

Pierrick Coupe

List of Publications by Year in descending order

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Version: 2024-02-01

122
papers

9,326
citations

66343

42
h-index

43889

91
g-index

134
all docs

134
docs citations

134
times ranked

9686
citing authors

#	ARTICLE	IF	CITATIONS
1	An Optimized Blockwise Nonlocal Means Denoising Filter for 3-D Magnetic Resonance Images. IEEE Transactions on Medical Imaging, 2008, 27, 425-441.	8.9	973
2	Adaptive non-local means denoising of MR images with spatially varying noise levels. Journal of Magnetic Resonance Imaging, 2010, 31, 192-203.	3.4	823
3	Patch-based segmentation using expert priors: Application to hippocampus and ventricle segmentation. NeuroImage, 2011, 54, 940-954.	4.2	692
4	BEaST: Brain extraction based on nonlocal segmentation technique. NeuroImage, 2012, 59, 2362-2373.	4.2	507
5	Nonlocal means-based speckle filtering for ultrasound images. IEEE Transactions on Image Processing, 2009, 18, 2221-2229.	9.8	502
6	volBrain: An Online MRI Brain Volumetry System. Frontiers in Neuroinformatics, 2016, 10, 30.	2.5	379
7	Diffusion Weighted Image Denoising Using Overcomplete Local PCA. PLoS ONE, 2013, 8, e73021.	2.5	299
8	Standardized evaluation of algorithms for computer-aided diagnosis of dementia based on structural MRI: The CADDementia challenge. NeuroImage, 2015, 111, 562-579.	4.2	266
9	New methods for MRI denoising based on sparseness and self-similarity. Medical Image Analysis, 2012, 16, 18-27.	11.6	224
10	Prediction of Alzheimer's disease in subjects with mild cognitive impairment from the ADNI cohort using patterns of cortical thinning. NeuroImage, 2013, 65, 511-521.	4.2	224
11	Non-local MRI upsampling. Medical Image Analysis, 2010, 14, 784-792.	11.6	218
12	Towards a unified analysis of brain maturation and aging across the entire lifespan: A MRI analysis. Human Brain Mapping, 2017, 38, 5501-5518.	3.6	209
13	Robust Rician noise estimation for MR images. Medical Image Analysis, 2010, 14, 483-493.	11.6	200
14	Segmentation of MR images via discriminative dictionary learning and sparse coding: Application to hippocampus labeling. NeuroImage, 2013, 76, 11-23.	4.2	196
15	Rician Noise Removal by Non-Local Means Filtering for Low Signal-to-Noise Ratio MRI: Applications to DT-MRI. Lecture Notes in Computer Science, 2008, 11, 171-179.	1.3	157
16	A new method for structural volume analysis of longitudinal brain MRI data and its application in studying the growth trajectories of anatomical brain structures in childhood. NeuroImage, 2013, 82, 393-402.	4.2	145
17	Bayesian Non-local Means Filter, Image Redundancy and Adaptive Dictionaries for Noise Removal. , 2007, , 520-532.		144
18	MRI noise estimation and denoising using non-local PCA. Medical Image Analysis, 2015, 22, 35-47.	11.6	138

