

Ezequiel Lpez-Rubio

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

137 papers	1,008 citations	17 h-index	25 g-index
146 ext. papers	1,220 ext. citations	3.4 avg, IF	5.21 L-index

#	Paper	IF	Citations
137	Foreground Segmentation Improvement by Image Denoising Preprocessing Applied to Noisy Video Sequences. <i>Advances in Intelligent Systems and Computing</i> , 2022 , 388-397	0.4	
136	Hierarchical Color Quantization with a Neural Gas Model Based on Bregman Divergences. <i>Advances in Intelligent Systems and Computing</i> , 2022 , 327-337	0.4	
135	Improved detection of small objects in road network sequences using CNN and super resolution. <i>Expert Systems</i> , 2022 , 39,	2.1	1
134	Enhanced Image Segmentation by a Novel Test Time Augmentation and Super-Resolution. <i>Lecture Notes in Computer Science</i> , 2022 , 153-162	0.9	
133	A Novel Continual Learning Approach for Competitive Neural Networks. <i>Lecture Notes in Computer Science</i> , 2022 , 223-232	0.9	
132	Encoding Generative Adversarial Networks for Defense Against Image Classification Attacks. <i>Lecture Notes in Computer Science</i> , 2022 , 163-172	0.9	
131	Anomalous Trajectory Detection for Automated Traffic Video Surveillance. <i>Lecture Notes in Computer Science</i> , 2022 , 173-182	0.9	0
130	Analysis of Functional Connectome Pipelines for the Diagnosis of Autism Spectrum Disorders. <i>Lecture Notes in Computer Science</i> , 2022 , 213-222	0.9	
129	Feature Density as an Uncertainty Estimator Method in the Binary Classification Mammography Images Task for a Supervised Deep Learning Model. <i>Lecture Notes in Computer Science</i> , 2022 , 375-388	0.9	
128	Road pollution estimation from vehicle tracking in surveillance videos by deep convolutional neural networks. <i>Applied Soft Computing Journal</i> , 2021 , 113, 107950	7.5	3
127	Improving Uncertainty Estimations for Mammogram Classification using Semi-Supervised Learning 2021 ,		6
126	Data science and molecular biology: prediction and mechanistic explanation. <i>Synthese</i> , 2021 , 198, 3131-3158	15.6	7
125	Performance of Deep Learning and Traditional Techniques in Single Image Super-Resolution of Noisy Images. <i>Lecture Notes in Computer Science</i> , 2021 , 623-638	0.9	
124	Rician Noise Estimation for 3D Magnetic Resonance Images Based on Benford's Law. <i>Lecture Notes in Computer Science</i> , 2021 , 340-349	0.9	
123	The Effect of Noise and Brightness on Convolutional Deep Neural Networks. <i>Lecture Notes in Computer Science</i> , 2021 , 639-654	0.9	
122	Improving Uncertainty Estimation With Semi-Supervised Deep Learning for COVID-19 Detection Using Chest X-Ray Images. <i>IEEE Access</i> , 2021 , 9, 85442-85454	3.5	11
121	Classification of Images as Photographs or Paintings by Using Convolutional Neural Networks. <i>Lecture Notes in Computer Science</i> , 2021 , 432-442	0.9	2

