

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	Microstructural Gray Matter Integrity Deteriorates After an Ischemic Stroke and Is Associated with Processing Speed. <i>Translational Stroke Research</i> , 2023, 14, 185-192.	4.2	2
2	DeepLesionBrain: Towards a broader deep-learning generalization for multiple sclerosis lesion segmentation. <i>Medical Image Analysis</i> , 2022, 76, 102312.	11.6	24
3	Deep learning based MRI contrast synthesis using full volume prediction using full volume prediction. <i>Biomedical Physics and Engineering Express</i> , 2022, 8, 015013.	1.2	0
4	A novel deep learning based hippocampus subfield segmentation method. <i>Scientific Reports</i> , 2022, 12, 1333.	3.3	6
5	Normal-Appearing White Matter Deteriorates over the Year After an Ischemic Stroke and Is Associated with Global Cognition. <i>Translational Stroke Research</i> , 2022, 13, 716-724.	4.2	3
6	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
7	Structural progression of Alzheimerâ€™s disease over decades: the MRI staging scheme. <i>Brain Communications</i> , 2022, 4, fcac109.	3.3	35
8	Structural connectivity mapping in human hippocampal-subfields using super-resolution hybrid diffusion imaging: a feasibility study. <i>Neuroradiology</i> , 2022, , 1.	2.2	0
9	Deep Anomaly Generation: An Image Translation Approach of Synthesizing Abnormal Banded Chromosome Images. <i>IEEE Access</i> , 2022, 10, 59090-59098.	4.2	4
10	Cerebellar Atypicalities in Autism?. <i>Biological Psychiatry</i> , 2022, 92, 674-682.	1.3	20
11	vol2Brain: A New Online Pipeline for Whole Brain MRI Analysis. <i>Frontiers in Neuroinformatics</i> , 2022, 16, .	2.5	9
12	Multi-scale graph-based grading for Alzheimerâ€™s disease prediction. <i>Medical Image Analysis</i> , 2021, 67, 101850.	11.6	28
13	Deep correction of breathing-related artifacts in real-time MR-thermometry. <i>Computerized Medical Imaging and Graphics</i> , 2021, 87, 101834.	5.8	5
14	Deep Grading Based on Collective Artificial Intelligence for AD Diagnosis and Prognosis. <i>Lecture Notes in Computer Science</i> , 2021, , 24-33.	1.3	2
15	Distinct Hippocampal Subfields Atrophy in Older People With Vascular Brain Injuries. <i>Stroke</i> , 2021, 52, 1741-1750.	2.0	6
16	Grey and White Matter Volume Changes after Preterm Birth: A Meta-Analytic Approach. <i>Journal of Personalized Medicine</i> , 2021, 11, 868.	2.5	4
17	Toward a unified analysis of cerebellum maturation and aging across the entire lifespan: A <scp>MRI</scp> analysis. <i>Human Brain Mapping</i> , 2021, 42, 1287-1303.	3.6	19
18	Longitudinal study of functional brain network reorganization in clinically isolated syndrome. <i>Multiple Sclerosis Journal</i> , 2020, 26, 188-200.	3.0	17

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19	Normal-Appearing White Matter Integrity Is a Predictor of Outcome After Ischemic Stroke. <i>Stroke</i> , 2020, 51, 449-456.	2.0	24
20	Tensor-Based Grading: A Novel Patch-Based Grading Approach for the Analysis Of Deformation Fields in Huntington's Disease. , 2020, 2020, 1091-1095.		2
21	Accuracy of MRI Classification Algorithms in a Tertiary Memory Center Clinical Routine Cohort. <i>Journal of Alzheimer's Disease</i> , 2020, 74, 1157-1166.	2.6	19
22	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
23	AssemblyNet: A large ensemble of CNNs for 3D whole brain MRI segmentation. <i>NeuroImage</i> , 2020, 219, 117026.	4.2	78
24	pBrain: A novel pipeline for Parkinson related brain structure segmentation. <i>NeuroImage: Clinical</i> , 2020, 25, 102184.	2.7	11
25	Differential annualized rates of hippocampal subfields atrophy in aging and future Alzheimer's clinical syndrome. <i>Neurobiology of Aging</i> , 2020, 90, 75-83.	3.1	28
26	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
27	Blind MRI Brain Lesion Inpainting Using Deep Learning. <i>Lecture Notes in Computer Science</i> , 2020, , 41-49.	1.3	9
28	Cerebellar parcellation in schizophrenia and bipolar disorder. <i>Acta Psychiatrica Scandinavica</i> , 2019, 140, 468-476.	4.5	24
29	Multimodal Hippocampal Subfield Grading For Alzheimer's Disease Classification. <i>Scientific Reports</i> , 2019, 9, 13845.	3.3	33
