25, 224-228.	2.1	125
16	Angular-Based Preprocessing for Image Denoising. IEEE Signal Processing Letters, 2018, 25, 219-223.	2.1	8
17	Learning Parametric Sparse Models for Heavy Noisy Removal From Images. IEEE Access, 2018, 6, 15823-15834.	2.6	1
18	Learning Convex Regularizers for Optimal Bayesian Denoising. IEEE Transactions on Signal Processing, 2018, 66, 1093-1105.	3.2	10

#	ARTICLE	IF	CITATIONS
19	A rapid and accurate infrared image super-resolution method based on zoom mechanism. <i>Infrared Physics and Technology</i> , 2018, 88, 228-238.	1.3	7
20	Group sparsity residual constraint for image denoising with external nonlocal self-similarity prior. <i>Neurocomputing</i> , 2018, 275, 2294-2306.	3.5	38
21	An Extended Peronaâ€“Malik Model Based on Probabilistic Models. <i>Journal of Mathematical Imaging and Vision</i> , 2018, 60, 128-144.	0.8	3
22	Deep Residual Network with Sparse Feedback for Image Restoration. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 2417.	1.3	20
23	Universal Denoising Networks : A Novel CNN Architecture for Image Denoising. , 2018, , .		174
24	A High-Quality Denoising Dataset for Smartphone Cameras. , 2018, , .		356
25	Multi-scale Weighted Nuclear Norm Image Restoration. , 2018, , .		46
26	Convolutional neural networks for whole slide image superresolution. <i>Biomedical Optics Express</i> , 2018, 9, 5368.	1.5	13
27	Image Blind Denoising with Generative Adversarial Network Based Noise Modeling. , 2018, , .		342
28	Deep Memory Connected Neural Network for Optical Remote Sensing Image Restoration. <i>Remote Sensing</i> , 2018, 10, 1893.	1.8	21
29	RDS-Denoiser: a Detail-preserving Convolutional Neural Network for Image Denoising. , 2018, , .		2
30	Learning to See in the Dark. , 2018, , .		693
31	Random-noise suppression in seismic data: What can deep learning do?. , 2018, , .		36
32	Compression of Terawatt Long-Wavelength Laser Pulses Through Backward Raman Amplification. , 2018, , .		1
33	The Method of Analysis Granularity Determination for Multi-granularity Time Series. , 2018, , .		0
34	BoostNet: A Structured Deep Recursive Network to Boost Image Deblocking. , 2018, , .		1
35	DPW-SDNet: Dual Pixel-Wavelet Domain Deep CNNs for Soft Decoding of JPEG-Compressed Images. , 2018, , .		40
36	Boosting Sparsity-Induced Autoencoder: A Novel Sparse Feature Ensemble Learning for Image Classification. <i>Lecture Notes in Computer Science</i> , 2018, , 514-526.	1.0	0

#	ARTICLE	IF	CITATIONS
37	Learning multi-denoising autoencoding priors for image super-resolution. Journal of Visual Communication and Image Representation, 2018, 57, 152-162.	1.7	7
38	Integrating Local and Non-local Denoiser Priors for Image Restoration. , 2018, , .		20
39	Image Denoising with Deep Convolutional and Multi-directional LSTM Networks under Poisson Noise Environments. , 2018, , .		2
40	Blind Deblurring via a Novel Recursive Deep CNN Improved by Wavelet Transform. IEEE Access, 2018, 6, 69242-69252.	2.6	20
41	Group Sparsity Residual with Non-Local Samples for Image Denoising. , 2018, , .		12
42	Rendition: Reclaiming What a Black Box Takes Away. SIAM Journal on Imaging Sciences, 2018, 11, 2722-2756.	1.3	7
43	Deep BCD-Net Using Identical Encoding-Decoding CNN Structures for Iterative Image Recovery. , 2018, , .		80
44	A Progressively Enhanced Network for Video Satellite Imagery Superresolution. IEEE Signal Processing Letters, 2018, 25, 1630-1634.	2.1	54
45	Deepcasd: An End-to-End Approach for Multi-Spectral Image Super-Resolution. , 2018, , .		11
46	RED-LOCATION: A Novel CNN Architecture Based on Denoising Nonlinearities. , 2018, , .		2
47	Dmccn: Dual-Domain Multi-Scale Convolutional Neural Network for Compression Artifacts Removal. , 2018, , .		93
48	Image Restoration Based on Adaptive Dual-Domain Filtering. Mathematical Problems in Engineering, 2018, 2018, 1-17.	0.6	1
49	Robust Haze Removal Via Joint Deep Transmission and Scene Propagation. , 2018, , .		3
50	Image denoising via deep network based on edge enhancement. Journal of Ambient Intelligence and Humanized Computing, 2023, 14, 14795-14805.	3.3	7
51	Variational Deep Learning for Low-Dose Computed Tomography. , 2018, , .		5
52	Trainable spectral difference learning with spatial starting for hyperspectral image denoising. Neural Networks, 2018, 108, 272-286.	3.3	15
53	Fast, Trainable, Multiscale Denoising. , 2018, , .		2
54	Sparsity-Based Denoising of Photographic Images: From Model-Based to Data-Driven. Advances in Computer Vision and Pattern Recognition, 2018, , 37-62.	0.9	1

#	ARTICLE	IF	CITATIONS
55	Convolutional Neural Networks for Image Denoising and Restoration. Advances in Computer Vision and Pattern Recognition, 2018, , 93-123.	0.9	10
56	FFDNet: Toward a Fast and Flexible Solution for CNN-Based Image Denoising. IEEE Transactions on Image Processing, 2018, 27, 4608-4622.	6.0	1,554
57	Learned perceptual image enhancement. , 2018, , .		37
58	Kernel Wiener filtering model with low-rank approximation for image denoising. Information Sciences, 2018, 462, 402-416.	4.0	27
59	Class-Aware Fully Convolutional Gaussian and Poisson Denoising. IEEE Transactions on Image Processing, 2018, 27, 5707-5722.	6.0	60
60	SAR image despeckling using a dilated densely connected network. Remote Sensing Letters, 2018, 9, 857-866.	0.6	17
61	Nonlocality-Reinforced Convolutional Neural Networks for Image Denoising. IEEE Signal Processing Letters, 2018, 25, 1216-1220.	2.1	86
62	Modern regularization methods for inverse problems. Acta Numerica, 2018, 27, 1-111.	6.3	216
63	Convolutional Neural Networks for Noniterative Reconstruction of Compressively Sensed Images. IEEE Transactions on Computational Imaging, 2018, 4, 326-340.	2.6	86
64	Spherically contoured exponential scale mixture prior based nonlocal image restoration with ADMM framework. Journal of Visual Communication and Image Representation, 2018, 55, 374-392.	1.7	4
65	BLADE: Filter learning for general purpose computational photography. , 2018, , .		17
66	Deep CNN Denoiser prior for multiplicative noise removal. Multimedia Tools and Applications, 2019, 78, 29007-29019.	2.6	13
67	Low-rank tensor completion via combined non-local self-similarity and low-rank regularization. Neurocomputing, 2019, 367, 1-12.	3.5	33
68	Compressed Sensing and Its Applications. Applied and Numerical Harmonic Analysis, 2019, , .	0.1	6
70	Regularized Fourier Ptychography Using an Online Plug-and-play Algorithm. , 2019, , .		22
71	Multimodal Camera-Based Gender Recognition Using Human-Body Image With Two-Step Reconstruction Network. IEEE Access, 2019, 7, 104025-104044.	2.6	11
72	Computed Tomography (CT) Image Quality Enhancement via a Uniform Framework Integrating Noise Estimation and Super-Resolution Networks. Sensors, 2019, 19, 3348.	2.1	19
73	Brief review of image denoising techniques. Visual Computing for Industry, Biomedicine, and Art, 2019, 2, 7.	2.2	286

#	ARTICLE	IF	CITATIONS
74	Hyperparameter optimization in black-box image processing using differentiable proxies. ACM Transactions on Graphics, 2019, 38, 1-14.	4.9	36
75	Local Smoothing Constraint in Convolutional Neural Network for Image Denoising. Lecture Notes in Computer Science, 2019, , 402-410.	1.0	0
76	New image denoising algorithm via improved deep convolutional neural network with perceptive loss. Expert Systems With Applications, 2019, 138, 112815.	4.4	47
77	Acceleration of RED via vector extrapolation. Journal of Visual Communication and Image Representation, 2019, 63, 102575.	1.7	11
78	Deep Learning for Image Denoising: A Survey. Advances in Intelligent Systems and Computing, 2019, , 563-572.	0.5	31
79	Gradient nuclear norm minimization-based image filter. Modern Physics Letters B, 2019, 33, 1950214.	1.0	9
80	Residual learning of deep convolutional neural networks for image denoising. Journal of Intelligent and Fuzzy Systems, 2019, 37, 2809-2818.	0.8	13
81	A separationâ€“aggregation network for image denoising. Applied Soft Computing Journal, 2019, 83, 105603.	4.1	15
82	Deep Jpeg Image Deblocking Using Residual Maxout Units. , 2019, , .		1
83	Analysis of red blood cell deformability using parallel ladder electrodes in a microfluidic manipulation system. International Journal of Advanced Manufacturing Technology, 2019, 105, 4919-4928.	1.5	7
84	MR image reconstruction using deep learning: evaluation of network structure and loss functions. Quantitative Imaging in Medicine and Surgery, 2019, 9, 1516-1527.	1.1	68
85	A new wet etching method for black phosphorus layer number engineering: experiment, modeling and DFT simulations. , 2019, , .		0
86	A Non-Local CNN for Video Denoising. , 2019, , .		45
87	Entangling two high-Q microwave resonators assisted by a resonator terminated with SQUIDs. New Journal of Physics, 2019, 21, 073025.	1.2	3
88	An Adaptive Contourlet HMMâ€“PCNN Model of Sparse Representation for Image Denoising. IEEE Access, 2019, 7, 88243-88253.	2.6	17
89	A Perceptually Inspired New Blind Image Denoising Method Using $L_{\{1\}}$ and Perceptual Loss. IEEE Access, 2019, 7, 90538-90549.	2.6	10
90	Residual Dilated Network with Attention for Image Blind Denoising. , 2019, , .		3
91	Learning a Deep Convolutional Network for Subband Image Denoising. , 2019, , .		6

#	ARTICLE	IF	CITATIONS
92	Dynamic Residual Dense Network for Image Denoising. Sensors, 2019, 19, 3809.	2.1	28
93	EDCNN: A Novel Network for Image Denoising. , 2019, , .		4
94	Development of a denoising convolutional neural network-based algorithm for metal artifact reduction in digital tomosynthesis for arthroplasty: A phantom study. PLoS ONE, 2019, 14, e0222406.	1.1	5
95	High-Dimensional Embedding Denoising Autoencoding Prior for Color Image Restoration. , 2019, , .		0
96	Divide-and-conquer framework for image restoration and enhancement. Engineering Applications of Artificial Intelligence, 2019, 85, 830-844.	4.3	11
97	An Online Plug-and-Play Algorithm for Regularized Image Reconstruction. IEEE Transactions on Computational Imaging, 2019, 5, 395-408.	2.6	108
98	Boosting sparsity-induced autoencoder: A novel sparse feature ensemble learning for image classification. International Journal of Advanced Robotic Systems, 2019, 16, 172988141985347.	1.3	4
99	Efficient deep learning of image denoising using patch complexity local divide and deep conquer. Pattern Recognition, 2019, 96, 106945.	5.1	18
100	Low-Light Image Enhancement via the Absorption Light Scattering Model. IEEE Transactions on Image Processing, 2019, 28, 5679-5690.	6.0	70
101	SCENet: Secondary Domain Intercorrelation Enhanced Network for Alleviating Compressed Poisson Noises. Sensors, 2019, 19, 1939.	2.1	1
102	DN-ResNet: Efficient Deep Residual Network for Image Denoising. Lecture Notes in Computer Science, 2019, , 215-230.	1.0	11
103	Learning deep CNNs for impulse noise removal in images. Journal of Visual Communication and Image Representation, 2019, 62, 193-205.	1.7	35
104	Multi-View Image Denoising Using Convolutional Neural Network. Sensors, 2019, 19, 2597.	2.1	8
105	Multi-Level Wavelet Convolutional Neural Networks. IEEE Access, 2019, 7, 74973-74985.	2.6	139
106	An Intelligent Recurrent Neural Network with Long Short-Term Memory (LSTM) BASED Batch Normalization for Medical Image Denoising. Journal of Medical Systems, 2019, 43, 234.	2.2	32
107	Naturalness Preserved Image Aesthetic Enhancement with Perceptual Encoder Constraint. , 2019, , .		0
108	Fast Imaging in the Dark by using Convolutional Network. , 2019, , .		0
109	Adaptively Tuning a Convolutional Neural Network by Gate Process for Image Denoising. IEEE Access, 2019, 7, 63447-63456.	2.6	22