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19	CERES: A new cerebellum lobule segmentation method. <i>NeuroImage</i> , 2017, 147, 916-924.	4.2	133
20	Simultaneous segmentation and grading of anatomical structures for patient's classification: Application to Alzheimer's disease. <i>NeuroImage</i> , 2012, 59, 3736-3747.	4.2	129
21	Lifespan Changes of the Human Brain In Alzheimer's Disease. <i>Scientific Reports</i> , 2019, 9, 3998.	3.3	113
22	Scoring by nonlocal image patch estimator for early detection of Alzheimer's disease. <i>NeuroImage: Clinical</i> , 2012, 1, 141-152.	2.7	104
23	Structural imaging biomarkers of Alzheimer's disease: predicting disease progression. <i>Neurobiology of Aging</i> , 2015, 36, S23-S31.	3.1	101
24	Volumetric analysis of medial temporal lobe structures in brain development from childhood to adolescence. <i>NeuroImage</i> , 2013, 74, 276-287.	4.2	91
25	Adaptive multiresolution non-local means filter for three-dimensional magnetic resonance image denoising. <i>IET Image Processing</i> , 2012, 6, 558.	2.5	84
26	Collaborative patch-based super-resolution for diffusion-weighted images. <i>NeuroImage</i> , 2013, 83, 245-261.	4.2	83
27	Comparing fully automated state-of-the-art cerebellum parcellation from magnetic resonance images. <i>NeuroImage</i> , 2018, 183, 150-172.	4.2	80
28	MRI Superresolution Using Self-Similarity and Image Priors. <i>International Journal of Biomedical Imaging</i> , 2010, 2010, 1-11.	3.9	79
29	AssemblyNet: A large ensemble of CNNs for 3D whole brain MRI segmentation. <i>NeuroImage</i> , 2020, 219, 117026.	4.2	78
30	An Optimized PatchMatch for multi-scale and multi-feature label fusion. <i>NeuroImage</i> , 2016, 124, 770-782.	4.2	68
31	3D Wavelet Subbands Mixing for Image Denoising. <i>International Journal of Biomedical Imaging</i> , 2008, 2008, 1-11.	3.9	65
32	Early Fiber Number Ratio Is a Surrogate of Corticospinal Tract Integrity and Predicts Motor Recovery After Stroke. <i>Stroke</i> , 2016, 47, 1053-1059.	2.0	63
33	Bayesian non local means-based speckle filtering. , 2008, , .		62
34	Non Local Spatial and Angular Matching: Enabling higher spatial resolution diffusion MRI datasets through adaptive denoising. <i>Medical Image Analysis</i> , 2016, 32, 115-130.	11.6	61
35	A CANDLE for a deeper in vivo insight. <i>Medical Image Analysis</i> , 2012, 16, 849-864.	11.6	58
36	Automated segmentation of basal ganglia and deep brain structures in MRI of Parkinson's disease. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2013, 8, 99-110.	2.8	57

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37	Rotation-invariant multi-contrast non-local means for MS lesion segmentation. <i>NeuroImage: Clinical</i> , 2015, 8, 376-389.	2.7	56
38	HIPS: A new hippocampus subfield segmentation method. <i>NeuroImage</i> , 2017, 163, 286-295.	4.2	56
39	Real time ultrasound image denoising. <i>Journal of Real-Time Image Processing</i> , 2011, 6, 15-22.	3.5	55
40	Non-Local Means Variants for Denoising of Diffusion-Weighted and Diffusion Tensor MRI. <i>Lecture Notes in Computer Science</i> , 2007, 10, 344-351.	1.3	52
41	Detection of Alzheimer's disease signature in MR images seven years before conversion to dementia: Toward an early individual prognosis. <i>Human Brain Mapping</i> , 2015, 36, 4758-4770.	3.6	52
42	Posterior lobules of the cerebellum and information processing speed at various stages of multiple sclerosis. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , 2017, 88, 146-151.	1.9	52
43	Hippocampal microstructural damage correlates with memory impairment in clinically isolated syndrome suggestive of multiple sclerosis. <i>Multiple Sclerosis Journal</i> , 2017, 23, 1214-1224.	3.0	52
44	Nonlocal Intracranial Cavity Extraction. <i>International Journal of Biomedical Imaging</i> , 2014, 2014, 1-11.	3.9	49
45	Regional hippocampal vulnerability in early multiple sclerosis: Dynamic pathological spreading from dentate gyrus to CA1. <i>Human Brain Mapping</i> , 2018, 39, 1814-1824.	3.6	49
46	Adaptive fusion of texture-based grading for Alzheimer's disease classification. <i>Computerized Medical Imaging and Graphics</i> , 2018, 70, 8-16.	5.8	44
47	Automatic thalamus and hippocampus segmentation from MP2RAGE: comparison of publicly available methods and implications for DTI quantification. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2016, 11, 1979-1991.	2.8	40
48	Nonlocal Patch-Based Label Fusion for Hippocampus Segmentation. <i>Lecture Notes in Computer Science</i> , 2010, 13, 129-136.	1.3	36
49	Appearance-based modeling for segmentation of hippocampus and amygdala using multi-contrast MR imaging. <i>NeuroImage</i> , 2011, 58, 549-559.	4.2	35
50	A comparison of accurate automatic hippocampal segmentation methods. <i>NeuroImage</i> , 2017, 155, 383-393.	4.2	35
51	Structural progression of Alzheimer's disease over decades: the MRI staging scheme. <i>Brain Communications</i> , 2022, 4, fcac109.	3.3	35
52	Multimodal Hippocampal Subfield Grading For Alzheimer's Disease Classification. <i>Scientific Reports</i> , 2019, 9, 13845.	3.3	33
53	MRI white matter lesion segmentation using an ensemble of neural networks and overcomplete patch-based voting. <i>Computerized Medical Imaging and Graphics</i> , 2018, 69, 43-51.	5.8	32
54	3D Rigid Registration of Intraoperative Ultrasound and Preoperative MR Brain Images Based on Hyperechogenic Structures. <i>International Journal of Biomedical Imaging</i> , 2012, 2012, 1-14.	3.9	31

