Olivier LÃ©zoray

List of Publications by Year
in descending order

122 papers	1,929 citations	361413 20 h-index	302126 39 g-index
126 all docs	126 docs citations	126 times ranked	1519 citing authors

#	Article	IF	Citations
1	Nonlocal Discrete Regularization on Weighted Graphs: A Framework for Image and Manifold Processing. IEEE Transactions on Image Processing, 2008, 17, 1047-1060.	9.8	364
2	Cooperation of color pixel classification schemes and color watershed: a study for microscopic images. IEEE Transactions on Image Processing, 2002, 11, 783-789.	9.8	110
3	Multi-resolution graph-based analysis of histopathological whole slide images: Application to mitotic cell extraction and visualization. Computerized Medical Imaging and Graphics, 2011, 35, 603-615.	5.8	78
4	A Neural Network Based on SPD Manifold Learning for Skeleton-Based Hand Gesture Recognition. , 2019, , .		76
5	Exemplar-based Inpainting: Technical Review and new Heuristics for better Geometric Reconstructions. IEEE Transactions on Image Processing, 2015, 24, 1-1.	9.8	69
6	People re-identification by spectral classification of silhouettes. Signal Processing, 2010, 90, 2362-2374.	3.7	66
7	Graph-based tools for microscopic cellular image segmentation. Pattern Recognition, 2009, 42, 1113-1125.	8.1	62
8	Segmentation and Edge Detection Based on Spiking Neural Network Model. Neural Processing Letters, 2010, 32, 131-146.	3.2	59
9	Nonlocal PDEs-Based Morphology on Weighted Graphs for Image and Data Processing. IEEE Transactions on Image Processing, 2011, 20, 1504-1516.	9.8	51
10	Partial Difference Operators on Weighted Graphs for Image Processing on Surfaces and Point Clouds. IEEE Transactions on Image Processing, 2014, 23, 3896-3909.	9.8	49
11	Graph regularization for color image processing. Computer Vision and Image Understanding, 2007, 107, 38-55.	4.7	47
12	Eikonal Equation Adaptation on Weighted Graphs: Fast Geometric Diffusion Process for Local and Non-local Image and Data Processing. Journal of Mathematical Imaging and Vision, 2013, 46, 238-257.	1.3	45
13	Color image segmentation using morphological clustering and fusion with automatic scale selection. Pattern Recognition Letters, 2009, 30, 397-406.	4.2	44
14	Non-Local Morphological PDEs and p-Laplacian Equation on Graphs With Applications in Image Processing and Machine Learning. IEEE Journal on Selected Topics in Signal Processing, 2012, 6, 764-779.	10.8	36
15	PDE-Based Graph Signal Processing for 3-D Color Point Clouds: Opportunities for cultural heritage. IEEE Signal Processing Magazine, 2015, 32, 103-111.	5.6	33
16	Machine learning to design full-reference image quality assessment algorithm. Signal Processing: Image Communication, 2012, 27, 209-219.	3.2	31
17	Depth-Guided Disocclusion Inpainting of Synthesized RGB-D Images. IEEE Transactions on Image Processing, 2017, 26, 525-538.	9.8	30
18	Novel Approach Using Echo State Networks for Microscopic Cellular Image Segmentation. Cognitive Computation, 2016, 8, 237-245.	5.2	25