#	ARTICLE	IF	CITATIONS
110	From TV-L1 to Gated Recurrent Nets. , 2019, , .		1
111	Image Denoising via Multi-Scale Gated Fusion Network. IEEE Access, 2019, 7, 49392-49402.	2.6	5
112	Preliminary results of DSA denoising based on a weighted low-rank approach using an advanced neurovascular replication system. International Journal of Computer Assisted Radiology and Surgery, 2019, 14, 1117-1126.	1.7	4
113	External Patch-Based Image Restoration Using Importance Sampling. IEEE Transactions on Image Processing, 2019, 28, 4460-4470.	6.0	7
114	Deep Spatialâ€“Spectral Representation Learning for Hyperspectral Image Denoising. IEEE Transactions on Computational Imaging, 2019, 5, 635-648.	2.6	77
115	Deep Proximal Unrolling: Algorithmic Framework, Convergence Analysis and Applications. IEEE Transactions on Image Processing, 2019, 28, 5013-5026.	6.0	43
116	A mixed noise removal algorithm based on multi-fidelity modeling with nonsmooth and nonconvex regularization. Multimedia Tools and Applications, 2019, 78, 23117-23140.	2.6	5
117	Enhanced two-phase residual network for single image super-resolution. Journal of Visual Communication and Image Representation, 2019, 61, 188-197.	1.7	3
118	Multiple Description Coding Based on Convolutional Auto-Encoder. IEEE Access, 2019, 7, 26013-26021.	2.6	13
119	Unidirectional variation and deep CNN denoiser priors for simultaneously destriping and denoising optical remote sensing images. International Journal of Remote Sensing, 2019, 40, 5737-5748.	1.3	63
120	Multi-scale dilated convolution of convolutional neural network for image denoising. Multimedia Tools and Applications, 2019, 78, 19945-19960.	2.6	47
121	Image Deblocking Detection Based on a Convolutional Neural Network. IEEE Access, 2019, 7, 26432-26439.	2.6	14
122	An analytical approach for the simulation of realistic low-dose fluoroscopic images. International Journal of Computer Assisted Radiology and Surgery, 2019, 14, 601-610.	1.7	6
123	Dilated Residual Networks with Symmetric Skip Connection for image denoising. Neurocomputing, 2019, 345, 67-76.	3.5	69
124	Fully Symmetric Convolutional Network for Effective Image Denoising. Applied Sciences (Switzerland), 2019, 9, 778.	1.3	10
125	Joint reconstruction and classification of tumor cells and cell interactions in melanoma tissue sections with synthesized training data. International Journal of Computer Assisted Radiology and Surgery, 2019, 14, 587-599.	1.7	6
126	Deep gradient prior network for DEM super-resolution: Transfer learning from image to DEM. ISPRS Journal of Photogrammetry and Remote Sensing, 2019, 150, 80-90.	4.9	36
127	Learning Raw Image Denoising With Bayer Pattern Unification and Bayer Preserving Augmentation. , 2019, , .		38



#	ARTICLE	IF	CITATIONS
128	Image Enhancement Using Convolutional Neural Networks. , 2019, , .		4
129	Seeing Motion in the Dark. , 2019, , .		106
130	Learned Patch-Based Regularization for Inverse Problems in Imaging. , 2019, , .		4
131	Vision-based malaria parasite image analysis: a systematic review. International Journal of Bioinformatics Research and Applications, 2019, 15, 1.	0.1	3
132	Learning Deep Image Priors for Blind Image Denoising. , 2019, , .		4
133	RIDNet: Recursive Information Distillation Network for Color Image Denoising. , 2019, , .		12
134	FOCNet: A Fractional Optimal Control Network for Image Denoising. , 2019, , .		79
135	Denoising convolutional neural network with mask for salt and pepper noise. IET Image Processing, 2019, 13, 2604-2613.	1.4	17
136	DNN-Based Simultaneous Screen-to-Camera and Screen-to-Eye Communications. , 2019, , .		2
137	Self-Guided Network for Fast Image Denoising. , 2019, , .		105
138	JPEG Artifacts Reduction via Deep Convolutional Sparse Coding. , 2019, , .		63
139	Real Image Denoising With Feature Attention. , 2019, , .		330
140	Fast Image Restoration With Multi-Bin Trainable Linear Units. , 2019, , .		13
141	A Simple and Robust Deep Convolutional Approach to Blind Image Denoising. , 2019, , .		10
142	Rethink Gaussian Denoising Prior for Real-World Image Denoising. , 2019, , .		0
143	A Flexible Convolutional Solver for Fast Style Transfers. , 2019, , .		11
144	Model-Blind Video Denoising via Frame-To-Frame Training. , 2019, , .		54
145	Toward Convolutional Blind Denoising of Real Photographs. , 2019, , .		552

#	ARTICLE	IF	CITATIONS
146	DnM3Net: Multi-Scale & Multi-Level Shuffle-CNN Via Multi-Level Attention for Image Denoising. , 2019, , .		0
147	Zero-Shot Hyperspectral Image Denoising With Separable Image Prior. , 2019, , .		27
148	DNN-based Hyperspectral Image Denoising with Spatio-spectral Pre-training. , 2019, , .		1
149	Parametric Majorization for Data-Driven Energy Minimization Methods. , 2019, , .		0
150	Low Rank Poisson Denoising (LRPD): A Low Rank Approach Using Split Bregman Algorithm for Poisson Noise Removal From Images. , 2019, , .		3
151	Adaptively Tuning a Convolutional Neural Network by Gating Process for Image Denoising. , 2019, , .		1
152	DVDNET: A Fast Network for Deep Video Denoising. , 2019, , .		70
153	Transformed-Domain Robust Multiple-Exposure Blending With Huber Loss. IEEE Access, 2019, 7, 162282-162296.	2.6	9
154	Kindling the Darkness. , 2019, , .		567
155	Compression Artifact Removal with Stacked Multi-Context Channel-Wise Attention Network. , 2019, , .		3
156	Semantic Image Completion and Enhancement using Deep Learning. , 2019, , .		3
157	Denoising The Wireless Channel Corrupted Images Using Machine Learning. , 2019, , .		3
158	A Content-Adaptive Method for Image Denoising. IEEE Access, 2019, 7, 183222-183235.	2.6	1
159	DenoisingNet: An Efficient Convolutional Neural Network for Image Denoising. , 2019, , .		1
160	Deep Super-Resolution Network for Single Image Super-Resolution with Realistic Degradations. , 2019, , .		8
161	Linear Regression Supporting Vector Machine and Hybrid LOG Filter-Based Image Restoration. Journal of Intelligent Systems, 2019, 29, 1480-1495.	1.2	3
162	Real Color Image Denoising Using t-Product- Based Weighted Tensor Nuclear Norm Minimization. IEEE Access, 2019, 7, 182017-182026.	2.6	5
163	State-of-the-art analysis of image denoising methods using convolutional neural networks. IET Image Processing, 2019, 13, 2367-2380.	1.4	48

#	ARTICLE	IF	CITATIONS
164	Deep Residual Network Based Medical Image Reconstruction. , 2019, , .		3
165	Enhancing Quality for HEVC Compressed Videos. IEEE Transactions on Circuits and Systems for Video Technology, 2019, 29, 2039-2054.	5.6	127
166	D3R-Net: Dynamic Routing Residue Recurrent Network for Video Rain Removal. IEEE Transactions on Image Processing, 2019, 28, 699-712.	6.0	73
167	Single image fog removal algorithm in spatial domain using fractional order anisotropic diffusion. Multimedia Tools and Applications, 2019, 78, 10717-10732.	2.6	9
168	Multiple Description Convolutional Neural Networks for Image Compression. IEEE Transactions on Circuits and Systems for Video Technology, 2019, 29, 2494-2508.	5.6	26
169	T2FCS filter: Type 2 fuzzy and cuckoo search-based filter design for image restoration. Journal of Visual Communication and Image Representation, 2019, 58, 619-641.	1.7	25
170	A comprehensive survey on impulse and Gaussian denoising filters for digital images. Signal Processing, 2019, 157, 236-260.	2.1	99
171	Adaptive Texture-Preserving Denoising Method Using Gradient Histogram and Nonlocal Self-Similarity Priors. IEEE Transactions on Circuits and Systems for Video Technology, 2019, 29, 3222-3235.	5.6	18
172	Regularization by Denoising: Clarifications and New Interpretations. IEEE Transactions on Computational Imaging, 2019, 5, 52-67.	2.6	96
173	Convolutional neural networks analysed via inverse problem theory and sparse representations. IET Signal Processing, 2019, 13, 215-223.	0.9	2
174	Learning Filter Bank Sparsifying Transforms. IEEE Transactions on Signal Processing, 2019, 67, 504-519.	3.2	16
175	Non-Blind Image Deblurring Method by the Total Variation Deep Network. IEEE Access, 2019, 7, 37536-37544.	2.6	10
176	Research on image restoration algorithms based on BP neural network. Journal of Visual Communication and Image Representation, 2019, 59, 204-209.	1.7	25
177	Real-Time Denoising of Brillouin Optical Time Domain Analyzer With High Data Fidelity Using Convolutional Neural Networks. Journal of Lightwave Technology, 2019, 37, 2648-2653.	2.7	43
178	A Cartoon-Texture Approach for JPEG/JPEG 2000 Decompression Based on TGV and Shearlet Transform. IEEE Transactions on Image Processing, 2019, 28, 1356-1365.	6.0	7
179	Denoising Prior Driven Deep Neural Network for Image Restoration. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2019, 41, 2305-2318.	9.7	298
180	An improved method for single image super-resolution based on deep learning. Signal, Image and Video Processing, 2019, 13, 557-565.	1.7	19
181	Learning Converged Propagations With Deep Prior Ensemble for Image Enhancement. IEEE Transactions on Image Processing, 2019, 28, 1528-1543.	6.0	53

#	ARTICLE	IF	CITATIONS
182	Fast Single-Image Super-Resolution via Deep Network With Component Learning. IEEE Transactions on Circuits and Systems for Video Technology, 2019, 29, 3473-3486.	5.6	30
183	Robust, blind multichannel image identification and restoration using stack decoder. IET Image Processing, 2019, 13, 475-482.	1.4	6
184	ADMM for image restoration based on nonlocal simultaneous sparse Bayesian coding. Signal Processing: Image Communication, 2019, 70, 157-173.	1.8	9
185	DeepISP: Toward Learning an End-to-End Image Processing Pipeline. IEEE Transactions on Image Processing, 2019, 28, 912-923.	6.0	144
186	Real-World Image Denoising with Deep Boosting. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2020, 42, 3071-3087.	9.7	58
187	GPU acceleration of the KAZE image feature extraction algorithm. Journal of Real-Time Image Processing, 2020, 17, 1169-1182.	2.2	13
188	Deep Coupled ISTA Network for Multi-Modal Image Super-Resolution. IEEE Transactions on Image Processing, 2020, 29, 1683-1698.	6.0	43
189	Deep Neural Networks Motivated by Partial Differential Equations. Journal of Mathematical Imaging and Vision, 2020, 62, 352-364.	0.8	152
190	Optical fringe patterns filtering based on multi-stage convolution neural network. Optics and Lasers in Engineering, 2020, 126, 105853.	2.0	42
191	Hyperspectral Image Denoising via Matrix Factorization and Deep Prior Regularization. IEEE Transactions on Image Processing, 2020, 29, 565-578.	6.0	47
192	IENet: Internal and External Patch Matching ConvNet for Web Image Guided Denoising. IEEE Transactions on Circuits and Systems for Video Technology, 2020, 30, 3928-3942.	5.6	15
193	Speckle denoising in optical coherence tomography images using residual deep convolutional neural network. Multimedia Tools and Applications, 2020, 79, 15679-15695.	2.6	20
194	On the Convergence of Learning-Based Iterative Methods for Nonconvex Inverse Problems. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2020, 42, 3027-3039.	9.7	51
195	Multi-Channel and Multi-Model-Based Autoencoding Prior for Grayscale Image Restoration. IEEE Transactions on Image Processing, 2020, 29, 142-156.	6.0	25
196	A Flexible Deep CNN Framework for Image Restoration. IEEE Transactions on Multimedia, 2020, 22, 1055-1068.	5.2	65
197	Image denoising using deep CNN with batch renormalization. Neural Networks, 2020, 121, 461-473.	3.3	314
198	Convolutional Analysis Operator Learning: Acceleration and Convergence. IEEE Transactions on Image Processing, 2020, 29, 2108-2122.	6.0	33
199	A Pseudo-Blind Convolutional Neural Network for the Reduction of Compression Artifacts. IEEE Transactions on Circuits and Systems for Video Technology, 2020, 30, 1121-1135.	5.6	29

#	ARTICLE	IF	CITATIONS
200	W-LDMM: A Wasserstein driven low-dimensional manifold model for noisy image restoration. <i>Neurocomputing</i> , 2020, 371, 108-123.	3.5	3
201	Deep unfolding of a proximal interior point method for image restoration. <i>Inverse Problems</i> , 2020, 36, 034005.	1.0	73
202	Attention-guided CNN for image denoising. <i>Neural Networks</i> , 2020, 124, 117-129.	3.3	384
203	PixelRL: Fully Convolutional Network With Reinforcement Learning for Image Processing. <i>IEEE Transactions on Multimedia</i> , 2020, 22, 1704-1719.	5.2	64
204	Learning Stable Nonlinear Cross-Diffusion Models for Image Restoration. <i>Journal of Mathematical Imaging and Vision</i> , 2020, 62, 223-237.	0.8	4
205	New image denoising algorithm using monogenic wavelet transform and improved deep convolutional neural network. <i>Multimedia Tools and Applications</i> , 2020, 79, 7401-7412.	2.6	8
206	Deep learning-based super-resolution for small-angle neutron scattering data: attempt to accelerate experimental workflow. <i>MRS Communications</i> , 2020, 10, 11-17.	0.8	12
207	FDnCNN-based image denoising for multi-label localization measurement. <i>Measurement: Journal of the International Measurement Confederation</i> , 2020, 152, 107367.	2.5	13
208	A nonsubsampling countourlet transform based CNN for real image denoising. <i>Signal Processing: Image Communication</i> , 2020, 82, 115727.	1.8	16
209	Multifeature extracting CNN with concatenation for image denoising. <i>Signal Processing: Image Communication</i> , 2020, 81, 115690.	1.8	11
210	Neumann Networks for Linear Inverse Problems in Imaging. <i>IEEE Transactions on Computational Imaging</i> , 2020, 6, 328-343.	2.6	111
211	Reduction of JPEG compression artifacts based on DCT coefficients prediction. <i>Neurocomputing</i> , 2020, 384, 335-345.	3.5	20
212	Image Recognition Based on Multiscale Pooling Deep Convolution Neural Networks. <i>Complexity</i> , 2020, 2020, 1-13.	0.9	6
213	Convolutional Neural Network Combined with Half-Quadratic Splitting Method for Image Restoration. <i>Journal of Sensors</i> , 2020, 2020, 1-12.	0.6	3
214	Deep dilated and densely connected parallel convolutional groups for compression artifacts reduction. , 2020, 106, 102804.		5
215	End-to-End JPEG Decoding and Artifacts Suppression Using Heterogeneous Residual Convolutional Neural Network. , 2020, , .		3
216	Noisy-as-Clean: Learning Self-Supervised Denoising From Corrupted Image. <i>IEEE Transactions on Image Processing</i> , 2020, 29, 9316-9329.	6.0	90
218	Multispectral image denoising methods: A literature review. <i>Materials Today: Proceedings</i> , 2020, 33, 4666-4670.	0.9	2