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55	SuperPatchMatch: An Algorithm for Robust Correspondences Using Superpixel Patches. IEEE Transactions on Image Processing, 2017, 26, 4068-4078.	9.8	31
56	Optimized PatchMatch for Near Real Time and Accurate Label Fusion. Lecture Notes in Computer Science, 2014, 17, 105-112.	1.3	31
57	Differential annualized rates of hippocampal subfields atrophy in aging and future Alzheimer's clinical syndrome. Neurobiology of Aging, 2020, 90, 75-83.	3.1	28
58	Multi-scale graph-based grading for Alzheimer's disease prediction. Medical Image Analysis, 2021, 67, 101850.	11.6	28
59	An automatic geometrical and statistical method to detect acoustic shadows in intraoperative ultrasound brain images. Medical Image Analysis, 2010, 14, 195-204.	11.6	26
60	NABS: non-local automatic brain hemisphere segmentation. Magnetic Resonance Imaging, 2015, 33, 474-484.	1.8	25
61	Cerebellar parcellation in schizophrenia and bipolar disorder. Acta Psychiatrica Scandinavica, 2019, 140, 468-476.	4.5	24
62	Normal-Appearing White Matter Integrity Is a Predictor of Outcome After Ischemic Stroke. Stroke, 2020, 51, 449-456.	2.0	24
63	DeepLesionBrain: Towards a broader deep-learning generalization for multiple sclerosis lesion segmentation. Medical Image Analysis, 2022, 76, 102312.	11.6	24
64	Probe trajectory interpolation for 3D reconstruction of freehand ultrasound. Medical Image Analysis, 2007, 11, 604-615.	11.6	23
65	Optic Radiations Microstructural Changes in Glaucoma and Association With Severity: A Study Using 3Tesla-Magnetic Resonance Diffusion Tensor Imaging. , 2016, 57, 6539.		22
66	MRI Denoising Using Deep Learning. Lecture Notes in Computer Science, 2018, , 12-19.	1.3	22
67	Long-term antipsychotic and benzodiazepine use and brain volume changes in schizophrenia: The Northern Finland Birth Cohort 1966 study. Psychiatry Research - Neuroimaging, 2017, 266, 73-82.	1.8	21
68	Nonlocal regularization for active appearance model: Application to medial temporal lobe segmentation. Human Brain Mapping, 2014, 35, 377-395.	3.6	20
69	Cerebellar Atypicalities in Autism?. Biological Psychiatry, 2022, 92, 674-682.	1.3	20
70	Non-Local Means Inpainting of MS Lesions in Longitudinal Image Processing. Frontiers in Neuroscience, 2015, 9, 456.	2.8	19
71	Accuracy of MRI Classification Algorithms in a Tertiary Memory Center Clinical Routine Cohort. Journal of Alzheimer's Disease, 2020, 74, 1157-1166.	2.6	19
72	Toward a unified analysis of cerebellum maturation and aging across the entire lifespan: A <sc>MRI</sc> analysis. Human Brain Mapping, 2021, 42, 1287-1303.	3.6	19