120	Histopathological image analysis for breast cancer diagnosis by ensembles of convolutional neural networks and genetic algorithms 2021 ,		1
119	Ensemble ellipse fitting by spatial median consensus. <i>Information Sciences</i> , 2021 , 579, 310-324	7.7	0
118	Anomalous object detection by active search with PTZ cameras. <i>Expert Systems With Applications</i> , 2021 , 181, 115150	7.8	3
117	Skin Lesion Classification by Ensembles of Deep Convolutional Networks and Regularly Spaced Shifting. <i>IEEE Access</i> , 2021 , 9, 112193-112205	3.5	7
116	The Impact of Linear Motion Blur on the Object Recognition Efficiency of Deep Convolutional Neural Networks. <i>Lecture Notes in Computer Science</i> , 2021 , 611-622	0.9	
115	Deep learning-based video surveillance system managed by low cost hardware and panoramic cameras. <i>Integrated Computer-Aided Engineering</i> , 2020 , 27, 373-387	5.2	13
114	Throwing light on black boxes: emergence of visual categories from deep learning. <i>Synthese</i> , 2020 , 198, 10021	0.8	1
113	Multiobjective optimization of deep neural networks with combinations of Lp-norm cost functions for 3D medical image super-resolution. <i>Integrated Computer-Aided Engineering</i> , 2020 , 27, 233-251	5.2	17
112	Aggregation of Convolutional Neural Network Estimations of Homographies by Color Transformations of the Inputs. <i>IEEE Access</i> , 2020 , 8, 79552-79560	3.5	1
111	The effect of downsamplingUpsampling strategy on foreground detection algorithms. <i>Artificial Intelligence Review</i> , 2020 , 53, 4935-4965	9.7	0
110	Content based image retrieval by ensembles of deep learning object classifiers. <i>Integrated Computer-Aided Engineering</i> , 2020 , 27, 317-331	5.2	18
109	Background subtraction by probabilistic modeling of patch features learned by deep autoencoders. <i>Integrated Computer-Aided Engineering</i> , 2020 , 27, 253-265	5.2	9
108	Ellipse fitting by spatial averaging of random ensembles. <i>Pattern Recognition</i> , 2020 , 106, 107406	7.7	6
107	Deep learning-based super-resolution of 3D magnetic resonance images by regularly spaced shifting. <i>Neurocomputing</i> , 2020 , 398, 314-327	5.4	4
106	Foreground detection by ensembles of random polygonal tilings. <i>Expert Systems With Applications</i> , 2020 , 161, 113518	7.8	1
105	Exploratory Data Analysis and Foreground Detection with the Growing Hierarchical Neural Forest. <i>Neural Processing Letters</i> , 2020 , 52, 2537-2563	2.4	
104	Super-Resolution of 3D MRI Corrupted by Heavy Noise With the Median Filter Transform 2020 ,		1
103	The Forbidden Region Self-Organizing Map Neural Network. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2020 , 31, 201-211	10.3	9

102	The Big Data razor. <i>European Journal for Philosophy of Science</i> , 2020 , 10, 1	1.1	3
101	Optimization of Convolutional Neural Network Ensemble Classifiers by Genetic Algorithms. <i>Lecture Notes in Computer Science</i> , 2019 , 163-173	0.9	3
100	Foreground detection by probabilistic modeling of the features discovered by stacked denoising autoencoders in noisy video sequences. <i>Pattern Recognition Letters</i> , 2019 , 125, 481-487	4.7	10
99	Content Based Image Retrieval by Convolutional Neural Networks. <i>Lecture Notes in Computer Science</i> , 2019 , 277-286	0.9	2
98	Deep Learning Networks with p-norm Loss Layers for Spatial Resolution Enhancement of 3D Medical Images. <i>Lecture Notes in Computer Science</i> , 2019 , 287-296	0.9	
97	Background Modeling by Shifted Tilings of Stacked Denoising Autoencoders. <i>Lecture Notes in Computer Science</i> , 2019 , 307-316	0.9	2
96	Deep Learning-Based Security System Powered by Low Cost Hardware and Panoramic Cameras. <i>Lecture Notes in Computer Science</i> , 2019 , 317-326	0.9	
95	Diabetic Wound Segmentation using Convolutional Neural Networks. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2019 , 2019, 1002-1005	0.9	8
94	Piecewise Polynomial Activation Functions for Feedforward Neural Networks. <i>Neural Processing Letters</i> , 2019 , 50, 121-147	2.4	2
93	Panorama construction for PTZ camera surveillance with the neural gas network. <i>Expert Systems</i> , 2018 , 35, e12249	2.1	2
92	Unsupervised learning by cluster quality optimization. <i>Information Sciences</i> , 2018 , 436-437, 31-55	7.7	6
91	Foreground Detection by Competitive Learning for Varying Input Distributions. <i>International Journal of Neural Systems</i> , 2018 , 28, 1750056	6.2	18
90	Blood Cell Classification Using the Hough Transform and Convolutional Neural Networks. <i>Advances in Intelligent Systems and Computing</i> , 2018 , 669-678	0.4	7
89	The effect of noise on foreground detection algorithms. <i>Artificial Intelligence Review</i> , 2018 , 49, 407-438	9.7	6
88	A fast robust geometric fitting method for parabolic curves. <i>Pattern Recognition</i> , 2018 , 84, 301-316	7.7	6
87	Foreground Detection Enhancement Using Pearson Correlation Filtering. <i>Communications in Computer and Information Science</i> , 2018 , 417-428	0.3	
86	Background Modeling for Video Sequences by Stacked Denoising Autoencoders. <i>Lecture Notes in Computer Science</i> , 2018 , 341-350	0.9	4
85	Developing Cooperative Evaluation Methodologies in Higher Education. <i>Advances in Intelligent Systems and Computing</i> , 2018 , 706-711	0.4	