#	ARTICLE	IF	CITATIONS
219	Edge-guided second-order total generalized variation for Gaussian noise removal from depth map. Scientific Reports, 2020, 10, 16329.	1.6	6
220	Blind compression artifact reduction using dense parallel convolutional neural network. Signal Processing: Image Communication, 2020, 89, 116009.	1.8	3
221	Security Assured CNN-Based Model for Reconstruction of Medical Images on the Internet of Healthcare Things. IEEE Access, 2020, 8, 126333-126346.	2.6	40
222	Lightweight image super-resolution with enhanced CNN. Knowledge-Based Systems, 2020, 205, 106235.	4.0	99
223	Image restoration of optical sparse aperture systems based on a dual target network. Results in Physics, 2020, 19, 103429.	2.0	14
224	Joint Analysis and Weighted Synthesis Sparsity Priors for Simultaneous Denoising and Destriping Optical Remote Sensing Images. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 6958-6982.	2.7	82
225	Self2Self With Dropout: Learning Self-Supervised Denoising From Single Image. , 2020, , .		172
226	GradNet Image Denoising. , 2020, , .		26
227	Identity Enhanced Residual Image Denoising. , 2020, , .		13
228	Momentum-Net: Fast and Convergent Iterative Neural Network for Inverse Problems. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2023, 45, 4915-4931.	9.7	52
229	Controllable Image Processing via Adaptive FilterBank Pyramid. IEEE Transactions on Image Processing, 2020, 29, 8043-8054.	6.0	14
230	Learning a Generic Adaptive Wavelet Shrinkage Function for Denoising. , 2020, , .		1
231	A Comprehensive Benchmark for Single Image Compression Artifact Reduction. IEEE Transactions on Image Processing, 2020, 29, 7845-7860.	6.0	34
232	NTIRE 2020 Challenge on Real-World Image Super-Resolution: Methods and Results. , 2020, , .		84
233	Learning Deeply Aggregated Alternating Minimization for General Inverse Problems. IEEE Transactions on Image Processing, 2020, 29, 8012-8027.	6.0	4
234	MOTF: Multi-objective Optimal Trilateral Filtering based partial moving frame algorithm for image denoising. Multimedia Tools and Applications, 2020, 79, 28411-28430.	2.6	66
235	Deep learning on image denoising: An overview. Neural Networks, 2020, 131, 251-275.	3.3	502
236	Real Image Denoising Based on Multi-Scale Residual Dense Block and Cascaded U-Net with Block-Connection. , 2020, , .		31

#	ARTICLE	IF	CITATIONS
237	Deep learning methods for solving linear inverse problems: Research directions and paradigms. Signal Processing, 2020, 177, 107729.	2.1	40
238	Deep Generative Adversarial Residual Convolutional Networks for Real-World Super-Resolution. , 2020, , .		19
239	Identifying Recurring Patterns with Deep Neural Networks for Natural Image Denoising. , 2020, , .		20
240	Total Deep Variation for Linear Inverse Problems. , 2020, , .		40
241	LD-Net: An Efficient Lightweight Denoising Model Based on Convolutional Neural Network. IEEE Open Journal of the Computer Society, 2020, 1, 173-181.	5.2	7
242	FastDVDnet: Towards Real-Time Deep Video Denoising Without Flow Estimation. , 2020, , .		110
243	Trainable TV- $\ L^1\ $ model as recurrent nets for low-level vision. Neural Computing and Applications, 2020, 32, 14603-14611.	3.2	3
244	3D Packing for Self-Supervised Monocular Depth Estimation. , 2020, , .		341
245	Camera Trace Erasing. , 2020, , .		9
246	Transfer Learning From Synthetic to Real-Noise Denoising With Adaptive Instance Normalization. , 2020, , .		103
247	Attention-model Guided Image Enhancement for Robotic Vision Applications. , 2020, , .		2
248	Cascaded Attention Guidance Network for Single Rainy Image Restoration. IEEE Transactions on Image Processing, 2020, 29, 9190-9203.	6.0	10
249	Gray-level image denoising with an improved weighted sparse coding. Journal of Visual Communication and Image Representation, 2020, 72, 102895.	1.7	11
250	Development Of New Fractal And Non-Fractal Deep Residual Networks For Deblocking Of Jpeg Decompressed Images. , 2020, , .		0
251	Hrnet: Hamiltonian Rescaling Network for Image Downscaling. , 2020, , .		9
252	Memory-Efficient Learning for Large-Scale Computational Imaging. IEEE Transactions on Computational Imaging, 2020, 6, 1403-1414.	2.6	39
253	Multilevel Edge Features Guided Network for Image Denoising. IEEE Transactions on Neural Networks and Learning Systems, 2021, 32, 3956-3970.	7.2	40
254	An Improved Combination of Image Denoisers Using Spatial Local Fusion Strategy. IEEE Access, 2020, 8, 150407-150421.	2.6	3

#	ARTICLE	IF	CITATIONS
255	Overview of Face Attribute Generation. , 2020, , .		0
256	High-Quality Soft Image Delivery with Deep Image Denoising. , 2020, , .		0
257	An Interferometric Phase Noise Reduction Method Based on Modified Denoising Convolutional Neural Network. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 4947-4959.	2.3	12
258	Deep Graph-Convolutional Image Denoising. IEEE Transactions on Image Processing, 2020, 29, 8226-8237.	6.0	105
259	CANet: Concatenated Attention Neural Network for Image Restoration. IEEE Signal Processing Letters, 2020, 27, 1615-1619.	2.1	9
260	Group Sparsity Residual Constraint With Non-Local Priors for Image Restoration. IEEE Transactions on Image Processing, 2020, 29, 8960-8975.	6.0	78
261	Blind Image Denoising via Dynamic Dual Learning. IEEE Transactions on Multimedia, 2021, 23, 2139-2152.	5.2	13
262	Investigating Task-Driven Latent Feasibility for Nonconvex Image Modeling. IEEE Transactions on Image Processing, 2020, 29, 7629-7640.	6.0	22
263	Image Restoration via Simultaneous Nonlocal Self-Similarity Priors. IEEE Transactions on Image Processing, 2020, 29, 8561-8576.	6.0	84
264	Grouped Multi-Scale Network for Real-World Image Denoising. IEEE Signal Processing Letters, 2020, 27, 2124-2128.	2.1	14
265	Learning Activation Functions in Deep (Spline) Neural Networks. IEEE Open Journal of Signal Processing, 2020, 1, 295-309.	2.3	19
266	SCGANet: Skip Connections Global Attention Network for Image Restoration. Computer Graphics Forum, 2020, 39, 507-518.	1.8	2
267	Image Denoising Algorithm Based on Local Adaptive Nonlinear Response Diffusion. IOP Conference Series: Materials Science and Engineering, 2020, 790, 012103.	0.3	2
268	Challenges in Sparse Image Reconstruction. International Journal of Image and Graphics, 2020, , 2150026.	1.2	0
269	Deep Morphological Filter Networks For Gaussian Denoising. , 2020, , .		5
270	Convolutional Neural Network with Inception Blocks for Image Compression Artifact Reduction. , 2020, , .		1
271	Joint restoration convolutional neural network for low-quality image super resolution. Visual Computer, 2022, 38, 31-50.	2.5	9
272	Learning Differentiable Sparse and Low Rank Networks for Audio-Visual Object Localization. , 2020, , .		2



#	ARTICLE	IF	CITATIONS
273	Improved Low-Count Quantitative PET Reconstruction With an Iterative Neural Network. IEEE Transactions on Medical Imaging, 2020, 39, 3512-3522.	5.4	43
274	Image Denoising With Deep Convolutional Neural and Multi-Directional Long Short-Term Memory Networks Under Poisson Noise Environments. IEEE Access, 2020, 8, 86998-87010.	2.6	19
275	Image deblocking via shape-adaptive low-rank prior and sparsity-based detail enhancement. Signal Processing: Image Communication, 2020, 86, 115874.	1.8	3
276	A CNN-based computational algorithm for nonlinear image diffusion problem. Multimedia Tools and Applications, 2020, 79, 23887-23908.	2.6	6
277	Deep Learning Techniques for Inverse Problems in Imaging. IEEE Journal on Selected Areas in Information Theory, 2020, 1, 39-56.	1.9	292
278	BM3D&AD: an improved BM3D denoising algorithm based on Gaussian threshold and angular distance. IET Image Processing, 2020, 14, 431-441.	1.4	6
279	Hyperspectral image restoration via CNN denoiser prior regularized low-rank tensor recovery. Computer Vision and Image Understanding, 2020, 197-198, 103004.	3.0	15
280	PDE Learning of Filtering and Propagation for Task-Aware Facial Intrinsic Image Analysis. IEEE Transactions on Cybernetics, 2022, 52, 1021-1034.	6.2	4
281	Convolutional Neural Network-based deblocking filter for SHVC in H.265. Signal, Image and Video Processing, 2020, 14, 1635-1645.	1.7	14
282	Boosting of Denoising Effect with Fusion Strategy. Applied Sciences (Switzerland), 2020, 10, 3857.	1.3	2
283	Dual Path Denoising Network for Real Photographic Noise. IEEE Signal Processing Letters, 2020, 27, 860-864.	2.1	7
284	Unsupervised detail-preserving network for high quality monocular depth estimation. Neurocomputing, 2020, 404, 1-13.	3.5	6
285	Image Restoration via Deep Memory-Based Latent Attention Network. IEEE Access, 2020, 8, 104728-104739.	2.6	6
286	Learning a Multi-scale Deep Residual Network of Dilated-Convolution for Image Denoising. , 2020, , .		6
287	Gaussian Pyramid of Conditional Generative Adversarial Network for Real-World Noisy Image Denoising. Neural Processing Letters, 2020, 51, 2669-2684.	2.0	8
288	Residual learning based densely connected deep dilated network for joint deblocking and super resolution. Applied Intelligence, 2020, 50, 2177-2193.	3.3	9
289	Image Denoising via Sequential Ensemble Learning. IEEE Transactions on Image Processing, 2020, 29, 5038-5049.	6.0	33
290	A New Recurrent Plug-and-Play Prior Based on the Multiple Self-Similarity Network. IEEE Signal Processing Letters, 2020, 27, 451-455.	2.1	17

#	ARTICLE	IF	CITATIONS
291	NLH: A Blind Pixel-Level Non-Local Method for Real-World Image Denoising. IEEE Transactions on Image Processing, 2020, 29, 5121-5135.	6.0	52
292	Image Recovery via Transform Learning and Low-Rank Modeling: The Power of Complementary Regularizers. IEEE Transactions on Image Processing, 2020, 29, 5310-5323.	6.0	41
293	Adaptive Deep Cascade Broad Learning System and Its Application in Image Denoising. IEEE Transactions on Cybernetics, 2021, 51, 4450-4463.	6.2	42
294	Blind Universal Bayesian Image Denoising With Gaussian Noise Level Learning. IEEE Transactions on Image Processing, 2020, 29, 4885-4897.	6.0	75
295	Variational Networks: An Optimal Control Approach to Early Stopping Variational Methods for Image Restoration. Journal of Mathematical Imaging and Vision, 2020, 62, 396-416.	0.8	22
296	Graph-Based Non-Convex Low-Rank Regularization for Image Compression Artifact Reduction. IEEE Transactions on Image Processing, 2020, 29, 5374-5385.	6.0	15
297	A multiscale dilated residual network for image denoising. Multimedia Tools and Applications, 2020, 79, 34443-34458.	2.6	8
298	Image Restoration for Low-Dose CT via Transfer Learning and Residual Network. IEEE Access, 2020, 8, 112078-112091.	2.6	20
299	Two-stream deep sparse network for accurate and efficient image restoration. Computer Vision and Image Understanding, 2020, 200, 103029.	3.0	2
300	Image Denoising With Generative Adversarial Networks and its Application to Cell Image Enhancement. IEEE Access, 2020, 8, 82819-82831.	2.6	26
301	Edge-aware image filtering using a structure-guided CNN. IET Image Processing, 2020, 14, 472-479.	1.4	4
302	Detail retaining convolutional neural network for image denoising. Journal of Visual Communication and Image Representation, 2020, 71, 102774.	1.7	25
303	Locally Adaptive Channel Attention-Based Network for Denoising Images. IEEE Access, 2020, 8, 34686-34695.	2.6	3
304	Double Recurrent Dense Network for Single Image Deraining. IEEE Access, 2020, 8, 30615-30627.	2.6	2
305	Real-time attacks on robust watermarking tools in the wild by CNN. Journal of Real-Time Image Processing, 2020, 17, 631-641.	2.2	19
306	Adaptive Quantile Sparse Image (AQuaSI) Prior for Inverse Imaging Problems. IEEE Transactions on Computational Imaging, 2020, 6, 503-517.	2.6	5
307	Learning Deep Gradient Descent Optimization for Image Deconvolution. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 5468-5482.	7.2	57
308	Fusionnet: Multispectral Fusion of RGB and NIR Images Using Two Stage Convolutional Neural Networks. IEEE Access, 2020, 8, 23912-23919.	2.6	15