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19	A color object recognition scheme: application to cellular sorting. Machine Vision and Applications, 2003, 14, 166-171.	2.7	23
20	Nonlinear Multilayered Representation of Graph-Signals. Journal of Mathematical Imaging and Vision, 2013, 45, 114-137.	1.3	22
21	Nonlocal graph regularization for image colorization. , 2008, , .		21
22	Machine Learning in Image Processing. Eurasip Journal on Advances in Signal Processing, 2008, 2008, .	1.7	20
23	Multi-scale mesh saliency with local adaptive patches for viewpoint selection. Signal Processing: Image Communication, 2015, 38, 151-166.	3.2	20
24	TABU SEARCH MODEL SELECTION FOR SVM. International Journal of Neural Systems, 2008, 18, 19-31.	5.2	19
25	3D Blind Mesh Quality Assessment Index. IS&T International Symposium on Electronic Imaging, 2017, 29, 9-26.	0.4	19
26	Complete lattice learning for multivariate mathematical morphology. Journal of Visual Communication and Image Representation, 2016, 35, 220-235.	2.8	18
27	Partial Difference Equations over Graphs: Morphological Processing of Arbitrary Discrete Data. Lecture Notes in Computer Science, 2008, , 668-680.	1.3	18
28	A neural network architecture for data classification. International Journal of Neural Systems, 2001, 11, 33-42.	5.2	16
29	Superpixel-based depth map inpainting for RGB-D view synthesis. , 2015, , .		16
30	SUPERVISED AUTOMATIC HISTOGRAM CLUSTERING AND WATERSHED SEGMENTATION. APPLICATION TO MICROSCOPIC MEDICAL COLOR IMAGES. Image Analysis and Stereology, 2003, 22, 113.	0.9	15
31	Edge detection based on Hodgkinâ€“Huxley neuron model simulation. Cognitive Processing, 2017, 18, 315-323.	1.4	14
32	Mathematical Morphology in Any Color Space. , 2007, , .		13
33	A fast spatial patch blending algorithm for artefact reduction in pattern-based image inpainting. , 2013, , .		13
34	A smarter exemplar-based inpainting algorithm using local and global heuristics for more geometric coherence. , 2014, , .		13
35	People silhouette extraction from people detection bounding boxes in images. Pattern Recognition Letters, 2017, 93, 182-191.	4.2	13
36	Image clustering with spiking neuron network. , 2008, , .		12

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37	Image Processing with Spiking Neuron Networks. Studies in Computational Intelligence, 2013, , 525-544.	0.9	12
38	Wavelet Scattering Transform and CNN for Closed Set Speaker Identification. , 2020, , .		12
39	Eikonal-based vertices growing and iterative seeding for efficient graph-based segmentation. , 2014, , .		11
40	Multi-scale saliency of 3D colored meshes. , 2015, , .		11
41	Fast Pixel Classification by SVM Using Vector Quantization, Tabu Search and Hybrid Color Space. Lecture Notes in Computer Science, 2005, , 685-692.	1.3	10
42	Partial differences as tools for filtering data on graphs. Pattern Recognition Letters, 2010, 31, 2201-2213.	4.2	10
43	Efficient Algorithms for Image and High Dimensional Data Processing Using Eikonal Equation on Graphs. Lecture Notes in Computer Science, 2010, , 647-658.	1.3	10
44	PDEs level sets on weighted graphs. , 2011, , .		10
45	Nonlocal PdES on graphs for active contours models with applications to image segmentation and data clustering. , 2012, , .		10
46	Bayesian marker extraction for color watershed in segmenting microscopic images. , 0, , .		9
47	A graph approach to color mathematical morphology. , 0, , .		9
48	Graph-based multi-resolution segmentation of histological whole slide images. , 2010, , .		9
49	Nonlocal and multivariate mathematical morphology. , 2012, , .		9
50	Depth-aware patch-based image disocclusion for virtual view synthesis. , 2015, , .		9
51	Full-reference saliency-based 3D mesh quality assessment index. , 2016, , .		9
52	Comparing Combination Rules of Pairwise Neural Networks Classifiers. Neural Processing Letters, 2008, 27, 43-56.	3.2	8
53	Morphological hierarchical segmentation and color spaces. International Journal of Imaging Systems and Technology, 2010, 20, 167-178.	4.1	8
54	Discrete infinity harmonic functions: Towards a unified interpolation framework on graphs. , 2011, , .		8