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73	Validation of a hybrid Doppler ultrasound vessel-based registration algorithm for neurosurgery. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2012, 7, 667-685.	2.8	17
74	LesionBrain: An Online Tool for White Matter Lesion Segmentation. <i>Lecture Notes in Computer Science</i> , 2018, , 95-103.	1.3	17
75	Longitudinal study of functional brain network reorganization in clinically isolated syndrome. <i>Multiple Sclerosis Journal</i> , 2020, 26, 188-200.	3.0	17
76	Simulation of Biphasic CT Findings in Hepatic Cellular Carcinoma by a Two-Level Physiological Model. <i>IEEE Transactions on Biomedical Engineering</i> , 2007, 54, 538-542.	4.2	14
77	RegQCNET: Deep quality control for image-to-template brain MRI affine registration. <i>Physics in Medicine and Biology</i> , 2020, 65, 225022.	3.0	14
78	Evolution of brain atrophy subtypes during aging predicts long-term cognitive decline and future Alzheimer's clinical syndrome. <i>Neurobiology of Aging</i> , 2019, 79, 22-29.	3.1	13
79	Differential Gray Matter Vulnerability in the 1 Year Following a Clinically Isolated Syndrome. <i>Frontiers in Neurology</i> , 2018, 9, 824.	2.4	12
80	pBrain: A novel pipeline for Parkinson related brain structure segmentation. <i>NeuroImage: Clinical</i> , 2020, 25, 102184.	2.7	11
81	Microstructural analyses of the posterior cerebellar lobules in relapsing-onset multiple sclerosis and their implication in cognitive impairment. <i>PLoS ONE</i> , 2017, 12, e0182479.	2.5	11
82	Effect of cognitive rehabilitation on neuropsychological and semiecolological testing and on daily cognitive functioning in multiple sclerosis: The REACTIV randomized controlled study. <i>Journal of the Neurological Sciences</i> , 2020, 415, 116929.	0.6	9
83	Simultaneous Segmentation and Grading of Hippocampus for Patient Classification with Alzheimer's Disease. <i>Lecture Notes in Computer Science</i> , 2011, 14, 149-157.	1.3	9
84	Blind MRI Brain Lesion Inpainting Using Deep Learning. <i>Lecture Notes in Computer Science</i> , 2020, , 41-49.	1.3	9
85	vol2Brain: A New Online Pipeline for Whole Brain MRI Analysis. <i>Frontiers in Neuroinformatics</i> , 2022, 16, .	2.5	9
86	A PROBABILISTIC OBJECTIVE FUNCTION FOR 3D RIGID REGISTRATION OF INTRAOPERATIVE US AND PREOPERATIVE MR BRAIN IMAGES. , 2007, , .		8
87	Hippocampalâ€œamygdalaâ€œventricular atrophy score: Alzheimer disease detection using normative and pathological lifespan models. <i>Human Brain Mapping</i> , 2022, 43, 3270-3282.	3.6	8
88	Patch-Based DTI Grading: Application to Alzheimer's Disease Classification. <i>Lecture Notes in Computer Science</i> , 2016, , 76-83.	1.3	6
89	High Resolution Hippocampus Subfield Segmentation Using Multispectral Multiatlas Patch-Based Label Fusion. <i>Lecture Notes in Computer Science</i> , 2016, , 117-124.	1.3	6
90	Distinct Hippocampal Subfields Atrophy in Older People With Vascular Brain Injuries. <i>Stroke</i> , 2021, 52, 1741-1750.	2.0	6