#	ARTICLE	IF	CITATIONS
309	Image Blind Denoising Using a Generative Adversarial Network for LED Chip Visual Localization. IEEE Sensors Journal, 2020, 20, 6582-6595.	2.4	7
310	The classification and denoising of image noise based on deep neural networks. Applied Intelligence, 2020, 50, 2194-2207.	3.3	20
311	Can learning from natural image denoising be used for seismic data interpolation?. Geophysics, 2020, 85, WA115-WA136.	1.4	71
312	Efficient and Interpretable Deep Blind Image Deblurring Via Algorithm Unrolling. IEEE Transactions on Computational Imaging, 2020, 6, 666-681.	2.6	96
313	Connecting Image Denoising and High-Level Vision Tasks via Deep Learning. IEEE Transactions on Image Processing, 2020, 29, 3695-3706.	6.0	97
314	On Combining CNN With Non-Local Self-Similarity Based Image Denoising Methods. IEEE Access, 2020, 8, 14789-14797.	2.6	10
315	Non-contrast coronary magnetic resonance angiography: current frontiers and future horizons. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2020, 33, 591-612.	1.1	20
316	Background noise suppression using trainable nonlinear reaction diffusion assisted by robust principal component analysis. Exploration Geophysics, 2020, 51, 642-651.	0.5	5
317	Solving RED With Weighted Proximal Methods. IEEE Signal Processing Letters, 2020, 27, 501-505.	2.1	1
318	Coarse-to-Fine CNN for Image Super-Resolution. IEEE Transactions on Multimedia, 2021, 23, 1489-1502.	5.2	122
319	Residual Dense Network for Image Restoration. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2021, 43, 2480-2495.	9.7	443
320	Learning Hadamard-Product-Propagation for Image Dehazing and Beyond. IEEE Transactions on Circuits and Systems for Video Technology, 2021, 31, 1366-1379.	5.6	15
321	Low-rank decomposition on transformed feature maps domain for image denoising. Visual Computer, 2021, 37, 1899-1915.	2.5	5
322	Wavelet-Based Deep Auto Encoder-Decoder (WDAED)-Based Image Compression. IEEE Transactions on Circuits and Systems for Video Technology, 2021, 31, 1452-1462.	5.6	36
323	High-quality multi-wavelength lensfree microscopy based on nonlinear optimization. Optics and Lasers in Engineering, 2021, 137, 106402.	2.0	5
324	Image denoising using complex-valued deep CNN. Pattern Recognition, 2021, 111, 107639.	5.1	96
325	Hybrid sparsity learning for image restoration: An iterative and trainable approach. Signal Processing, 2021, 178, 107751.	2.1	8
326	DOF: A Demand-Oriented Framework for Image Denoising. IEEE Transactions on Industrial Informatics, 2021, 17, 5369-5379.	7.2	10

#	ARTICLE	IF	CITATIONS
327	Video Denoising by Combining Patch Search and CNNs. Journal of Mathematical Imaging and Vision, 2021, 63, 73-88.	0.8	9
328	Deep recursive network for image denoising with global non-linear smoothness constraint prior. Neurocomputing, 2021, 426, 147-161.	3.5	9
329	Half quadratic splitting method combined with convolution neural network for blind image deblurring. Multimedia Tools and Applications, 2021, 80, 3489-3504.	2.6	4
330	SAR Speckle Removal Using Hybrid Frequency Modulations. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 3956-3966.	2.7	52
331	Image denoising via deep residual convolutional neural networks. Signal, Image and Video Processing, 2021, 15, 1-8.	1.7	28
332	A General Decoupled Learning Framework for Parameterized Image Operators. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2021, 43, 33-47.	9.7	19
333	Simultaneous Fidelity and Regularization Learning for Image Restoration. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2021, 43, 284-299.	9.7	54
334	Unsupervised Image Restoration Using Partially Linear Denoisers. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2021, PP, 1-1.	9.7	3
335	Deep Priors Inside an Unrolled and Adaptive Deconvolution Model. Lecture Notes in Computer Science, 2021, , 371-388.	1.0	0
336	Error feedback denoising network. IET Image Processing, 2021, 15, 1508-1517.	1.4	0
337	Deep K-SVD Denoising. IEEE Transactions on Image Processing, 2021, 30, 5944-5955.	6.0	63
338	Towards Fast and Robust Real Image Denoising With Attentive Neural Network and PID Controller. IEEE Transactions on Multimedia, 2022, 24, 2366-2377.	5.2	21
339	Mixed distortion image enhancement method based on joint of deep residuals learning and reinforcement learning. Signal, Image and Video Processing, 2021, 15, 995-1002.	1.7	4
340	DRNet: A Deep Neural Network With Multi-Layer Residual Blocks Improves Image Denoising. IEEE Access, 2021, 9, 79936-79946.	2.6	13
341	Learning a Model-Driven Variational Network for Deformable Image Registration. IEEE Transactions on Medical Imaging, 2022, 41, 199-212.	5.4	9
342	Generalized Intersection Algorithms with Fixed Points for Image Decomposition Learning. SIAM Journal on Imaging Sciences, 2021, 14, 1273-1305.	1.3	1
343	Ultrasonic Logging Image Denoising Based on CNN and Feature Attention. IEEE Access, 2021, 9, 116845-116856.	2.6	3
344	Image De-Noising With Machine Learning: A Review. IEEE Access, 2021, 9, 93338-93363.	2.6	26

#	ARTICLE	IF	CITATIONS
345	Denoising Medical Images Using Deep Learning in IoT Environment. Computers, Materials and Continua, 2021, 69, 3127-3143.	1.5	4
346	Accurate and Fast Image Denoising via Attention Guided Scaling. IEEE Transactions on Image Processing, 2021, 30, 6255-6265.	6.0	27
347	Two-Stream Learning-Based Compressive Sensing Network With High-Frequency Compensation for Effective Image Denoising. IEEE Access, 2021, 9, 91974-91982.	2.6	5
348	3D Remote Healthcare for Noisy CT Images in the Internet of Things Using Edge Computing. IEEE Access, 2021, 9, 15170-15180.	2.6	7
349	Distributed Learning and Inference With Compressed Images. IEEE Transactions on Image Processing, 2021, 30, 3069-3083.	6.0	4
350	Triply Complementary Priors for Image Restoration. IEEE Transactions on Image Processing, 2021, 30, 5819-5834.	6.0	42
351	Autoencoder-Inspired Convolutional Network-Based Super-Resolution Method in MRI. IEEE Journal of Translational Engineering in Health and Medicine, 2021, 9, 1-13.	2.2	19
352	Models for Multiplicative Noise Removal. , 2021, , 1-34.		1
353	DBDnet: A Deep Boosting Strategy for Image Denoising. IEEE Transactions on Multimedia, 2022, 24, 3157-3168.	5.2	17
354	DarkGAN: Night Image Enhancement Using Generative Adversarial Networks. Communications in Computer and Information Science, 2021, , 293-302.	0.4	1
355	Filter Design for Image Decomposition and Applications to Forensics. , 2021, , 1-28.		1
356	Cross-Scale Residual Network: A General Framework for Image Super-Resolution, Denoising, and Deblocking. IEEE Transactions on Cybernetics, 2022, 52, 5855-5867.	6.2	16
357	PID Controller-Guided Attention Neural Network Learning for Fast and Effective Real Photographs Denoising. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 3010-3023.	7.2	21
358	BoostNet: A Boosted Convolutional Neural Network for Image Blind Denoising. IEEE Access, 2021, 9, 115145-115164.	2.6	4
359	Artificial Intelligence Techniques in Medical Imaging for Detection of Coronavirus (COVID-19/SARS-COV-2): A Brief Survey. Algorithms for Intelligent Systems, 2021, , 255-289.	0.5	0
360	A Non-Local Superpatch-Based Algorithm Exploiting Low Rank Prior for Restoration of Hyperspectral Images. IEEE Transactions on Image Processing, 2021, 30, 6335-6348.	6.0	10
361	Nonconvex Structural Sparsity Residual Constraint for Image Restoration. IEEE Transactions on Cybernetics, 2022, 52, 12440-12453.	6.2	12
362	Digital Retina: A Way to Make the City Brain More Efficient by Visual Coding. IEEE Transactions on Circuits and Systems for Video Technology, 2021, 31, 4147-4161.	5.6	19

#	ARTICLE	IF	CITATIONS
363	SSCAN: A Spatialâ€“Spectral Cross Attention Network for Hyperspectral Image Denoising. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	1.4	6
364	An impulse noise removal model algorithm based on logarithmic image prior for medical image. Signal, Image and Video Processing, 2021, 15, 1145-1152.	1.7	10
365	Plug-and-Play Image Restoration With Deep Denoiser Prior. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 6360-6376.	9.7	289
366	Subband Adaptive Image Deblocking Using Wavelet Based Convolutional Neural Networks. IEEE Access, 2021, 9, 62593-62601.	2.6	4
367	Frequency Attention Network: Blind Noise Removal for Real Images. Lecture Notes in Computer Science, 2021, , 168-184.	1.0	1
368	Deep Iterative Residual Convolutional Network for Single Image Super-Resolution. , 2021, , .		4
369	Mars Image Super-Resolution Based on Generative Adversarial Network. IEEE Access, 2021, 9, 108889-108898.	2.6	10
370	Path-Restore: Learning Network Path Selection for Image Restoration. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 7078-7092.	9.7	29
371	Asymmetric CNN for Image Superresolution. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 3718-3730.	5.9	56
372	COLA-Net: Collaborative Attention Network for Image Restoration. IEEE Transactions on Multimedia, 2022, 24, 1366-1377.	5.2	40
373	Edge-Aware Filter Based on Adaptive Patch Variance Weighted Average. IEEE Access, 2021, 9, 118291-118306.	2.6	4
374	Exploiting Deep Generative Prior for Versatile Image Restoration and Manipulation. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 7474-7489.	9.7	73
375	Towards Boosting Channel Attention for Real Image Denoising: Sub-band Pyramid Attention. Lecture Notes in Computer Science, 2021, , 303-314.	1.0	1
376	Adaptive algorithm for reducing pulse noise level in images from CCTV cameras. Tekhnologiya i Konstruirovaniye V Elektronnoi Apparature, 2021, , 21-27.	0.1	0
377	RBDN: Residual Bottleneck Dense Network for Image Super-Resolution. IEEE Access, 2021, 9, 103440-103451.	2.6	8
378	Image Denoising Using Superpixel-Based PCA. IEEE Transactions on Multimedia, 2021, 23, 2297-2309.	5.2	12
379	A Local Search Maximum Likelihood Parameter Estimator of Chirp Signal. Applied Sciences (Switzerland), 2021, 11, 673.	1.3	6
380	Self-Organising Textures. Distill, 2021, 6, .	5.3	12

#	ARTICLE	IF	CITATIONS
381	Accurate and Lightweight Image Super-Resolution With Model-Guided Deep Unfolding Network. IEEE Journal on Selected Topics in Signal Processing, 2021, 15, 240-252.	7.3	33
382	Synthetic aperture radar image despeckling with a residual learning of convolutional neural network. Optik, 2021, 228, 165876.	1.4	9
383	Dual-Stream Multi-Path Recursive Residual Network for JPEG Image Compression Artifacts Reduction. IEEE Transactions on Circuits and Systems for Video Technology, 2021, 31, 467-479.	5.6	29
384	An Image Processing Method: Edge-guided Directional Walk Mean Smoothing. Journal of Physics: Conference Series, 2021, 1815, 012020.	0.3	2
385	A Deep Primal-Dual Proximal Network for Image Restoration. IEEE Journal on Selected Topics in Signal Processing, 2021, 15, 190-203.	7.3	9
386	Video Image Deblurring Algorithm Based on Denoising Engine. , 2021, , .		0
387	Context-Enhanced Representation Learning for Single Image Deraining. International Journal of Computer Vision, 2021, 129, 1650-1674.	10.9	19
388	Synthesizing Camera Noise Using Generative Adversarial Networks. IEEE Transactions on Visualization and Computer Graphics, 2021, 27, 2123-2135.	2.9	11
389	Algorithm Unrolling: Interpretable, Efficient Deep Learning for Signal and Image Processing. IEEE Signal Processing Magazine, 2021, 38, 18-44.	4.6	495
390	Automatic Extraction of <i>Sargassum</i> Features From Sentinel-2 MSI Images. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 2579-2597.	2.7	34
391	Recent Study on Image Denoising using Deep CNN Techniques. , 2021, , .		6
392	Fast correlated-photon imaging enhanced by deep learning. Optica, 2021, 8, 323.	4.8	15
393	Successive Graph Convolutional Network for Image De-raining. International Journal of Computer Vision, 2021, 129, 1691-1711.	10.9	31
394	Boosting the signal-to-noise of low-field MRI with deep learning image reconstruction. Scientific Reports, 2021, 11, 8248.	1.6	58
395	A new blind image denoising method based on asymmetric generative adversarial network. IET Image Processing, 2021, 15, 1260-1272.	1.4	11
396	DSTnet: a new discrete shearlet transform-based CNN model for image denoising. Multimedia Systems, 2021, 27, 1165-1177.	3.0	7
397	Joint Denoising of Stereo Images Using 3D CNN. , 2021, , .		2
398	Inference and Learning in a Latent Variable Model for Beta Distributed Interval Data. Entropy, 2021, 23, 552.	1.1	2