84	Vehicle type detection by ensembles of convolutional neural networks operating on super resolved images. <i>Integrated Computer-Aided Engineering</i> , 2018 , 25, 321-333	5.2	48
83	A New Self-Organizing Neural Gas Model based on Bregman Divergences 2018 ,		2
82	Road Pollution Estimation Using Static Cameras And Neural Networks 2018 ,		1
81	Deep learning-based anomalous object detection system powered by microcontroller for PTZ cameras 2018 ,		1
80	Super-resolution of 3D Magnetic Resonance Images by Random Shifting and Convolutional Neural Networks 2018 ,		1
79	Computational Functionalism for the Deep Learning Era. <i>Minds and Machines</i> , 2018 , 28, 667-688	4.9	7
78	Motion detection with low cost hardware for PTZ cameras. <i>Integrated Computer-Aided Engineering</i> , 2018 , 26, 21-36	5.2	7
77	Foreground object detection for video surveillance by fuzzy logic based estimation of pixel illumination states. <i>Logic Journal of the IGPL</i> , 2018 ,	1	5
76	Dynamic tree topology learning by self-organization. <i>Neural Computing and Applications</i> , 2017 , 28, 911-924	4.8	3
75	Vehicle Type Detection by Convolutional Neural Networks. <i>Lecture Notes in Computer Science</i> , 2017 , 268-278	0.9	5
74	Robust Fitting of Ellipsoids by Separating Interior and Exterior Points During Optimization. <i>Journal of Mathematical Imaging and Vision</i> , 2017 , 58, 189-210	1.6	4
73	Neural controller for PTZ cameras based on nonpanoramic foreground detection 2017 ,		2
72	The Growing Hierarchical Neural Gas Self-Organizing Neural Network. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2017 , 28, 2000-2009	10.3	14
71	Panoramic background modeling for PTZ cameras with competitive learning neural networks 2017 ,		3
70	Pixel Features for Self-organizing Map Based Detection of Foreground Objects in Dynamic Environments. <i>Advances in Intelligent Systems and Computing</i> , 2017 , 247-255	0.4	1
69	Unsupervised Color Quantization with the Growing Neural Forest. <i>Lecture Notes in Computer Science</i> , 2017 , 306-316	0.9	1
68	Motion Detection by Microcontroller for Panning Cameras. <i>Lecture Notes in Computer Science</i> , 2017 , 279-288	6.8	1
67	Vehicle Classification in Traffic Environments Using the Growing Neural Gas. <i>Lecture Notes in Computer Science</i> , 2017 , 225-234	0.9	1