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55	Adaptation of Eikonal Equation over Weighted Graph. Lecture Notes in Computer Science, 2009, , 187-199.	1.3	8
56	Lifting scheme on graphs with application to image representation. , 2013, , .		7
57	Nonlocal Multiscale Hierarchical Decomposition on Graphs. Lecture Notes in Computer Science, 2010, , 638-650.	1.3	7
58	New data model for graph-cut segmentation: Application to automatic melanoma delineation. , 2014, , .		6
59	Hybrid Network For End-To-End Text-Independent Speaker Identification. , 2021, , .		6
60	Graph of neural networks for pattern recognition. , 0, , .		5
61	Neural network induction graph for pattern recognition. Neurocomputing, 2004, 57, 257-274.	5.9	5
62	Graph Based Semi and Unsupervised Classification and Segmentation of Microscopic Images. , 2007, , .		5
63	Special issue on whole slide microscopic image processing. Computerized Medical Imaging and Graphics, 2011, 35, 493-495.	5.8	5
64	Graph-based skin lesion segmentation of multispectral dermoscopic images. , 2014, , .		5
65	Geometric PDEs on Weighted Graphs for Semi-supervised Classification. , 2014, , .		5
66	Skeleton-Based Hand Gesture Recognition by Learning SPD Matrices with Neural Networks. , 2019, , .		5
67	Parameterless Discrete Regularization on Graphs for Color Image Filtering. Lecture Notes in Computer Science, 2007, , 46-57.	1.3	5
68	Mitosis Extraction in Breast-Cancer Histopathological Whole Slide Images. Lecture Notes in Computer Science, 2010, , 539-548.	1.3	4
69	Evidential Segmentation of Microscopic Color Images with Pixel Classification Posterior Probabilities. Journal of Multimedia, 2007, 2, .	0.3	4
70	AUTOMATIC SEGMENTATION AND CLASSIFICATION OF CELLS FROM BRONCHO ALVEOLAR LAVAGE. Image Analysis and Stereology, 2007, 26, 111.	0.9	4
71	Graph based smoothing and segmentation of color images. , 2003, , .		3
72	Nonlocal discrete p-Laplacian driven image and manifold processing. Comptes Rendus - Mecanique, 2008, 336, 428-433.	2.1	3

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73	Image Segmentation with Spiking Neuron Network. AIP Conference Proceedings, 2008, , .	0.4	3
74	PdEs-based morphology on graphs for cytological slides segmentation and clustering. , 2012, , .		3
75	Manifold-based mathematical morphology for graph signal editing of colored images and meshes. , 2016, , .		3
76	3D colored mesh graph signals multi-layer morphological enhancement. , 2017, , .		3
77	Global visual saliency: Geometric and colorimetrie saliency fusion and its applications for 3D colored meshes. , 2017, , .		3
78	Learning Recurrent High-order Statistics for Skeleton-based Hand Gesture Recognition. , 2021, , .		3
79	Cell Microscopic Segmentation with Spiking Neuron Networks. Lecture Notes in Computer Science, 2010, , 117-126.	1.3	3
80	Spatial Patch Blending for Artefact Reduction in Pattern-Based Inpainting Techniques. Lecture Notes in Computer Science, 2013, , 523-530.	1.3	3
81	Special Section Guest Editorial: Superpixels for Image Processing and Computer Vision. Journal of Electronic Imaging, 2017, 26, 1.	0.9	3
82	A color image quality assessment using a reduced-reference image machine learning expert. , 2008, , .		2
83	Kernel-Based Implicit Regularization of Structured Objects. , 2010, , .		2
84	Morphological PDEs on graphs for filtering and inpainting of point clouds. , 2013, , .		2
85	Nonlocal segmentation of point clouds with graphs. , 2013, , .		2
86	A genetically optimized graph-based people extraction method for embedded transportation systems real conditions. , 2014, , .		2
87	Graph signal decomposition for multi-scale detail manipulation. , 2014, , .		2
88	Mathematical morphology based on stochastic permutation orderings. Mathematical Morphology - Theory and Applications, 2021, 5, 43-69.	0.7	2
89	Patch-Based Mathematical Morphology for Image Processing, Segmentation and Classification. Lecture Notes in Computer Science, 2015, , 46-57.	1.3	2
90	Hierarchical morphological graph signal multiâ€layer decomposition for editing applications. IET Image Processing, 2020, 14, 1549-1560.	2.5	2

