Thierry GÃ©raud

List of Publications by Year
in descending order

		516215		433756
72 papers	1,275 citations	16 h-index	31 g-index	

74 all docs	74 docs citations	74 times ranked	799 citing authors

#	Article	IF	Citations
1	A Comparative Review of Component Tree Computation Algorithms. IEEE Transactions on Image Processing, 2014, 23, 3885-3895.	6.0	158
2	A global benchmark of algorithms for segmenting the left atrium from late gadolinium-enhanced cardiac magnetic resonance imaging. Medical Image Analysis, 2021, 67, 101832.	7.0	150
3	A Quasi-linear Algorithm to Compute the Tree of Shapes of nD Images. Lecture Notes in Computer Science, 2013, , 98-110.	1.0	63
4	Connected Filtering on Tree-Based Shape-Spaces. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2016, 38, 1126-1140.	9.7	55
5	MToS: A Tree of Shapes for Multivariate Images. IEEE Transactions on Image Processing, 2015, 24, 5330-5342.	6.0	54
6	Representation and fusion of heterogeneous fuzzy information in the 3D space for model-based structural recognition—Application to 3D brain imaging. Artificial Intelligence, 2003, 148, 141-175.	3.9	52
7	Efficient multiscale Sauvola's binarization. International Journal on Document Analysis and Recognition, 2014, 17, 105-123.	2.7	48
8	Hierarchical Segmentation Using Tree-Based Shape Spaces. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2017, 39, 457-469.	9.7	44
9	Tree-Based Morse Regions: A Topological Approach to Local Feature Detection. IEEE Transactions on Image Processing, 2014, 23, 5612-5625.	6.0	41
10	Fusion of spatial relationships for guiding recognition, example of brain structure recognition in 3D MRI. Pattern Recognition Letters, 2005, 26, 449-457.	2.6	35
11	A Tutorial on Well-Composedness. Journal of Mathematical Imaging and Vision, 2018, 60, 443-478.	0.8	28
12	The SCRIBO Module of the Olena Platform: A Free Software Framework for Document Image Analysis. , 2011, , .		26
13	Context-based energy estimator: Application to object segmentation on the tree of shapes. , 2012, , .		26
14	From neonatal to adult brain MR image segmentation in a few seconds using 3D-like fully convolutional network and transfer learning. , 2017, , .		24
15	Fast Road Network Extraction in Satellite Images Using Mathematical Morphology and Markov Random Fields. Eurasip Journal on Advances in Signal Processing, 2004, 2004, 1.	1.0	21
16	A first parallel algorithm to compute the morphological tree of shapes of nD images. , 2014, , .		21
17	Hierarchical image simplification and segmentation based on Mumford–Shah-salient level line selection. Pattern Recognition Letters, 2016, 83, 278-286.	2.6	21
18	Discrete Set-Valued Continuity and Interpolation. Lecture Notes in Computer Science, 2013, , 37-48.	1.0	19

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19	Local Intensity Order Transformation for Robust Curvilinear Object Segmentation. IEEE Transactions on Image Processing, 2022, 31, 2557-2569.	6.0	19
20	Real-Time Document Detection in Smartphone Videos. , 2018, , .		18
21	A morphological method for music score staff removal. , 2014, , .		17
22	How to Make nD Functions Digitally Well-Composed in a Self-dual Way. Lecture Notes in Computer Science, 2015, , 561-572.	1.0	17
23	Two Applications of Shape-Based Morphology: Blood Vessels Segmentation and a Generalization of Constrained Connectivity. Lecture Notes in Computer Science, 2013, , 390-401.	1.0	17
24	Why and howto design a generic and efficient image processing framework: The case of the Milena library. , 2010, , .		16
25	Salient level lines selection using the Mumford-Shah functional. , 2013, , .		15
26	Efficient Computation of Attributes and Saliency Maps on Tree-Based Image Representations. Lecture Notes in Computer Science, 2015, , 693-704.	1.0	15
27	A Comparison of Many Max-tree Computation Algorithms. Lecture Notes in Computer Science, 2013, , 73-85.	1.0	15
28	The Tree of Shapes Turned into a Max-Tree: A Simple and Efficient Linear Algorithm. , 2018, , .		14
29	Parallel Computation of Component Trees on Distributed Memory Machines. IEEE Transactions on Parallel and Distributed Systems, 2018, 29, 2582-2598.	4.0	13
30	Milena: Write Generic Morphological Algorithms Once, Run on Many Kinds of Images. Lecture Notes in Computer Science, 2009, , 295-306.	1.0	13
31	How to make nD images well-composed without interpolation. , 2015, , .		11
32	Saliency-Based Detection of Identy Documents Captured by Smartphones. , 2018, , .		11
33	Braids of partitions for the hierarchical representation and segmentation of multimodal images. Pattern Recognition, 2019, 95, 162-172.	5.1	11
34	Planting, Growing, and Pruning Trees: Connected Filters Applied to Document Image Analysis. , 2014, , .		10
35	ICDAR 2021 Competition on Historical Map Segmentation. Lecture Notes in Computer Science, 2021, , 693-707.	1.0	10
36	Writing Reusable Digital Topology Algorithms in a Generic Image Processing Framework. Lecture Notes in Computer Science, 2012, , 140-153.	1.0	9