#	ARTICLE	IF	CITATIONS
399	Performance Comparison of Image Restoration techniques using CNN and their applications. , 2021, , .		1
400	Multi-Stage Raw Video Denoising with Adversarial Loss and Gradient Mask. , 2021, , .		2
401	Application of Adaptive Image Restoration Algorithm Based on Sparsity of Block Structure in Environmental Art Design. Complexity, 2021, 2021, 1-16.	0.9	2
402	CNN and multi-feature extraction based denoising of CT images. Biomedical Signal Processing and Control, 2021, 67, 102545.	3.5	16
403	Synergic Feature Attention for Image Restoration. , 2021, , .		2
404	Polymodal Method of Improving the Quality of Photogrammetric Images and Models. Energies, 2021, 14, 3457.	1.6	3
405	Remote sensing image recovery via enhanced residual learning and dual-luminance scheme. Knowledge-Based Systems, 2021, 222, 107013.	4.0	11
406	Improved Image Denoising Methodology using Deep CNN Bilateral Filter Compared to Additional Methods. International Journal of Engineering and Advanced Technology, 2021, 10, 191-196.	0.2	0
407	Deep Learning for Linear Inverse Problems Using the Plug-and-Play Priors Framework. , 2021, , .		1
408	Toward Interactive Modulation for Photo-Realistic Image Restoration. , 2021, , .		12
409	Learning Integrodifferential Models for Image Denoising. , 2021, , .		2
410	Robust Image Denoising with Texture-Aware Neural Network. , 2021, , .		1
411	Iterative feature refinement with network-driven prior for image restoration. Pattern Analysis and Applications, 2021, 24, 1623-1634.	3.1	1
412	Image super-resolution based on residually dense distilled attention network. Neurocomputing, 2021, 443, 47-57.	3.5	8
413	An Analytical Review on Rough Set Based Image Clustering. Archives of Computational Methods in Engineering, 2022, 29, 1643-1672.	6.0	12
414	Graph Attention Neural Network for Image Restoration. , 2021, , .		4
415	NFCNN: toward a noise fusion convolutional neural network for image denoising. Signal, Image and Video Processing, 2022, 16, 175-183.	1.7	7
416	Single image restoration through $\hat{\alpha}$ , "2-relaxed truncated $\hat{\alpha}$ , "0 analysis-based sparse optimization in tight frames. Neurocomputing, 2021, 443, 272-291.	3.5	2



#	ARTICLE	IF	CITATIONS
417	PDE-guided reservoir computing for image denoising with small data. <i>Chaos</i> , 2021, 31, 073103.	1.0	3
418	Sparse representation with enhanced nonlocal self-similarity for image denoising. <i>Machine Vision and Applications</i> , 2021, 32, 1.	1.7	8
419	A novel complex-valued convolutional neural network for medical image denoising. <i>Biomedical Signal Processing and Control</i> , 2021, 69, 102859.	3.5	32
420	Spectral-Smoothness and Non-Local Self-Similarity Regularized Subspace Low-Rank Learning Method for Hyperspectral Mixed Denoising. <i>Remote Sensing</i> , 2021, 13, 3196.	1.8	1
421	Bayesian sparse hierarchical model for image denoising. <i>Signal Processing: Image Communication</i> , 2021, 96, 116299.	1.8	7
422	Reduction of Compression Artifacts Using a Densely Cascading Image Restoration Network. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 7803.	1.3	2
423	Probabilistic cracking prediction via deep learned electrical tomography. <i>Structural Health Monitoring</i> , 0, , 147592172110372.	4.3	6
424	Computer-Aided Detection (CADe) System with Optical Coherent Tomography for Melanin Morphology Quantification in Melasma Patients. <i>Diagnostics</i> , 2021, 11, 1498.	1.3	11
425	Attention-based Pyramid Dilated Lattice Network for Blind Image Denoising. , 2021, , .		1
426	Infrared thermal imaging denoising method based on second-order channel attention mechanism. <i>Infrared Physics and Technology</i> , 2021, 116, 103789.	1.3	12
427	Designing and training of a dual CNN for image denoising. <i>Knowledge-Based Systems</i> , 2021, 226, 106949.	4.0	82
428	Multi-scale Xception based depthwise separable convolution for single image super-resolution. <i>PLoS ONE</i> , 2021, 16, e0249278.	1.1	15
429	Ghost-Free HDR Imaging Via Unrolling Low-Rank Matrix Completion. , 2021, , .		4
430	A support-denoiser-driven framework for single image restoration. <i>Journal of Computational and Applied Mathematics</i> , 2021, 393, 113495.	1.1	2
431	Building a modified block matching kernel based on Wave Atom transform for efficient image denoising. <i>Egyptian Journal of Remote Sensing and Space Science</i> , 2021, 24, 857-878.	1.1	1
432	Compressed image restoration via deep deblocker driven unified framework. <i>Knowledge-Based Systems</i> , 2021, 228, 107268.	4.0	4
433	Dual non-autonomous deep convolutional neural network for image denoising. <i>Information Sciences</i> , 2021, 572, 263-276.	4.0	14
434	R3L: Connecting Deep Reinforcement Learning To Recurrent Neural Networks For Image Denoising Via Residual Recovery. , 2021, , .		4

#	ARTICLE	IF	CITATIONS
435	Texture compensation with multi-scale dilated residual blocks for image denoising. Neural Computing and Applications, 2021, 33, 12957.	3.2	6
436	Image Restoration Based on End-to-End Unrolled Network. Photonics, 2021, 8, 376.	0.9	4
437	Cascaded and Recursive ConvNets (CRCNN): An effective and flexible approach for image denoising. Signal Processing: Image Communication, 2021, 99, 116420.	1.8	8
438	An effective deep network using target vector update modules for image restoration. Pattern Recognition, 2022, 122, 108333.	5.1	14
439	Artifacts Reduction Using Multi-Scale Feature Attention Network in Compressed Medical Images. Computers, Materials and Continua, 2022, 70, 3267-3279.	1.5	3
440	A Model-Driven Deep Unfolding Method for JPEG Artifacts Removal. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 6802-6816.	7.2	18
441	Wavelet Frame-Based Image Restoration via $\ell_{2,1}$ -Relaxed Truncated $\ell_0$ Regularization and Nonlocal Estimation. IEEE Signal Processing Letters, 2021, 28, 1605-1609.	2.1	2
442	NormalNet: Learning-Based Mesh Normal Denoising via Local Partition Normalization. IEEE Transactions on Circuits and Systems for Video Technology, 2021, 31, 4697-4710.	5.6	5
443	Regularization by Denoising via Fixed-Point Projection (RED-PRO). SIAM Journal on Imaging Sciences, 2021, 14, 1374-1406.	1.3	34
444	Multiframe-to-Multiframe Network for Video Denoising. IEEE Transactions on Multimedia, 2022, 24, 2164-2178.	5.2	16
445	Translating Numerical Concepts for PDEs into Neural Architectures. Lecture Notes in Computer Science, 2021, , 294-306.	1.0	6
446	Deep Universal Blind Image Denoising. , 2021, , .		12
447	Image Restoration via Reconciliation of Group Sparsity and Low-Rank Models. IEEE Transactions on Image Processing, 2021, 30, 5223-5238.	6.0	58
448	Beyond Brightening Low-light Images. International Journal of Computer Vision, 2021, 129, 1013-1037.	10.9	252
449	CAS: Correlation Adaptive Sparse Modeling for Image Denoising. IEEE Transactions on Computational Imaging, 2021, 7, 638-647.	2.6	13
450	TEMDnet: A Novel Deep Denoising Network for Transient Electromagnetic Signal With Signal-to-Image Transformation. IEEE Transactions on Geoscience and Remote Sensing, 2021, , 1-18.	2.7	230
451	Fixed-Point and Objective Convergence of Plug-and-Play Algorithms. IEEE Transactions on Computational Imaging, 2021, 7, 337-348.	2.6	22
452	The Concatenated Dynamic Convolutional and Sparse Coding on Image Artifacts Reduction. Lecture Notes in Computer Science, 2021, , 99-114.	1.0	0

#	ARTICLE	IF	CITATIONS
453	Deep Boosting for Image Denoising. Lecture Notes in Computer Science, 2018, , 3-19.	1.0	54
454	Deep Burst Denoising. Lecture Notes in Computer Science, 2018, , 560-577.	1.0	59
455	Image Denoising Using a Deep Encoder-Decoder Network with Skip Connections. Lecture Notes in Computer Science, 2018, , 554-565.	1.0	15
456	A Brief Review of Image Denoising Algorithms and Beyond. The Springer Series on Challenges in Machine Learning, 2019, , 1-21.	10.4	30
457	Proximal Splitting Networks for Image Restoration. Lecture Notes in Computer Science, 2019, , 3-17.	1.0	6
458	CNN-Based Real-Time Parameter Tuning for Optimizing Denoising Filter Performance. Lecture Notes in Computer Science, 2019, , 112-125.	1.0	5
459	Practical Deep Raw Image Denoising on Mobile Devices. Lecture Notes in Computer Science, 2020, , 1-16.	1.0	46
460	Spatial-Adaptive Network for Single Image Denoising. Lecture Notes in Computer Science, 2020, , 171-187.	1.0	75
461	Deep Decomposition Learning for Inverse Imaging Problems. Lecture Notes in Computer Science, 2020, , 510-526.	1.0	15
462	FLOT: Scene Flow on Point Clouds Guided by Optimal Transport. Lecture Notes in Computer Science, 2020, , 527-544.	1.0	69
463	An ELU Network with Total Variation for Image Denoising. Lecture Notes in Computer Science, 2017, , 227-237.	1.0	10
465	A Multiscale Image Denoising Algorithm Based on Dilated Residual Convolution Network. Communications in Computer and Information Science, 2019, , 193-203.	0.4	10
466	Multi-band weighted $\ell_1$ minimization for image denoising. Information Sciences, 2020, 537, 162-183.	1.0	8
467	Image stylisation: from predefined to personalised. IET Computer Vision, 2020, 14, 291-303.	1.3	5
468	Structured Dictionary Learning for Image Denoising Under Mixed Gaussian and Impulse Noise. IEEE Transactions on Image Processing, 2020, 29, 6680-6693.	6.0	20
469	Index Networks. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 242-255.	9.7	28
470	Super-resolution recurrent convolutional neural networks for learning with multi-resolution whole slide images. Journal of Biomedical Optics, 2019, 24, 1.	1.4	12
471	Exponential linear unit dilated residual network for digital image denoising. Journal of Electronic Imaging, 2018, 27, 1.	0.5	4

#	ARTICLE	IF	CITATIONS
472	Deep Learning-Based Video Coding. ACM Computing Surveys, 2021, 53, 1-35.	16.1	78
473	An Impulse Noise Removal Model Algorithm based on Logarithmic Image Prior. , 2019, , .		1
474	Deep learning for camera data acquisition, control, and image estimation. Advances in Optics and Photonics, 2020, 12, 787.	12.1	19
475	When Image Denoising Meets High-Level Vision Tasks: A Deep Learning Approach. , 2018, , .		102
476	Hyper RPCA: Joint Maximum Correntropy Criterion and Laplacian Scale Mixture Modeling on-the-Fly for Moving Object Detection. IEEE Transactions on Multimedia, 2023, 25, 112-125.	5.2	2
477	Plug-and-Play Quantum Adaptive Denoiser for Deconvolving Poisson Noisy Images. IEEE Access, 2021, 9, 139771-139791.	2.6	11
478	LR-Net: Low-Rank Spatial-Spectral Network for Hyperspectral Image Denoising. IEEE Transactions on Image Processing, 2021, 30, 8743-8758.	6.0	25
479	Compressed Sensing MRI by Integrating Deep Denoiser and Weighted Schatten P-Norm Minimization. IEEE Signal Processing Letters, 2022, 29, 21-25.	2.1	6
480	A lightweight and effective deep learning model for Gaussian noise removal. , 2021, , .		2
481	OGFNet: Original Resolution Subnetwork and GRU Based Feature Fusion Network for Image Denoising. , 2021, , .		0
482	U-OLANet : Low-Resolution One-Layer Attention Neural Networks for Image Denoising. The Journal of Korean Institute of Information Technology, 2021, 19, 1-9.	0.1	0
483	Mix-order Attention Networks for Image Restoration. , 2021, , .		1
484	VPNET: Variable Projection Networks. International Journal of Neural Systems, 2022, 32, 2150054.	3.2	14
485	Data Security Challenges in Deep Neural Network for Healthcare IoT Systems. Studies in Big Data, 2022, , 19-37.	0.8	4
486	Memory-Augmented Deep Unfolding Network for Compressive Sensing. , 2021, , .		38
487	Adaptive Integration Skip Compensation Neural Networks for Removing Mixed Noise in Image. Lecture Notes in Computer Science, 2018, , 381-391.	1.0	0
488	Performance enhancement of ROTDR using deep convolutional neural networks. , 2018, , .		10
489	Simultaneous sparse coding with Laplacian scale mixture prior for image restoration. Journal of Electronic Imaging, 2018, 27, 1.	0.5	0