30	Lifespan Changes of the Human Brain In Alzheimer's Disease. <i>Scientific Reports</i> , 2019, 9, 3998.	3.3	113
31	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
32	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
33	LesionBrain: An Online Tool for White Matter Lesion Segmentation. <i>Lecture Notes in Computer Science</i> , 2018, , 95-103.	1.3	17
34	MRI Denoising Using Deep Learning. <i>Lecture Notes in Computer Science</i> , 2018, , 12-19.	1.3	22
35	Differential Gray Matter Vulnerability in the 1 Year Following a Clinically Isolated Syndrome. <i>Frontiers in Neurology</i> , 2018, 9, 824.	2.4	12
36	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

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37	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
38	Antipsychotic and benzodiazepine use and brain morphology in schizophrenia and affective psychoses – Systematic reviews and birth cohort study. <i>Psychiatry Research - Neuroimaging</i> , 2018, 281, 43-52.	1.8	3
39	Comparing fully automated state-of-the-art cerebellum parcellation from magnetic resonance images. <i>NeuroImage</i> , 2018, 183, 150-172.	4.2	80
40	Graph of Hippocampal Subfields Grading for Alzheimer’s Disease Prediction. <i>Lecture Notes in Computer Science</i> , 2018, , 259-266.	1.3	5
41	Graph of Brain Structures Grading for Early Detection of Alzheimer’s Disease. <i>Lecture Notes in Computer Science</i> , 2018, , 429-436.	1.3	4
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	A comparison of accurate automatic hippocampal segmentation methods. <i>NeuroImage</i> , 2017, 155, 383-393.	4.2	35
44	Long-term antipsychotic and benzodiazepine use and brain volume changes in schizophrenia: The Northern Finland Birth Cohort 1966 study. <i>Psychiatry Research - Neuroimaging</i> , 2017, 266, 73-82.	1.8	21
45	SuperPatchMatch: An Algorithm for Robust Correspondences Using Superpixel Patches. <i>IEEE Transactions on Image Processing</i> , 2017, 26, 4068-4078.	9.8	31
46	HIPS: A new hippocampus subfield segmentation method. <i>NeuroImage</i> , 2017, 163, 286-295.	4.2	56
47	Early Prediction of Alzheimer’s Disease with Non-local Patch-Based Longitudinal Descriptors. <i>Lecture Notes in Computer Science</i> , 2017, , 74-81.	1.3	3
48	Adaptive Fusion of Texture-Based Grading: Application to Alzheimer’s Disease Detection. <i>Lecture Notes in Computer Science</i> , 2017, , 82-89.	1.3	4
49	Hippocampus Subfield Segmentation Using a Patch-Based Boosted Ensemble of Autocontext Neural Networks. <i>Lecture Notes in Computer Science</i> , 2017, , 29-36.	1.3	3
50	Towards a unified analysis of brain maturation and aging across the entire lifespan: A MRI analysis. <i>Human Brain Mapping</i> , 2017, 38, 5501-5518.	3.6	209
51	M89. Long-Term Antipsychotic and Benzodiazepine Use and Brain Volume Changes in Schizophrenia: The Northern Finland Birth Cohort 1966 Study. <i>Schizophrenia Bulletin</i> , 2017, 43, S243-S243.	4.3	0
52	CERES: A new cerebellum lobule segmentation method. <i>NeuroImage</i> , 2017, 147, 916-924.	4.2	133
53	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
54	[P2379]: ACCURACY OF MRI CLASSIFICATION ALGORITHMS IN A TERTIARY MEMORY CENTER CLINICAL ROUTINE COHORT. <i>Alzheimer's and Dementia</i> , 2017, 13, P772.	0.8	1

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55	Microstructural analyses of the posterior cerebellar lobules in relapsing-onset multiple sclerosis and their implication in cognitive impairment. PLoS ONE, 2017, 12, e0182479.	2.5	11
56	A patch-based framework for new ITK functionality: Joint fusion, denoising, and non-local super-resolution. The Insight Journal, 2017, , .	0.2	1
57	Optic Radiations Microstructural Changes in Glaucoma and Association With Severity: A Study Using 3Tesla-Magnetic Resonance Diffusion Tensor Imaging. , 2016, 57, 6539.		22
58	volBrain: An Online MRI Brain Volumetry System. Frontiers in Neuroinformatics, 2016, 10, 30.	2.5	379
59	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
60	Patch-Based DTI Grading: Application to Alzheimerâ€™s Disease Classification. Lecture Notes in Computer Science, 2016, , 76-83.	1.3	6