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91	Anatomically Constrained Weak Classifier Fusion for Early Detection of Alzheimer's Disease. Lecture Notes in Computer Science, 2014, , 141-148.	1.3	6
92	A novel deep learning based hippocampus subfield segmentation method. Scientific Reports, 2022, 12, 1333.	3.3	6
93	Deep correction of breathing-related artifacts in real-time MR-thermometry. Computerized Medical Imaging and Graphics, 2021, 87, 101834.	5.8	5
94	Graph of Hippocampal Subfields Grading for Alzheimer's Disease Prediction. Lecture Notes in Computer Science, 2018, , 259-266.	1.3	5
95	HIST: HyperIntensity Segmentation Tool. Lecture Notes in Computer Science, 2016, , 92-99.	1.3	5
96	Adaptive Fusion of Texture-Based Grading: Application to Alzheimer's Disease Detection. Lecture Notes in Computer Science, 2017, , 82-89.	1.3	4
97	Grey and White Matter Volume Changes after Preterm Birth: A Meta-Analytic Approach. Journal of Personalized Medicine, 2021, 11, 868.	2.5	4
98	Graph of Brain Structures Grading for Early Detection of Alzheimer's Disease. Lecture Notes in Computer Science, 2018, , 429-436.	1.3	4
99	Deep Anomaly Generation: An Image Translation Approach of Synthesizing Abnormal Banded Chromosome Images. IEEE Access, 2022, 10, 59090-59098.	4.2	4
100	Acoustic shadows detection, application to accurate reconstruction of 3D intraoperative ultrasound. , 2008, , .		3
101	Early Prediction of Alzheimer's Disease with Non-local Patch-Based Longitudinal Descriptors. Lecture Notes in Computer Science, 2017, , 74-81.	1.3	3
102	Hippocampus Subfield Segmentation Using a Patch-Based Boosted Ensemble of Autocontext Neural Networks. Lecture Notes in Computer Science, 2017, , 29-36.	1.3	3
103	Antipsychotic and benzodiazepine use and brain morphology in schizophrenia and affective psychoses – Systematic reviews and birth cohort study. Psychiatry Research - Neuroimaging, 2018, 281, 43-52.	1.8	3
104	An Object-Based Method for Rician Noise Estimation in MR Images. Lecture Notes in Computer Science, 2009, 12, 601-608.	1.3	3
105	Normal-Appearing White Matter Deteriorates over the Year After an Ischemic Stroke and Is Associated with Global Cognition. Translational Stroke Research, 2022, 13, 716-724.	4.2	3
106	Robust 3D Reconstruction and Mean-Shift Clustering of Motoneurons from Serial Histological Images. Lecture Notes in Computer Science, 2010, , 191-199.	1.3	2
107	IC-P-150: A UNIFIED ASSESSMENT OF FULLY AUTOMATED HIPPOCAMPUS SEGMENTATION METHODS. , 2014, 10, P86-P86.		2
108	Tensor-Based Grading: A Novel Patch-Based Grading Approach for the Analysis Of Deformation Fields in Huntington's Disease. , 2020, 2020, 1091-1095.		2

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109	Deep Grading Based on Collective Artificial Intelligence for AD Diagnosis and Prognosis. Lecture Notes in Computer Science, 2021, , 24-33.	1.3	2
110	Patch-Based Segmentation from MP2RAGE Images: Comparison to Conventional Techniques. Lecture Notes in Computer Science, 2015, , 180-187.	1.3	2
111	Microstructural Gray Matter Integrity Deteriorates After an Ischemic Stroke and Is Associated with Processing Speed. Translational Stroke Research, 2023, 14, 185-192.	4.2	2
112	Intraoperative ultrasonography for the correction of brainshift based on the matching of hyperechogenic structures. , 2010, , .		1
113	ICâ€Pâ€099: A quantitative comparison between two manual hippocampal segmentation protocols. Alzheimer's and Dementia, 2015, 11, P67.	0.8	1
114	Non-local MRI Library-Based Super-Resolution: Application to Hippocampus Subfield Segmentation. Lecture Notes in Computer Science, 2016, , 68-75.	1.3	1
115	[P2â€“379]: ACCURACY OF MRI CLASSIFICATION ALGORITHMS IN A TERTIARY MEMORY CENTER CLINICAL ROUTINE COHORT. Alzheimer's and Dementia, 2017, 13, P772.	0.8	1
116	Sparse-Based Morphometry: Principle and Application to Alzheimerâ€™s Disease. Lecture Notes in Computer Science, 2016, , 43-50.	1.3	1
117	A patch-based framework for new ITK functionality: Joint fusion, denoising, and non-local super-resolution. The Insight Journal, 2017, , .	0.2	1
118	Lifetime antipsychotic use and brain structures in schizophrenia and other psychoses â€“ 43-year study of the Northern Finland Birth Cohort 1966. European Psychiatry, 2016, 33, S100-S101.	0.2	0
119	M89. Long-Term Antipsychotic and Benzodiazepine Use and Brain Volume Changes in Schizophrenia: The Northern Finland Birth Cohort 1966 Study. Schizophrenia Bulletin, 2017, 43, S243-S243.	4.3	0
120	A New Framework for Analyzing Structural Volume Changes of Longitudinal Brain MRI Data. Lecture Notes in Computer Science, 2012, , 50-62.	1.3	0
121	Deep learning based MRI contrast synthesis using full volume prediction using full volume prediction. Biomedical Physics and Engineering Express, 2022, 8, 015013.	1.2	0
122	Structural connectivity mapping in human hippocampal-subfields using super-resolution hybrid diffusion imaging: a feasibility study. Neuroradiology, 2022, , 1.	2.2	0