#	ARTICLE	IF	CITATIONS
490	Image denoising algorithm based on adversarial learning using joint loss function. , 2018, , .		0
491	Dilated residual encode&quot;decode networks for image denoising. Journal of Electronic Imaging, 2018, 27, 1.	0.5	3
492	IBDNet: Lightweight Network for On-orbit Image Blind Denoising. Lecture Notes in Computer Science, 2019, , 41-52.	1.0	1
493	New Three-Chemical Polynomial Reaction-Diffusion Equations. Lecture Notes in Computer Science, 2019, , 364-370.	1.0	0
494	Dense Activation Network for Image Denoising. Lecture Notes in Computer Science, 2019, , 79-90.	1.0	0
495	Improvement of Image Denoising Algorithms by Preserving the Edges. Lecture Notes in Computer Science, 2019, , 496-506.	1.0	2
496	BDGAN: Image Blind Denoising Using Generative Adversarial Networks. Lecture Notes in Computer Science, 2019, , 241-252.	1.0	7
497	Image Denoising Networks with Residual Blocks and RReLUs. Lecture Notes in Computer Science, 2019, , 60-69.	1.0	1
498	Fluoroscopic Image Denoising with Feature Preserving Residual Noise Learning. , 2019, , .		0
499	Multichannel color image denoising based on multiple dictionaries learning. Journal of Electronic Imaging, 2019, 28, 1.	0.5	0
500	Deep CNN jointing low-high level feature for image super-resolution. , 2019, , .		0
501	Image denoising of real photographs with generative adversarial network for data augmentation. Journal of Electronic Imaging, 2019, 28, 1.	0.5	2
502	A Research and Strategy of Remote Sensing Image Denoising Algorithms. Advances in Intelligent Systems and Computing, 2020, , 704-712.	0.5	0
503	Medical Image Enhancement Using Deep Learning. Intelligent Systems Reference Library, 2020, , 53-76.	1.0	1
504	Gradient Guided Image Deblocking Using Convolutional Neural Networks. , 2019, , .		0
505	End-to-end Interpretable Learning of Non-blind Image Deblurring. Lecture Notes in Computer Science, 2020, , 314-331.	1.0	25
506	Rank-One Network: An Effective Framework for Image Restoration. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 3224-3238.	9.7	3
507	Review Article: Model Meets Deep Learning in Image Inverse Problems. CSIAM Transactions on Applied Mathematics, 2020, 1, 365-386.	0.4	2

#	ARTICLE	IF	CITATIONS
508	Combination of multi-scale and residual learning in deep CNN for image denoising. IET Image Processing, 2020, 14, 2013-2019.	1.4	8
509	Combined Convolutional Neural Network for Highly Compressed Images Denoising. , 2020, , .		0
510	A weighted total variation based image denoising model using mean curvature. Optik, 2020, 217, 164940.	1.4	12
511	Wavelet enabled convolutional autoencoder based deep neural network for hyperspectral image denoising. Multimedia Tools and Applications, 2022, 81, 2529-2555.	2.6	14
512	Robust learning-based x-ray image denoisingâ€™ potential pitfalls, their analysis and solutions. Biomedical Physics and Engineering Express, 2022, 8, 035013.	0.6	1
513	PReLU and edge-aware filter-based image denoiser using convolutional neural network. IET Image Processing, 2020, 14, 3869-3879.	1.4	14
514	Multispectral Image Denoising With Kriging Interpolation Based Wiener Filter. , 2020, , .		0
515	Blind deblurring and denoising via a learning deep CNN denoiser prior and an adaptive $L_0$ -regularised gradient prior for passive millimetre-wave images. IET Image Processing, 2020, 14, 4774-4784.	1.4	3
516	Deep convolutional neural network for mixed random impulse and Gaussian noise reduction in digital images. IET Image Processing, 2020, 14, 3791-3801.	1.4	4
517	Denoising Letter Images from Scanned Invoices Using Stacked Autoencoders. Computers, Materials and Continua, 2022, 71, 1371-1386.	1.5	2
518	Total Deep Variation: A Stable Regularization Method for Inverse Problems. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 9163-9180.	9.7	8
519	CFSNet: Toward a Controllable Feature Space for Image Restoration. , 2019, , .		37
520	Denoising Efficient Block Based Neural Network for Thermal Image Deonising. The Journal of Korean Institute of Information Technology, 2019, 17, 65-76.	0.1	0
521	Inception Model of Convolutional Auto-encoder for Image Denoising. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2020, , 174-186.	0.2	1
522	Dual Adversarial Network: Toward Real-World Noise Removal and Noise Generation. Lecture Notes in Computer Science, 2020, , 41-58.	1.0	90
523	Cooperative Co-Evolutionary Genetic Programming for High Dimensional Problems. Lecture Notes in Computer Science, 2020, , 48-62.	1.0	6
524	Semantic Image Completion and Enhancement Using GANs. Studies in Computational Intelligence, 2020, , 151-170.	0.7	1
525	Image Denoising Using DnCNN: An Exploration Study. Lecture Notes in Electrical Engineering, 2020, , 847-859.	0.3	12

#	ARTICLE	IF	CITATIONS
526	Stochastic Frequency Masking to Improve Super-Resolution and Denoising Networks. Lecture Notes in Computer Science, 2020, , 749-766.	1.0	18
527	Fully Trainable and Interpretable Non-local Sparse Models for Image Restoration. Lecture Notes in Computer Science, 2020, , 238-254.	1.0	15
528	Single Image Super Resolution via Deep Convolutional Dual Upscaling Branches with Different Focus. Smart Innovation, Systems and Technologies, 2020, , 165-177.	0.5	0
529	Stacking Networks Dynamically for Image Restoration Based on the Plug-and-Play Framework. Lecture Notes in Computer Science, 2020, , 446-462.	1.0	8
530	Stacked lossless deconvolutional network for remote sensing image restoration. Journal of Applied Remote Sensing, 2020, 14, 1.	0.6	1
531	Learning Spatially-Variant MAP Models for Non-blind Image Deblurring. , 2021, , .		15
532	Invertible Denoising Network: A Light Solution for Real Noise Removal. , 2021, , .		84
533	Pseudo 3D Auto-Correlation Network for Real Image Denoising. , 2021, , .		13
534	Pre-Trained Image Processing Transformer. , 2021, , .		746
535	Adaptive Consistency Prior based Deep Network for Image Denoising. , 2021, , .		77
536	NBNet: Noise Basis Learning for Image Denoising with Subspace Projection. , 2021, , .		96
537	Adaptive Extraction of Oil Painting Texture Features Based on Reaction Diffusion Equation. Advances in Mathematical Physics, 2021, 2021, 1-11.	0.4	0
538	Deep learning algorithm for Gaussian noise removal from images. Journal of Electronic Imaging, 2020, 29, 1.	0.5	6
539	Statistical Analysis of HRV Parameters for the Detection of Arrhythmia. International Journal of Image and Graphics, 2020, 20, 2050036.	1.2	0
540	Attention Cube Network for Image Restoration. , 2020, , .		9
541	Adaptive trainable non-linear reaction diffusion for Rician noise removal. IET Image Processing, 2020, 14, 3547-3561.	1.4	3
542	Adaptive Checkpoint Adjoint Method for Gradient Estimation in Neural ODE. Proceedings of Machine Learning Research, 2020, 119, 11639-11649.	0.3	0
544	SwinIR: Image Restoration Using Swin Transformer. , 2021, , .		1,069

#	ARTICLE	IF	CITATIONS
545	DDUNet: Dense Dense U-Net with Applications in Image Denoising. , 2021, , .		20
546	Joint Reconstruction and Calibration Using Regularization by Denoising with Application to Computed Tomography. , 2021, , .		2
548	Feasibility-based fixed point networks. Fixed Point Theory and Algorithms for Sciences and Engineering, 2021, 2021, .	0.2	7
549	Image Compressed Sensing Using Non-Local Neural Network. IEEE Transactions on Multimedia, 2023, 25, 816-830.	5.2	20
550	Shared Prior Learning of Energy-Based Models for Image Reconstruction. SIAM Journal on Imaging Sciences, 2021, 14, 1706-1748.	1.3	6
551	Deep Gaussian denoising network based on morphological operators with low-precision arithmetic. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2021, , .	0.2	1
552	Deep dual-domain semi-blind network for compressed image quality enhancement. Knowledge-Based Systems, 2022, 238, 107870.	4.0	4
553	Gaussian Image Denoiser Based on Deep Convolutional Sparse Coding with Attention Mechanism. , 2020, , .		0
554	Boosting the Performance of Plug-and-Play Priors via Denoiser Scaling. , 2020, , .		11
555	Image Reconstruction for MRI using Deep CNN Priors Trained without Groundtruth. , 2020, , .		4
556	Image Denoising using Attention-Residual Convolutional Neural Networks. , 2020, , .		6
557	LINN: Lifting Inspired Invertible Neural Network for Image Denoising. , 2021, , .		3
558	Stochastic Image Denoising by Sampling from the Posterior Distribution. , 2021, , .		14
559	Trainable Diffusion Network Based on Morphological Laplacian. , 2021, , .		1
560	Task-Oriented Convex Bilevel Optimization With Latent Feasibility. IEEE Transactions on Image Processing, 2022, 31, 1190-1203.	6.0	4
561	Deep plug-and-play and deep unfolding methods for image restoration. , 2022, , 481-509.		0
562	WCDGAN: Weakly Connected Dense Generative Adversarial Network for Artifact Removal of Highly Compressed Images. IEEE Access, 2022, 10, 1637-1649.	2.6	2
563	Anisotropic Diffusion Filter Based on Spiking Neural Network Model. Arabian Journal for Science and Engineering, 2022, 47, 9849-9860.	1.7	2



#	ARTICLE	IF	CITATIONS
564	Dense Residual Transformer for Image Denoising. Electronics (Switzerland), 2022, 11, 418.	1.8	13
565	BIGPrior: Toward Decoupling Learned Prior Hallucination and Data Fidelity in Image Restoration. IEEE Transactions on Image Processing, 2022, 31, 1628-1640.	6.0	6
566	Noise reduction in two-photon laser scanned microscopic images by singular value decomposition with copula threshold. Signal Processing, 2022, 195, 108486.	2.1	8
567	Countering Adversarial Attacks on Autonomous Vehicles Using Denoising Techniques: A Review. IEEE Open Journal of Intelligent Transportation Systems, 2022, 3, 61-80.	2.6	16
568	Blind and Compact Denoising Network Based on Noise Order Learning. IEEE Transactions on Image Processing, 2022, 31, 1657-1670.	6.0	10
569	Multi-domain residual encoder-decoder networks for generalized compression artifact reduction. Journal of Visual Communication and Image Representation, 2022, 83, 103425.	1.7	1
570	NSTBNet: Toward a nonsubsampling shearlet transform for broad convolutional neural network image denoising. , 2022, 123, 103407.		6
571	Low-Rankness Guided Group Sparse Representation for Image Restoration. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 7593-7607.	7.2	19
572	Deep Image Denoising With Adaptive Priors. IEEE Transactions on Circuits and Systems for Video Technology, 2022, 32, 5124-5136.	5.6	23
573	On Measuring and Controlling the Spectral Bias of the Deep Image Prior. International Journal of Computer Vision, 2022, 130, 885-908.	10.9	15
574	Plug-and-Play gradient-based denoisers applied to CT image enhancement. Applied Mathematics and Computation, 2022, 422, 126967.	1.4	12
575	Deep Hyperspectral Image Fusion Network With Iterative Spatio-Spectral Regularization. IEEE Transactions on Computational Imaging, 2022, 8, 201-214.	2.6	30
576	Meta PID Attention Network for Flexible and Efficient Real-World Noisy Image Denoising. IEEE Transactions on Image Processing, 2022, 31, 2053-2066.	6.0	18
577	Alternative Design of DeepPDNet in the Context of Image Restoration. IEEE Signal Processing Letters, 2022, 29, 932-936.	2.1	0
578	Derin Öğrenme ile Geliştirilen Görüntülerde Gürültü Azaltma İçerisine Kapsamlı Bir Analiz. International Journal of Advances in Engineering and Pure Sciences, 2022, 34, 65-90.	0.2	1
579	Ultrasound image denoising using generative adversarial networks with residual dense connectivity and weighted joint loss. PeerJ Computer Science, 2022, 8, e873.	2.7	8
580	Affine non-local Bayesian image denoising algorithm. Visual Computer, 2023, 39, 99-118.	2.5	5
581	Deep learning model for 3D profiling of high-aspect-ratio features using high-voltage CD-SEM. Japanese Journal of Applied Physics, 0, , .	0.8	0

#	ARTICLE	IF	CITATIONS
582	CNN-based denoising system for the image quality enhancement. Multimedia Tools and Applications, 0, 1.	2.6	2
583	NIRN: Self-supervised noisy image reconstruction network for real-world image denoising. Applied Intelligence, 2022, 52, 16683-16700.	3.3	5
584	Blind denoising using dense hybrid convolutional network. IET Image Processing, 2022, 16, 2133-2147.	1.4	0
585	An efficient approach for texture smoothing by adaptive joint bilateral filtering. Visual Computer, 2023, 39, 2035-2049.	2.5	5
586	COVID-19 CT image denoising algorithm based on adaptive threshold and optimized weighted median filter. Biomedical Signal Processing and Control, 2022, 75, 103552.	3.5	26
587	A survey of deep learning approaches to image restoration. Neurocomputing, 2022, 487, 46-65.	3.5	36
588	Plug-and-play algorithms for single-pixel imaging. Optics and Lasers in Engineering, 2022, 154, 106970.	2.0	4
589	Patch Group-based Simultaneous Sparse Model for Image Denoising. , 2021, , .		0
590	Dynamic Attentive Graph Learning for Image Restoration. , 2021, , .		43
591	Learning Dual Priors for JPEG Compression Artifacts Removal. , 2021, , .		10
592	Unsupervised Deep Video Denoising. , 2021, , .		22
593	Self-Supervised Image Prior Learning with GMM from a Single Noisy Image. , 2021, , .		1
594	Towards Flexible Blind JPEG Artifacts Removal. , 2021, , .		43
595	Regularizing the Deep Image Prior with a Learned Denoiser for Linear Inverse Problems. , 2021, , .		1
596	C2N: Practical Generative Noise Modeling for Real-World Denoising. , 2021, , .		36
597	Cross-Patch Graph Convolutional Network for Image Denoising. , 2021, , .		9
598	A Multi-Feature Fusion Convolution Neural Network for Image Compression Artifacts Reduction. , 2021, , .		1
599	MRSNet: A Spatial and Channel Attention Integration Network Considering Multi-Resolution Improves Image Denoising. , 2021, , .		1