61	High Resolution Hippocampus Subfield Segmentation Using Multispectral Multiatlas Patch-Based Label Fusion. Lecture Notes in Computer Science, 2016, , 117-124.	1.3	6
62	Non-local MRI Library-Based Super-Resolution: Application to Hippocampus Subfield Segmentation. Lecture Notes in Computer Science, 2016, , 68-75.	1.3	1
63	Automatic thalamus and hippocampus segmentation from MP2RAGE: comparison of publicly available methods and implications for DTI quantification. International Journal of Computer Assisted Radiology and Surgery, 2016, 11, 1979-1991.	2.8	40
64	Non Local Spatial and Angular Matching: Enabling higher spatial resolution diffusion MRI datasets through adaptive denoising. Medical Image Analysis, 2016, 32, 115-130.	11.6	61
65	Early Fiber Number Ratio Is a Surrogate of Corticospinal Tract Integrity and Predicts Motor Recovery After Stroke. Stroke, 2016, 47, 1053-1059.	2.0	63
66	An Optimized PatchMatch for multi-scale and multi-feature label fusion. NeuroImage, 2016, 124, 770-782.	4.2	68
67	HIST: HyperIntensity Segmentation Tool. Lecture Notes in Computer Science, 2016, , 92-99.	1.3	5
68	Sparse-Based Morphometry: Principle and Application to Alzheimerâ€™s Disease. Lecture Notes in Computer Science, 2016, , 43-50.	1.3	1
69	ICâ€™099: A quantitative comparison between two manual hippocampal segmentation protocols. Alzheimer's and Dementia, 2015, 11, P67.	0.8	1
70	Detection of Alzheimer's disease signature in MR images seven years before conversion to dementia: Toward an early individual prognosis. Human Brain Mapping, 2015, 36, 4758-4770.	3.6	52
71	Non-Local Means Inpainting of MS Lesions in Longitudinal Image Processing. Frontiers in Neuroscience, 2015, 9, 456.	2.8	19
72	Rotation-invariant multi-contrast non-local means for MS lesion segmentation. NeuroImage: Clinical, 2015, 8, 376-389.	2.7	56

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73	Standardized evaluation of algorithms for computer-aided diagnosis of dementia based on structural MRI: The CADDementia challenge. <i>NeuroImage</i> , 2015, 111, 562-579.	4.2	266
74	MRI noise estimation and denoising using non-local PCA. <i>Medical Image Analysis</i> , 2015, 22, 35-47.	11.6	138
75	Structural imaging biomarkers of Alzheimer's disease: predicting disease progression. <i>Neurobiology of Aging</i> , 2015, 36, S23-S31.	3.1	101
76	NABS: non-local automatic brain hemisphere segmentation. <i>Magnetic Resonance Imaging</i> , 2015, 33, 474-484.	1.8	25
77	Patch-Based Segmentation from MP2RAGE Images: Comparison to Conventional Techniques. <i>Lecture Notes in Computer Science</i> , 2015, , 180-187.	1.3	2
78	Nonlocal Intracranial Cavity Extraction. <i>International Journal of Biomedical Imaging</i> , 2014, 2014, 1-11.	3.9	49
79	IC-P-150: A UNIFIED ASSESSMENT OF FULLY AUTOMATED HIPPOCAMPUS SEGMENTATION METHODS. , 2014, 10, P86-P86.		2
80	Nonlocal regularization for active appearance model: Application to medial temporal lobe segmentation. <i>Human Brain Mapping</i> , 2014, 35, 377-395.	3.6	20
81	Optimized PatchMatch for Near Real Time and Accurate Label Fusion. <i>Lecture Notes in Computer Science</i> , 2014, 17, 105-112.	1.3	31
82	Anatomically Constrained Weak Classifier Fusion for Early Detection of Alzheimer's Disease. <i>Lecture Notes in Computer Science</i> , 2014, , 141-148.	1.3	6
83	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. <i>NeuroImage</i> , 2013, 82, 393-402.	4.2	145
84	Volumetric analysis of medial temporal lobe structures in brain development from childhood to adolescence. <i>NeuroImage</i> , 2013, 74, 276-287.	4.2	91
85	Collaborative patch-based super-resolution for diffusion-weighted images. <i>NeuroImage</i> , 2013, 83, 245-261.	4.2	83
86	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
87	Segmentation of MR images via discriminative dictionary learning and sparse coding: Application to hippocampus labeling. <i>NeuroImage</i> , 2013, 76, 11-23.	4.2	196
88	Prediction of Alzheimer's disease in subjects with mild cognitive impairment from the ADNI cohort using patterns of cortical thinning. <i>NeuroImage</i> , 2013, 65, 511-521.	4.2	224
89	Diffusion Weighted Image Denoising Using Overcomplete Local PCA. <i>PLoS ONE</i> , 2013, 8, e73021.	2.5	299