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37	Ruminations on Tarjanâ€™s Union-Find Algorithm and Connected Operators. , 2005, , 105-116.		8
38	A Morphological Tree of Shapes for Color Images. , 2014, , .		8
39	White Matter Hyperintensities Segmentation in a Few Seconds Using Fully Convolutional Network and Transfer Learning. Lecture Notes in Computer Science, 2018, , 501-514.	1.0	8
40	Left Atrial Segmentation in a Few Seconds Using Fully Convolutional Network and Transfer Learning. Lecture Notes in Computer Science, 2019, , 339-347.	1.0	8
41	Document Detection in Videos Captured by Smartphones using a Saliency-Based Method. , 2019, , .		7
42	Self-duality and Digital Topology: Links Between the Morphological Tree of Shapes and Well-Composed Gray-Level Images. Lecture Notes in Computer Science, 2015, , 573-584.	1.0	7
43	On Making nD Images Well-Composed by a Self-dual Local Interpolation. Lecture Notes in Computer Science, 2014, , 320-331.	1.0	7
44	Getting a morphological tree of shapes for multivariate images: Paths, traps, and pitfalls. , 2014, , .		6
45	Morphology-based hierarchical representation with application to text segmentation in natural images. , 2016, , .		6
46	The challenge of cerebral magnetic resonance imaging in neonates: A new method using mathematical morphology for the segmentation of structures including diffuse excessive high signal intensities.. Medical Image Analysis, 2018, 48, 75-94.	7.0	6
47	Speckle spot detection in ultrasound images: Application to speckle reduction and speckle tracking. , 2014, , .		5
48	Morphological object picking based on the color tree of shapes. , 2015, , .		5
49	Well-Composedness in Alexandrov Spaces Implies Digital Well-Composedness in $$\mathbb {Z}^n$$. Lecture Notes in Computer Science, 2017, , 225-237.	1.0	5
50	How to Make n-D Plain Maps Defined on Discrete Surfaces Alexandrov-Well-Composed in a Self-Dual Way. Journal of Mathematical Imaging and Vision, 2019, 61, 849-873.	0.8	4
51	Region-based classification of remote sensing images with the morphological tree of shapes. , 2016, , .		3
52	A challenging issue: Detection of white matter hyperintensities in neonatal brain MRI. , 2016, 2016, 93-96.		3
53	Connected filters on generalized shape-Spaces. Pattern Recognition Letters, 2019, 128, 348-354.	2.6	3
54	Extraction of Ancient Map Contents Using Trees of Connected Components. Lecture Notes in Computer Science, 2018, , 115-130.	1.0	3

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55	Introducing the Dahu Pseudo-Distance. Lecture Notes in Computer Science, 2017, , 55-67.	1.0	3
56	An Image Processing Library in Modern C++: Getting Simplicity and Efficiency with Generic Programming. Lecture Notes in Computer Science, 2019, , 121-137.	1.0	3
57	Some Equivalence Relation between Persistent Homology and Morphological Dynamics. Journal of Mathematical Imaging and Vision, 2022, 64, 807-824.	0.8	3
58	Meaningful disjoint level lines selection. , 2014, , .		2
59	Equivalence between Digital Well-Composedness and Well-Composedness in the Sense of Alexandrov on n-D Cubical Grids. Journal of Mathematical Imaging and Vision, 2020, 62, 1285-1333.	0.8	2
60	Segmentation of Curvilinear Objects Using a~Watershed-Based Curve Adjacency Graph. Lecture Notes in Computer Science, 2003, , 279-286.	1.0	2
61	Practical Genericity: Writing Image Processing Algorithms Both Reusable and Efficient. Lecture Notes in Computer Science, 2014, , 70-79.	1.0	2
62	A 4D Counter-Example Showing that DWCness Does Not Imply CWCness in nD. Lecture Notes in Computer Science, 2020, , 73-87.	1.0	2
63	Extraction of Ancient Map Contents Using Trees of Connected Components. , 2017, , .		1
64	Intervertebral Disc Segmentation Using Mathematical Morphology—A CNN-Free Approach. Lecture Notes in Computer Science, 2019, , 105-118.	1.0	1
65	A minimum barrier distance for multivariate images with applications. Computer Vision and Image Understanding, 2020, 197-198, 102993.	3.0	1
66	A New Matching Algorithm Between Trees of Shapes and Its Application to Brain Tumor Segmentation. Lecture Notes in Computer Science, 2021, , 67-78.	1.0	1
67	Estimating the Noise Level Function with the Tree of Shapes and Non-parametric Statistics. Lecture Notes in Computer Science, 2019, , 377-388.	1.0	1
68	Max-tree Computation on GPUs. IEEE Transactions on Parallel and Distributed Systems, 2022, , 1-1.	4.0	1
69	Introducing Multivariate Connected Openings and Closings. Lecture Notes in Computer Science, 2019, , 215-227.	1.0	0
70	Topological Properties of the First Non-Local Digitally Well-Composed Interpolation on n-D Cubical Grids. Journal of Mathematical Imaging and Vision, 2020, 62, 1256-1284.	0.8	0
71	Morphological Hierarchical Image Decomposition Based on Laplacian 0-Crossings. Lecture Notes in Computer Science, 2017, , 159-171.	1.0	0
72	Continuous Well-Composedness Implies Digital Well-Composedness in n-D. Journal of Mathematical Imaging and Vision, 0, , .	0.8	0