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91	Instance segmentation in fisheye images. , 2020, , .		2
92	A supervised segmentation scheme for cancerology color images. , 0, , .		1
93	Partial difference equations on graphs for Mathematical Morphology operators over images and manifolds. , 2008, , .		1
94	Nonlocal morphological levelings by partial difference equations over weighted graphs. , 2008, , .		1
95	Learning graph neighborhood topological order for image and manifold morphological processing. , 2008, , .		1
96	Image quality assessment with manifold and machine learning. , 2009, , .		1
97	Exemplar-based video completion with geometry-guided space-time patch blending. , 2015, , .		1
98	Mesh saliency with adaptive local patches. Proceedings of SPIE, 2015, , .	0.8	1
99	High dynamic range image processing using manifold-based ordering. , 2016, , .		1
100	p-Laplacian Regularization of Signals on Directed Graphs. Lecture Notes in Computer Science, 2018, , 650-661.	1.3	1
101	A Genetically Based Combination of Visual Saliency and Roughness for FR 3D Mesh Quality Assessment: A Statistical Study. Computer Journal, 2022, 65, 606-620.	2.4	1
102	The Hodgkinâ€“Huxley neuron model for motion detection in image sequences. Neural Computing and Applications, 2022, 34, 1123-1133.	5.6	1
103	Top-Down Segmentation of Histological Images Using a Digital Deformable Model. Lecture Notes in Computer Science, 2009, , 327-336.	1.3	1
104	Color VQ-Based Image Compression by Manifold Learning. Lecture Notes in Computer Science, 2010, , 79-85.	1.3	1
105	Local Patterns and Supergraph for Chemical Graph Classification with Convolutional Networks. Lecture Notes in Computer Science, 2018, , 97-106.	1.3	1
106	Hierarchical Approach forÂtheÂClassification ofÂMulti-class Skin Lesions Based onÂDeep Convolutional Neural Networks. Lecture Notes in Computer Science, 2022, , 139-149.	1.3	1
107	Impulse noise removal by spectral clustering and regularization on graphs. , 2008, , .		0
108	Graph-based morphological processing of multivariate microscopy images and data bases. , 2010, , .		0

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109	A scale-space based hierarchical representation of discrete data. , 2011, , .		0
110	Multivalued label diffusion for semi-supervised segmentation. , 2015, , .		0
111	Editorial of the special issue on Advances in Low-Level Image representations for processing and analysis. Signal, Image and Video Processing, 2016, 10, 421-422.	2.7	0
112	Stochastic spectral-spatial permutation ordering combination for nonlocal morphological processing. , 2017, , .		0
113	Patch-Based Potentials for Interactive Contour Extraction. Lecture Notes in Computer Science, 2018, , 587-597.	1.3	0
114	Graph signal active contours. , 2021, , .		0
115	Hierarchical Representation of Discrete Data on Graphs. Lecture Notes in Computer Science, 2011, , 186-193.	1.3	0
116	Analysis of Whole Slide Images of Equine Tendinopathy. Lecture Notes in Computer Science, 2012, , 440-447.	1.3	0
117	Tensor-Directed Spatial Patch Blending for Pattern-Based Inpainting Methods. Lecture Notes in Computer Science, 2015, , 149-160.	1.3	0
118	Visual Saliency and Perceptual Quality Assessment of 3D Meshes. Advances in Multimedia and Interactive Technologies Book Series, 2018, , 38-115.	0.2	0
119	Graph-based people segmentation using a genetically optimized combination of classifiers. Journal of Electronic Imaging, 2018, 27, 1.	0.9	0
120	Biomedical Microscopic Image Processing by Graphs. Advances in Bioinformatics and Biomedical Engineering Book Series, 0, , 197-213.	0.4	0
121	Skin Lesion Classification Using Convolutional Neural Networks Based on Multi-Features Extraction. Lecture Notes in Computer Science, 2021, , 466-475.	1.3	0
122	Stochastic permutation ordering watershed. , 2021, , .		0