90	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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91	Adaptive multiresolution non-local means filter for three-dimensional magnetic resonance image denoising. IET Image Processing, 2012, 6, 558.	2.5	84
92	Scoring by nonlocal image patch estimator for early detection of Alzheimer's disease. NeuroImage: Clinical, 2012, 1, 141-152.	2.7	104
93	BEaST: Brain extraction based on nonlocal segmentation technique. NeuroImage, 2012, 59, 2362-2373.	4.2	507
94	Simultaneous segmentation and grading of anatomical structures for patient's classification: Application to Alzheimer's disease. NeuroImage, 2012, 59, 3736-3747.	4.2	129
95	Validation of a hybrid Doppler ultrasound vessel-based registration algorithm for neurosurgery. International Journal of Computer Assisted Radiology and Surgery, 2012, 7, 667-685.	2.8	17
96	New methods for MRI denoising based on sparseness and self-similarity. Medical Image Analysis, 2012, 16, 18-27.	11.6	224
97	A CANDLE for a deeper in vivo insight. Medical Image Analysis, 2012, 16, 849-864.	11.6	58
98	A New Framework for Analyzing Structural Volume Changes of Longitudinal Brain MRI Data. Lecture Notes in Computer Science, 2012, , 50-62.	1.3	0
99	Appearance-based modeling for segmentation of hippocampus and amygdala using multi-contrast MR imaging. NeuroImage, 2011, 58, 549-559.	4.2	35
100	Patch-based segmentation using expert priors: Application to hippocampus and ventricle segmentation. NeuroImage, 2011, 54, 940-954.	4.2	692
101	Real time ultrasound image denoising. Journal of Real-Time Image Processing, 2011, 6, 15-22.	3.5	55
102	Simultaneous Segmentation and Grading of Hippocampus for Patient Classification with Alzheimer's Disease. Lecture Notes in Computer Science, 2011, 14, 149-157.	1.3	9
103	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
104	Non-local MRI upsampling. Medical Image Analysis, 2010, 14, 784-792.	11.6	218
105	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
106	Robust Rician noise estimation for MR images. Medical Image Analysis, 2010, 14, 483-493.	11.6	200
107	Intraoperative ultrasonography for the correction of brainshift based on the matching of hyperechogenic structures. , 2010, , .		1
108	MRI Superresolution Using Self-Similarity and Image Priors. International Journal of Biomedical Imaging, 2010, 2010, 1-11.	3.9	79

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109	Robust 3D Reconstruction and Mean-Shift Clustering of Motoneurons from Serial Histological Images. Lecture Notes in Computer Science, 2010, , 191-199.	1.3	2
110	Nonlocal Patch-Based Label Fusion for Hippocampus Segmentation. Lecture Notes in Computer Science, 2010, 13, 129-136.	1.3	36
111	Nonlocal means-based speckle filtering for ultrasound images. IEEE Transactions on Image Processing, 2009, 18, 2221-2229.	9.8	502
112	An Object-Based Method for Rician Noise Estimation in MR Images. Lecture Notes in Computer Science, 2009, 12, 601-608.	1.3	3
113	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
114	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
115	Bayesian non local means-based speckle filtering. , 2008, , .		62
116	Acoustic shadows detection, application to accurate reconstruction of 3D intraoperative ultrasound. , 2008, , .		3
117	3D Wavelet Subbands Mixing for Image Denoising. International Journal of Biomedical Imaging, 2008, 2008, 1-11.	3.9	65
118	A PROBABILISTIC OBJECTIVE FUNCTION FOR 3D RIGID REGISTRATION OF INTRAOPERATIVE US AND PREOPERATIVE MR BRAIN IMAGES. , 2007, , .		8
119	Non-Local Means Variants for Denoising of Diffusion-Weighted and Diffusion Tensor MRI. Lecture Notes in Computer Science, 2007, 10, 344-351.	1.3	52
120	Probe trajectory interpolation for 3D reconstruction of freehand ultrasound. Medical Image Analysis, 2007, 11, 604-615.	11.6	23
121	Simulation of Biphasic CT Findings in Hepatic Cellular Carcinoma by a Two-Level Physiological Model. IEEE Transactions on Biomedical Engineering, 2007, 54, 538-542.	4.2	14
122	Bayesian Non-local Means Filter, Image Redundancy and Adaptive Dictionaries for Noise Removal. , 2007, , 520-532.		144