#	ARTICLE	IF	CITATIONS
600	A Review of Image Denoising With Deep Learning. , 2021, , .		2
601	Data-driven Support Recovery for Sparse Signals with Non-stationary Modulation. , 2021, , .		0
602	External Sparsity Combined with Internal Low-Rankness for Image Denoising. , 2021, , .		0
603	DLRP: Learning Deep Low-Rank Prior for Remotely Sensed Image Denoising. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	1.4	8
604	Noise reduction quality test for two-photon laser scanning microscopic images. , 2022, , .		0
605	NHNet: A non-€local hierarchical network for image denoising. IET Image Processing, 2022, 16, 2446-2456.	1.4	9
606	A novel image Denoising approach using super resolution densely connected convolutional networks. Multimedia Tools and Applications, 2022, 81, 33291-33309.	2.6	4
607	A robust image denoising method with Multi-View Texture-Aware Convolutional Neural Network. IEEE MultiMedia, 2022, , 1-1.	1.5	0
608	Deep Sparse Representation Based Image Restoration With Denoising Prior. IEEE Transactions on Circuits and Systems for Video Technology, 2022, 32, 6530-6542.	5.6	9
609	A Novel Gray Image Denoising Method Using Convolutional Neural Network. IEEE Access, 2022, 10, 49657-49676.	2.6	5
610	Deep Unrolling for Light Field Compressed Acquisition Using Coded Masks. IEEE Access, 2022, 10, 42933-42948.	2.6	3
611	Road Damage Detection From Post-Disaster High-Resolution Remote Sensing Images Based on TLD Framework. IEEE Access, 2022, 10, 43552-43561.	2.6	7
612	Attribute Artifacts Removal for Geometry-Based Point Cloud Compression. IEEE Transactions on Image Processing, 2022, 31, 3399-3413.	6.0	9
613	Quantum Denoising-Based Super-Resolution Algorithm Applied to Dental Tomography Images. , 2022, , .		6
614	DSRD: deep sparse representation with learnable dictionary for remotely sensed image denoising. International Journal of Remote Sensing, 2022, 43, 2699-2711.	1.3	3
615	Optimization Guarantees for ISTA and ADMM Based Unfolded Networks. , 2022, , .		4
616	RatUNet: residual U-Net based on attention mechanism for image denoising. PeerJ Computer Science, 0, 8, e970.	2.7	9
617	A multi-scale adaptive feature enhancement network for image denoising. , 2022, , .		0

#	ARTICLE	IF	CITATIONS
618	Image denoising to enhance character recognition using deep learning. International Journal of Information Technology (Singapore), 0, , 1.	1.8	2
619	Lensfree on-chip microscopy based on single-plane phase retrieval. Optics Express, 2022, 30, 19855.	1.7	10
620	Revisiting Convolutional Sparse Coding for Image Denoising: From a Multi-Scale Perspective. IEEE Signal Processing Letters, 2022, 29, 1202-1206.	2.1	9
621	Dual Mixture Model Based CNN for Image Denoising. IEEE Transactions on Image Processing, 2022, 31, 3618-3629.	6.0	2
622	Flexible and Generalized Real Photograph Denoising Exploiting Dual Meta Attention. IEEE Transactions on Cybernetics, 2023, 53, 6395-6407.	6.2	9
623	Deep Denoising for Scientific Discovery: A Case Study in Electron Microscopy. IEEE Transactions on Computational Imaging, 2022, 8, 585-597.	2.6	13
624	A Novel Image Denoising Algorithm Using Concepts of Quantum Many-Body Theory. SSRN Electronic Journal, 0, , .	0.4	0
625	Bayesian Imaging Using Plug & Play Priors: When Langevin Meets Tweedie. SIAM Journal on Imaging Sciences, 2022, 15, 701-737.	1.3	26
626	A Sparse-Model-Driven Network for Efficient and High-Accuracy InSAR Phase Filtering. Remote Sensing, 2022, 14, 2614.	1.8	1
627	DCT2net: An Interpretable Shallow CNN for Image Denoising. IEEE Transactions on Image Processing, 2022, 31, 4292-4305.	6.0	13
628	Restoring Fluorescence Microscopy Images by Transfer Learning From Tailored Data. IEEE Access, 2022, 10, 61016-61033.	2.6	1
629	(MLE <sup>2</sup> SA <sup>2</sup> U)-Net: Image Super-Resolution via Multi-Level Edge Embedding and Aggregated Attentive Upsampler Network. IEEE Transactions on Emerging Topics in Computational Intelligence, 2023, 7, 523-536.	3.4	3
630	Variational Deep Image Restoration. IEEE Transactions on Image Processing, 2022, 31, 4363-4376.	6.0	15
631	Deep 2nd-order residual block for image denoising. Multimedia Tools and Applications, 0, , .	2.6	0
632	Connections Between Numerical Algorithms for PDEs and Neural Networks. Journal of Mathematical Imaging and Vision, 2023, 65, 185-208.	0.8	6
633	Image super-resolution with an enhanced group convolutional neural network. Neural Networks, 2022, 153, 373-385.	3.3	43
634	Image restoration via exponential scale mixture-based simultaneous sparse prior. IET Image Processing, 2022, 16, 3268-3283.	1.4	5
635	An hybrid denoising algorithm based on directional wavelet packets. Multidimensional Systems and Signal Processing, 2022, 33, 1151-1183.	1.7	4

#	ARTICLE	IF	CITATIONS
636	Solving Inverse Problems by Joint Posterior Maximization with Autoencoding Prior. SIAM Journal on Imaging Sciences, 2022, 15, 822-859.	1.3	11
637	Semantic ghost imaging based on recurrent-neural-network. Optics Express, 2022, 30, 23475.	1.7	11
638	A robust deformed convolutional neural network (CNN) for image denoising. CAAI Transactions on Intelligence Technology, 2023, 8, 331-342.	3.4	73
639	Modified convolutional neural network with pseudo-CNN for removing nonlinear noise in digital images. Displays, 2022, 74, 102258.	2.0	10
640	Single image denoising via multi-scale weighted group sparse coding. Signal Processing, 2022, 200, 108650.	2.1	13
641	WINNet: Wavelet-Inspired Invertible Network for Image Denoising. IEEE Transactions on Image Processing, 2022, 31, 4377-4392.	6.0	29
642	Bayesian Imaging with Data-Driven Priors Encoded by Neural Networks. SIAM Journal on Imaging Sciences, 2022, 15, 892-924.	1.3	12
643	A Novel Image Denoising Algorithm Using Concepts of Quantum Many-Body Theory. Signal Processing, 2022, 201, 108690.	2.1	12
644	A Multi-scale Dilated Residual Convolution Network for Image Denoising. Neural Processing Letters, 0, , .	2.0	2
645	Joint operation and attention block search for lightweight image restoration. Pattern Recognition, 2022, 132, 108909.	5.1	12
646	DL <sup>2</sup> : Dictionary learning regularized with deep learning prior for simultaneous denoising and interpolation. Geophysics, 2023, 88, WA13-WA25.	1.4	4
647	An image denoising method of picking robot vision based on feature pyramid network. Journal of Food Process Engineering, 2022, 45, .	1.5	1
648	Multilevel Noise Contrastive Network for Few-Shot Image Denoising. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-13.	2.4	7
649	Boosting Photon-Efficient Image Reconstruction with A Unified Deep Neural Network. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, , 1-18.	9.7	4
650	Image denoising using convolutional neural network. , 2022, , .		1
651	Multiple Degradation and Reconstruction Network for Single Image Denoising via Knowledge Distillation. , 2022, , .		6
652	A robust non-blind deblurring method using deep denoiser prior. , 2022, , .		10
653	Improving reproducibility and performance of radiomics in low-dose CT using cycle GANs. Journal of Applied Clinical Medical Physics, 2022, 23, .	0.8	4

#	ARTICLE	IF	CITATIONS
654	Total generalized variational-liked network for image denoising. Applied Intelligence, 0, , .	3.3	0
655	A Criminisi-DnCNN Model-Based Image Inpainting Method. Mathematical Problems in Engineering, 2022, 2022, 1-8.	0.6	0
656	Designing rotationally invariant neural networks from PDEs and variational methods. Research in Mathematical Sciences, 2022, 9, .	0.5	2
657	MoG-DS: model-guided deep convolutional network for joint denoising and super-resolution of a single-photon counting image. Optics Express, 2022, 30, 33068.	1.7	0
658	Image denoising using block matching and convolutional neural network. Journal of Electronic Imaging, 2022, 31, .	0.5	0
659	PDNet: Progressive denoising network via stochastic supervision on reaction-diffusionâ€“advection equation. Information Sciences, 2022, 610, 345-358.	4.0	3
660	Ultrasonic Guided Wave Inversion Based on Deep Learning Restoration for Fingerprint Recognition. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2022, 69, 2965-2974.	1.7	3
661	DnSwin: Toward real-world denoising via a continuous Wavelet Sliding Transformer. Knowledge-Based Systems, 2022, 255, 109815.	4.0	2
662	A prior-guided deep network for real image denoising and its applications. Knowledge-Based Systems, 2022, 255, 109776.	4.0	7
663	Embedding Gradient-Based Optimization in Image Registration Networks. Lecture Notes in Computer Science, 2022, , 56-65.	1.0	2
664	Futuristic flask with convolutional neural network for removing Gaussian noise from digital images. AIP Conference Proceedings, 2022, , .	0.3	0
665	The Combination of GRU and Dense Block for Image Denoising Network. Communications in Computer and Information Science, 2022, , 95-102.	0.4	0
666	Deep Unrolled Low-Rank Tensor Completion for High Dynamic Range Imaging. IEEE Transactions on Image Processing, 2022, 31, 5774-5787.	6.0	5
667	Hyperspectral Image Denoising Using Nonconvex Local Low-Rank and Sparse Separation With Spatialâ€“Spectral Total Variation Regularization. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-17.	2.7	6
668	Con-Net: A Consolidated Light-Weight Image Restoration Network. IEEE Transactions on Broadcasting, 2022, 68, 862-875.	2.5	3
669	Masking Based De Trop Noise Exclusion and Image Inpainting Instance Restoration. Communications in Computer and Information Science, 2022, , 31-48.	0.4	0
670	Transitional Learning: Exploring the Transition States of Degradation for Blind Super-Resolution. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, , 1-16.	9.7	1
671	Group Sparsity Mixture Model and Its Application on Image Denoising. IEEE Transactions on Image Processing, 2022, 31, 5677-5690.	6.0	5

#	ARTICLE	IF	CITATIONS
672	On the Convergence of Non-Convex Phase Retrieval With Denoising Priors. IEEE Transactions on Signal Processing, 2022, 70, 4424-4439.	3.2	3
673	An Ameliorated Denoising Scheme Based on Deep Learning for $\hat{\Gamma}$ -OTDR System With 41-km Detection Range. IEEE Sensors Journal, 2022, 22, 19666-19674.	2.4	7
674	Self-Supervised Bulk Motion Artifact Removal in Optical Coherence Tomography Angiography. , 2022, , .		1
675	CVF-SID: Cyclic multi-Variate Function for Self-Supervised Image Denoising by Disentangling Noise from Image. , 2022, , .		28
676	URetinex-Net: Retinex-based Deep Unfolding Network for Low-light Image Enhancement. , 2022, , .		118
677	Self-supervised Deep Image Restoration via Adaptive Stochastic Gradient Langevin Dynamics. , 2022, , .		7
678	Multi-stage image denoising with the wavelet transform. Pattern Recognition, 2023, 134, 109050.	5.1	85
679	visual perception preserved denoising network in Image translation. , 2022, , .		0
680	IMAGE ENHANCEMENT AND DE-NOISING TECHNIQUES OF MAGNETIC RESONANCE IMAGES. ASEAN Engineering Journal, 2022, 12, 137-142.	0.2	0
681	A Majorization-Minimization Approach for Edge-Aware Image Smoothing. , 2022, , .		0
682	Denoising Single Images by Feature Ensemble Revisited. Sensors, 2022, 22, 7080.	2.1	2
683	FastRWDnet: implementation of novel real-time deep video denoising utilizing optimized FastDVDnet. Innovations in Systems and Software Engineering, 0, , .	1.6	0
684	Al-Sn-Al Bonding Strength Investigation Based on Deep Learning Model. Processes, 2022, 10, 1899.	1.3	2
685	Discovery the inverse variational problems from noisy data by physics-constrained machine learning. Applied Intelligence, 2023, 53, 11229-11240.	3.3	0
686	Adversarial Turing Patterns from Cellular Automata. Proceedings of the AAAI Conference on Artificial Intelligence, 2021, 35, 2683-2691.	3.6	1
687	Explainable bilevel optimization: An application to the Helsinki deblur challenge. Inverse Problems and Imaging, 2023, 17, 925-950.	0.6	5
688	JPEG Artifacts Removal via Contrastive Representation Learning. Lecture Notes in Computer Science, 2022, , 615-631.	1.0	4
689	Fast and High Quality Image Denoising via Malleable Convolution. Lecture Notes in Computer Science, 2022, , 429-446.	1.0	5