66	Growing Neural Forest-Based Color Quantization Applied to RGB Images. <i>International Journal of Computer Vision and Image Processing</i> , 2017 , 7, 13-25	0.7	
65	A Growing Neural Gas Approach to Classify Vehicles in Traffic Environments. <i>International Journal of Computer Vision and Image Processing</i> , 2017 , 7, 1-12	0.7	1
64	Smart motion detection sensor based on video processing using self-organizing maps. <i>Expert Systems With Applications</i> , 2016 , 64, 476-489	7.8	17
63	Continuous chemical classification in uncontrolled environments with sliding windows. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2016 , 158, 117-129	3.8	11
62	Extended abstract: A color quantization approach based on the Growing Neural Forest 2016 ,		2
61	Selecting the Color Space for Self-Organizing Map Based Foreground Detection in Video. <i>Neural Processing Letters</i> , 2016 , 43, 345-361	2.4	6
60	Superresolution from a Single Noisy Image by the Median Filter Transform. <i>SIAM Journal on Imaging Sciences</i> , 2016 , 9, 82-115	1.9	14
59	Frame Size Reduction for Foreground Detection in Video Sequences. <i>Lecture Notes in Computer Science</i> , 2016 , 3-12	0.9	2
58	Learning Topologies with the Growing Neural Forest. <i>International Journal of Neural Systems</i> , 2016 , 26, 1650019	6.2	17
57	Local color transformation analysis for sudden illumination change detection. <i>Image and Vision Computing</i> , 2015 , 37, 31-47	3.7	9
56	A self-organizing map to improve vehicle detection in flow monitoring systems. <i>Soft Computing</i> , 2015 , 19, 2499-2509	3.5	17
55	Probability density function estimation with the frequency polygon transform. <i>Information Sciences</i> , 2015 , 298, 136-158	7.7	5
54	Robust self-organization with M-estimators. <i>Neurocomputing</i> , 2015 , 151, 408-423	5.4	5
53	Foreground detection for moving cameras with stochastic approximation. <i>Pattern Recognition Letters</i> , 2015 , 68, 161-168	4.7	16
52	Features for stochastic approximation based foreground detection. <i>Computer Vision and Image Understanding</i> , 2015 , 133, 30-50	4.3	23
51	Visualization of Complex Datasets with the Self-Organizing Spanning Tree. <i>Lecture Notes in Computer Science</i> , 2015 , 209-217	0.9	1
50	A Histogram Transform for ProbabilityDensity Function Estimation. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , 2014 , 36, 644-56	13.3	37
49	2014 ,		4

48	An adaptive system for compressed video deblocking. <i>Signal Processing</i> , 2014 , 103, 415-425	4.4	2
47	Online Learning by Stochastic Approximation for Background Modeling 2014 , 8-1-8-23		
46	Bregman divergences for growing hierarchical self-organizing networks. <i>International Journal of Neural Systems</i> , 2014 , 24, 1450016	6.2	14
45	Grid topologies for the self-organizing map. <i>Neural Networks</i> , 2014 , 56, 35-48	9.1	6
44	A Competitive Neural Network for Multiple Object Tracking in Video Sequence Analysis. <i>Neural Processing Letters</i> , 2013 , 37, 47-67	2.4	10
43	Improving the quality of self-organizing maps by self-intersection avoidance. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2013 , 24, 1253-65	10.3	7
42	Assessment of geometric features for individual identification and verification in biometric hand systems. <i>Expert Systems With Applications</i> , 2013 , 40, 3580-3594	7.8	37
41	Adaptive kernel regression and probabilistic self-organizing maps for JPEG image deblocking. <i>Neurocomputing</i> , 2013 , 121, 32-39	5.4	8
40	A Self-organizing Map for Traffic Flow Monitoring. <i>Lecture Notes in Computer Science</i> , 2013 , 458-466	0.9	
39	Hierarchical Self-Organizing Networks for Multispectral Data Visualization. <i>Lecture Notes in Computer Science</i> , 2013 , 449-457	0.9	
38	Feature Selection of Hand Biometrical Traits Based on Computational Intelligence Techniques. <i>Studies in Computational Intelligence</i> , 2012 , 159-180	0.8	
37	Dynamic topology learning with the probabilistic self-organizing graph. <i>Neurocomputing</i> , 2011 , 74, 2633-2648	3.4	8
36	Stochastic approximation learning for mixtures of multivariate elliptical distributions. <i>Neurocomputing</i> , 2011 , 74, 2972-2984	5.4	2
35	Growing hierarchical probabilistic self-organizing graphs. <i>IEEE Transactions on Neural Networks</i> , 2011 , 22, 997-1008		13
34	GA-based feature selection approach in biometric hand systems 2011 ,		3
33	Stochastic approximation for background modelling. <i>Computer Vision and Image Understanding</i> , 2011 , 115, 735-749	4.3	28
32	Kernel regression based feature extraction for 3D MR image denoising. <i>Medical Image Analysis</i> , 2011 , 15, 498-513	15.4	32
31	Foreground detection in video sequences with probabilistic self-organizing maps. <i>International Journal of Neural Systems</i> , 2011 , 21, 225-46	6.2	58