#	ARTICLE	IF	CITATIONS
690	A Review of Fault Diagnosis Methods for Rotating Machinery Using Infrared Thermography. <i>Micromachines</i> , 2022, 13, 1644.	1.4	3
691	Deep Unrolling of Diffusion Process with Morphological Laplacian and its Implementation with SIMD Instructions. , 2022, , .		1
692	Deep dilated CNN based image denoising. <i>International Journal of Information Technology (Singapore)</i> , 2023, 15, 137-148.	1.8	4
693	Non-Smooth Energy Dissipating Networks. , 2022, , .		0
694	CUR Transformer: A Convolutional Unbiased Regional Transformer for Image Denoising. <i>ACM Transactions on Multimedia Computing, Communications and Applications</i> , 2023, 19, 1-22.	3.0	4
695	Deep Unfolding of Image Denoising by Quantum Interactive Patches. , 2022, , .		4
696	Robust Low-Rank Convolution Network for Image Denoising. , 2022, , .		5
697	D2HNet: Joint Denoising and Deblurring with Hierarchical Network for Robust Night Image Restoration. <i>Lecture Notes in Computer Science</i> , 2022, , 91-110.	1.0	2
698	A Multi-Head Convolutional Neural Network with Multi-Path Attention Improves Image Denoising. <i>Lecture Notes in Computer Science</i> , 2022, , 338-351.	1.0	2
699	Real Image Denoising via Guided Residual Estimation and Noise Correction. <i>IEEE Transactions on Circuits and Systems for Video Technology</i> , 2023, 33, 1994-2000.	5.6	5
700	Iterative deep neural networks based on proximal gradient descent for image restoration. <i>PLoS ONE</i> , 2022, 17, e0276373.	1.1	2
701	Image denoising in the deep learning era. <i>Artificial Intelligence Review</i> , 2023, 56, 5929-5974.	9.7	11
702	Super-resolving Compressed Images via Parallel and Series Integration of Artefacts Removal and Resolution Enhancement. <i>Signal Processing</i> , 2022, , 108861.	2.1	0
703	HIONet: Deep priors based deep unfolded network for phase retrieval. , 2023, 132, 103797.		1
704	Double-Norm Constrained Image Denoising Algorithm Based on Dictionary Learning Sparsity and FCM Structure Clustering. <i>IEEE Access</i> , 2022, 10, 128304-128317.	2.6	0
705	A novel denoising method for CT images based on U-net and multi-attention. <i>Computers in Biology and Medicine</i> , 2023, 152, 106387.	3.9	14
706	Denoising image by matrix factorization in U-shaped convolutional neural network. <i>Journal of Visual Communication and Image Representation</i> , 2023, 90, 103729.	1.7	1
707	An Image Denoising Model Based on Nonlinear Partial Differential Equation Using Deep Learning. <i>Communications in Computer and Information Science</i> , 2022, , 407-418.	0.4	0



#	ARTICLE	IF	CITATIONS
708	CasaPuNet: Channel Affine Self-Attention- Based Progressively Updated Network for Real Image Denoising. IEEE Transactions on Industrial Informatics, 2023, 19, 9145-9156.	7.2	0
709	Image Super-Resolution With Content-Aware Feature Processing. IEEE Transactions on Artificial Intelligence, 2024, 5, 179-191.	3.4	0
710	Image Enhancement for Improved OCR and Deck Segmentation in Shipbuilding Document Images. , 2022, , .		0
711	Denoising for Photon-limited Imaging via a Multi-level Pyramid Network. , 2022, , .		0
712	Effect of image denoising on geometric moments in image applications. Journal of Analysis, 0, , .	0.3	0
713	Volumetric imaging of fast cellular dynamics with deep learning enhanced bioluminescence microscopy. Communications Biology, 2022, 5, .	2.0	7
714	Image Denoising Using Multi Scaling Aided Double Decker Convolutional Neural Network. Optik, 2022, , 170350.	1.4	1
715	DRFENet: An Improved Deep Learning Neural Network via Dilated Skip Convolution for Image Denoising Application. Applied Sciences (Switzerland), 2023, 13, 28.	1.3	0
716	CARNet: Context-Aware Residual Learning for JPEG-LS Compressed Remote Sensing Image Restoration. Remote Sensing, 2022, 14, 6318.	1.8	4
717	Disentangling Noise from Images: A Flow-Based Image Denoising Neural Network. Sensors, 2022, 22, 9844.	2.1	7
718	MACFNet: multi-attention complementary fusion network for image denoising. Applied Intelligence, 0, , .	3.3	0
719	Denoising scanning tunneling microscopy images of graphene with supervised machine learning. Physical Review Materials, 2022, 6, .	0.9	6
720	Efficient automatically evolving convolutional neural network for image denoising. Memetic Computing, 2023, 15, 219-235.	2.7	2
723	MD3: Model-Driven Deep Remotely Sensed Image Denoising. Remote Sensing, 2023, 15, 445.	1.8	1
724	Searching Efficient Model-Guided Deep Network for Image Denoising. IEEE Transactions on Image Processing, 2023, 32, 668-681.	6.0	2
725	FEUNet: a flexible and effective U-shaped network for image denoising. Signal, Image and Video Processing, 2023, 17, 2545-2553.	1.7	1
726	D3CNNs: Dual Denoiser Driven Convolutional Neural Networks for Mixed Noise Removal in Remotely Sensed Images. Remote Sensing, 2023, 15, 443.	1.8	1
727	Deep unfolding multi-scale regularizer network for image denoising. Computational Visual Media, 2023, 9, 335-350.	10.8	5

#	ARTICLE	IF	CITATIONS
728	Bayesian Inversion for Nonlinear Imaging Models Using Deep Generative Priors. IEEE Transactions on Computational Imaging, 2022, 8, 1237-1249.	2.6	3
729	Prior-guided deep residual propagation for non-blind image deconvolution. , 2018, , .		0
730	Combining Attention Module and Pixel Shuffle for License Plate Super-Resolution. , 2022, , .		1
731	Densely Connected Dilated Residual Network for Image Denoising: DDR-Net. Neural Processing Letters, 2023, 55, 5567-5581.	2.0	2
732	Recursive lightweight convolutional neural networks that make noisy images purer and purer. Visual Computer, 2023, 39, 6571-6587.	2.5	1
733	Deep Unfolding of the Half-Quadratic Splitting Algorithm for ISAR Image Super-resolution. , 2021, , .		2
734	Asymmetric Loss Functions for Noise-Tolerant Learning: Theory and Applications. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2023, , 1-16.	9.7	4
735	On Maximum a Posteriori Estimation with Plug & Play Priors and Stochastic Gradient Descent. Journal of Mathematical Imaging and Vision, 2023, 65, 140-163.	0.8	4
736	Cross-Scale KNN Image Transformer for Image Restoration. IEEE Access, 2023, 11, 13013-13027.	2.6	0
737	Perceptual Image Enhancement for Smartphone Real-Time Applications. , 2023, , .		10
738	DGDNet: Deep Gradient Descent Network for Remotely Sensed Image Denoising. IEEE Geoscience and Remote Sensing Letters, 2023, 20, 1-5.	1.4	7
740	A comparative analysis of image restoration techniques. , 2023, , 173-211.		0
741	MLFAN: Multilevel Feature Attention Network With Texture Prior for Image Denoising. IEEE Access, 2023, 11, 34260-34273.	2.6	1
742	Nature-Inspired DBN based Optimization Techniques for Image De-noising. Intelligent Systems With Applications, 2023, 18, 200211.	1.9	0
743	Adaptive Perona&Malik model based on dynamical threshold for image multi&noise removal with details preservation. Computers and Mathematics With Applications, 2023, 137, 28-43.	1.4	0
744	Joint group dictionary-based structural sparse representation for image restoration. , 2023, 137, 104029.		4
745	On-axis digital holographic microscopy: Current trends and algorithms. Optics Communications, 2023, 537, 129458.	1.0	2
746	Sophisticated deep learning with on-chip optical diffractive tensor processing. Photonics Research, 2023, 11, 1125.	3.4	4

#	ARTICLE	IF	CITATIONS
747	Low-rank with sparsity constraints for image denoising. Information Sciences, 2023, 637, 118931.	4.0	6
748	An edge map-guided acceleration strategy for multi-scale weighted nuclear norm minimization-based image denoising. , 2023, 134, 103932.		3
749	Twofold dynamic attention guided deep network and noise-aware mechanism for image denoising. Journal of King Saud University - Computer and Information Sciences, 2023, 35, 87-102.	2.7	0
750	Research on the Application Status of Machine Vision Technology in Furniture Manufacturing Process. Applied Sciences (Switzerland), 2023, 13, 2434.	1.3	9
751	A serial attention module-based deep convolutional neural network for mixed Gaussian impulse removal. IET Image Processing, 0, , .	1.4	3
752	Learning to Joint Remosaic and Denoise in Quad Bayer CFA via Universal Multi-scale Channel Attention Network. Lecture Notes in Computer Science, 2023, , 147-160.	1.0	2
753	A Multi-Branch Training and Parameter-Reconstructed Neural Network for Assessment of Signal-to-Noise Ratio of Optical Remote Sensor on Orbit. Applied Sciences (Switzerland), 2023, 13, 2851.	1.3	0
754	Filter Design for Image Decomposition and Applications to Forensics. , 2023, , 1155-1182.		0
755	Models for Multiplicative Noise Removal. , 2023, , 313-346.		0
756	Inverting Adversarially Robust Networks for Image Synthesis. Lecture Notes in Computer Science, 2023, , 389-407.	1.0	0
757	PILN: A posterior information learning network for blind reconstruction of lung CT images. Computer Methods and Programs in Biomedicine, 2023, 232, 107449.	2.6	0
758	Deep Memory-Augmented Proximal Unrolling Network for Compressive Sensing. International Journal of Computer Vision, 2023, 131, 1477-1496.	10.9	7
759	A New Fuzzy Smoothing Term Model For Stereo Matching. Computer Journal, 2024, 67, 746-761.	1.5	0
760	Equilibrium Image Denoising With Implicit Differentiation. IEEE Transactions on Image Processing, 2023, 32, 1868-1881.	6.0	1
761	Image denoising method based on double-branch hole residual convolutional neural network. , 2022, , .		0
762	SLN-RED: Regularization by Simultaneous Local and Nonlocal Denoising for Image Restoration. IEEE Signal Processing Letters, 2023, 30, 578-582.	2.1	2
763	Dynamic Path-Controllable Deep Unrolling Network for Compressive Sensing. IEEE Transactions on Image Processing, 2023, 32, 2202-2214.	6.0	7
764	Residual dense network with non-residual guidance for blind image denoising. , 2023, 137, 104052.		2

#	ARTICLE	IF	CITATIONS
768	On Trainable Multiplicative Noise Removal Models. Lecture Notes in Computer Science, 2023, , 81-93.	1.0	0
773	Research on Low Contrast Feature Extraction and Registration Effect of Concrete Structure based on SuperGlue Algorithm. , 2023, , .		0
776	SFEMGN: Image Denoising with Shallow Feature Enhancement Network and Multi-Scale ConvGRU. , 2023, , .		0
783	Reform of Talent Cultivation Based on Deep Learning Technology. , 2023, , 802-808.		0
785	School and Enterprise Cooperation Based on Artificial Intelligence Technology. , 2023, , 795-801.		0
791	Image Restoration Using Optoelectronic Coherent Ising Machine. , 2023, , .		0
794	LSDIR: A Large Scale Dataset for Image Restoration. , 2023, , .		13
795	NTIRE 2023 Challenge on Image Denoising: Methods and Results. , 2023, , .		14
800	Image restoration techniques for space-based lightweight optically sparse aperture Earth-observation telescopes in the longwave infrared domain. , 2023, , .		0
802	Towards Low-Cost Learning-based Camera ISP via Unrolled Optimization. , 2023, , .		0
810	OTST: A Two-Phase Framework for Joint Denoising and Remosaicing in RGBW CFA. , 2023, , .		1
811	Masked Image Training for Generalizable Deep Image Denoising. , 2023, , .		12
812	Polarized Color Image Denoising. , 2023, , .		0
813	Optimization-Inspired Cross-Attention Transformer for Compressive Sensing. , 2023, , .		3
814	CiaoSR: Continuous Implicit Attention-in-Attention Network for Arbitrary-Scale Image Super-Resolution. , 2023, , .		3
820	Deep Unfolding Network with Physics-Based Priors for Underwater Image Enhancement. , 2023, , .		0
827	Network Adaptation Method for Ghost Imaging. , 2023, , .		0
830	CARDNet: A Denoiser Based on Contrast-Aware and Residual-Dense Block. Lecture Notes in Electrical Engineering, 2023, , 853-865.	0.3	0

#	ARTICLE	IF	CITATIONS
838	Computed Tomography Image Restoration Using a Quantum-Based Deep Unrolled Denoiser and a Plug-and-Play Framework. , 2023, , .		0
843	Dual-Domain Learning for JPEG Artifacts Removal. Communications in Computer and Information Science, 2024, , 556-568.	0.4	0
844	A Glance On Various Image Denoising Techniques. , 2023, , .		0
845	CADnCNN: Improving DnCNN Denoising with Cross Attention. , 2023, , .		0
850	Complex-Valued Retrievals From Noisy Images Using Diffusion Models. , 2023, , .		1
852	An Image Denoising Method Based on Visual Perception. , 2023, , .		0
855	Denoising of Fundus Images Using Feed-Forward Convolutional Neural Networks. , 2023, , .		1
859	Unsupervised Image Denoising in Real-World Scenarios via Self-Collaboration Parallel Generative Adversarial Branches. , 2023, , .		0
860	Random Sub-Samples Generation for Self-Supervised Real Image Denoising. , 2023, , .		0
868	Neural Implicit k-space with Trainable Periodic Activation Functions for Cardiac MR Imaging. Informatik Aktuell, 2024, , 82-87.	0.4	0