30	Feature Weighting in Competitive Learning for Multiple Object Tracking in Video Sequences. <i>Lecture Notes in Computer Science</i> , 2011 , 17-24	0.9	
29	Reduction of JPEG Compression Artifacts by Kernel Regression and Probabilistic Self-Organizing Maps. <i>Lecture Notes in Computer Science</i> , 2011 , 34-41	0.9	
28	Probabilistic self-organizing maps for continuous data. <i>IEEE Transactions on Neural Networks</i> , 2010 , 21, 1543-54		28
27	Probabilistic self-organizing maps for qualitative data. <i>Neural Networks</i> , 2010 , 23, 1208-25	9.1	12
26	Restoration of images corrupted by Gaussian and uniform impulsive noise. <i>Pattern Recognition</i> , 2010 , 43, 1835-1846	7.7	68
25	Robust location and spread measures for nonparametric probability density function estimation. <i>International Journal of Neural Systems</i> , 2009 , 19, 345-57	6.2	9
24	Dynamic competitive probabilistic principal components analysis. <i>International Journal of Neural Systems</i> , 2009 , 19, 91-103	6.2	16
23	Automatic Model Selection by Cross-Validation for Probabilistic PCA. <i>Neural Processing Letters</i> , 2009 , 30, 113-132	2.4	5
22	Multivariate student-t self-organizing maps. <i>Neural Networks</i> , 2009 , 22, 1432-47	9.1	18
21	Probabilistic PCA self-organizing maps. <i>IEEE Transactions on Neural Networks</i> , 2009 , 20, 1474-89		29
20	Object Tracking in Video Sequences by Unsupervised Learning. <i>Lecture Notes in Computer Science</i> , 2009 , 1070-1077	0.9	6
19	Nonparametric Location Estimation for Probability Density Function Learning. <i>Lecture Notes in Computer Science</i> , 2009 , 106-113	0.9	
18	Probabilistic Self-Organizing Graphs. <i>Lecture Notes in Computer Science</i> , 2009 , 180-187	0.9	1
17	Soft clustering for nonparametric probability density function estimation. <i>Pattern Recognition Letters</i> , 2008 , 29, 2085-2091	4.7	13
16	Robust Nonparametric Probability Density Estimation by Soft Clustering. <i>Lecture Notes in Computer Science</i> , 2008 , 155-164	0.9	
15	Self-organization of Probabilistic PCA Models. <i>Lecture Notes in Computer Science</i> , 2007 , 211-218	0.9	1
14	Automatic Model Selection for Probabilistic PCA. <i>Lecture Notes in Computer Science</i> , 2007 , 127-134	0.9	
13	Image Compression by Vector Quantization with Recurrent Discrete Networks. <i>Lecture Notes in Computer Science</i> , 2006 , 595-605	0.9	4

12	Local Selection of Model Parameters in Probability Density Function Estimation. <i>Lecture Notes in Computer Science</i> , 2006 , 292-301	0.9	
11	Intrinsic Dimensionality Maps with the PCASOM. <i>Lecture Notes in Computer Science</i> , 2005 , 750-757	0.9	
10	Principal components analysis competitive learning. <i>Neural Computation</i> , 2004 , 16, 2459-81	2.9	13
9	A principal components analysis self-organizing map. <i>Neural Networks</i> , 2004 , 17, 261-70	9.1	30
8	A four-stage system for blind colour image segmentation. <i>Integrated Computer-Aided Engineering</i> , 2003 , 10, 127-137	5.2	
7	New learning rules for the ASSOM network. <i>Neural Computing and Applications</i> , 2003 , 12, 109-118	4.8	1
6	Principal Components Analysis Competitive Learning. <i>Lecture Notes in Computer Science</i> , 2003 , 318-325	0.9	2
5	Expansive and Competitive Learning for Vector Quantization. <i>Neural Processing Letters</i> , 2002 , 15, 261-273	2.4	6
4	Self-Organizing Dynamic Graphs. <i>Neural Processing Letters</i> , 2002 , 16, 93-109	2.4	5
3	The Principal Components Analysis Self-Organizing Map. <i>Lecture Notes in Computer Science</i> , 2002 , 865-870	0.9	
2	Invariant pattern identification by self-organising networks. <i>Pattern Recognition Letters</i> , 2001 , 22, 983-990	4.7	7
1	Dynamic Topology Networks for Colour Image Compression. <i>Lecture Notes in Computer Science</i> , 2001 , 168-175	0.9	