Laurent Petit

List of Publications by Year
in descending order

94 papers	9,813 citations	57758 44 h-index	45317 90 g-index
111 all docs	111 docs citations	111 times ranked	9956 citing authors

#	Article	IF	Citations
1	The challenge of mapping the human connectome based on diffusion tractography. Nature Communications, 2017, 8, 1349.	12.8	956
2	An Area Specialized for Spatial Working Memory in Human Frontal Cortex. Science, 1998, 279, 1347-1351.	12.6	903
3	Cortical networks for working memory and executive functions sustain the conscious resting state in man. Brain Research Bulletin, 2001, 54, 287-298.	3.0	837
4	What is right-hemisphere contribution to phonological, lexico-semantic, and sentence processing?. NeuroImage, 2011, 54, 577-593.	4.2	383
5	A Parametric fMRI Study of Overt and Covert Shifts of Visuospatial Attention. NeuroImage, 2001, 14, 310-321.	4.2	324
6	Brain activity at rest: a multiscale hierarchical functional organization. Journal of Neurophysiology, 2011, 105, 2753-2763.	1.8	287
7	Functional Anatomy of a Prelearned Sequence of Horizontal Saccades in Humans. Journal of Neuroscience, 1996, 16, 3714-3726.	3.6	280
8	Sustained Activity in the Medial Wall during Working Memory Delays. Journal of Neuroscience, 1998, 18, 9429-9437.	3.6	257
9	The role of prefrontal cortex in working memory: examining the contents of consciousness. Philosophical Transactions of the Royal Society B: Biological Sciences, 1998, 353, 1819-1828.	4.0	252
10	Functional Anatomy of Pursuit Eye Movements in Humans as Revealed by fMRI. Journal of Neurophysiology, 1999, 82, 463-471.	1.8	249
11	Gaussian Mixture Modeling of Hemispheric Lateralization for Language in a Large Sample of Healthy Individuals Balanced for Handedness. PLoS ONE, 2014, 9, e101165.	2.5	246
12	Reopening the Mental Imagery Debate: Lessons from Functional Anatomy. NeuroImage, 1998, 8, 129-139.	4.2	242
13	Distinguishing the Functional Roles of Multiple Regions in Distributed Neural Systems for Visual Working Memory. NeuroImage, 2000, 11, 380-391.	4.2	235
14	PET study of voluntary saccadic eye movements in humans: basal ganglia-thalamocortical system and cingulate cortex involvement. Journal of Neurophysiology, 1993, 69, 1009-1017.	1.8	232
15	AICHA: An atlas of intrinsic connectivity of homotopic areas. Journal of Neuroscience Methods, 2015, 254, 46-59.	2.5	232
16	Dissociation of Saccade-Related and Pursuit-Related Activation in Human Frontal Eye Fields as Revealed by fMRI. Journal of Neurophysiology, 1997, 77, 3386-3390.	1.8	231
17	Recognition of white matter bundles using local and global streamline-based registration and clustering. NeuroImage, 2018, 170, 283-295.	4.2	205
18	Revisiting human hemispheric specialization with neuroimaging. Trends in Cognitive Sciences, 2013, 17, 69-80.	7.8	200

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19	Neural Correlates of Topographic Mental Exploration: The Impact of Route versus Survey Perspective Learning. NeuroImage, 2000, 12, 588-600.	4.2	198
20	The resting state questionnaire: An introspective questionnaire for evaluation of inner experience during the conscious resting state. Brain Research Bulletin, 2010, 81, 565-573.	3.0	146
21	Distinguishing the Functional Roles of Multiple Regions in Distributed Neural Systems for Visual Working Memory. NeuroImage, 2000, 11, 145-156.	4.2	145
22	Cortical Terminations of the Inferior Fronto-Occipital and Uncinate Fasciculi: Anatomical Stem-Based Virtual Dissection. Frontiers in Neuroanatomy, 2016, 10, 58.	1.7	114
23	How verbal and spatial manipulation networks contribute to calculation: An fMRI study. Neuropsychologia, 2008, 46, 2403-2414.	1.6	108
24	Patterns of hemodynamic low-frequency oscillations in the brain are modulated by the nature of free thought during rest. NeuroImage, 2012, 59, 3194-3200.	4.2	96
25	Tractography dissection variability: What happens when 42 groups dissect 14 white matter bundles on the same dataset?. NeuroImage, 2021, 243, 118502.	4.2	94
26	Revisiting the human uncinate fasciculus, its subcomponents and asymmetries with stem-based tractography and microdissection validation. Brain Structure and Function, 2017, 222, 1645-1662.	2.3	91
27	A positron emission tomography study of oculomotor imagery. NeuroReport, 1994, 5, 921-924.	1.2	89
28	Descriptive anatomy of Heschlâ€™s gyri in 430 healthy volunteers, including 198 left-handers. Brain Structure and Function, 2015, 220, 729-743.	2.3	89
29	Cerebral small vessel disease genomics and its implications across the lifespan. Nature Communications, 2020, 11, 6285.	12.8	89
30	The Nomenclature of Human White Matter Association Pathways: Proposal for a Systematic Taxonomic Anatomical Classification. Frontiers in Neuroanatomy, 2018, 12, 94.	1.7	82
31	BIL&GIN: A neuroimaging, cognitive, behavioral, and genetic database for the study of human brain lateralization. NeuroImage, 2016, 124, 1225-1231.	4.2	81
32	Neural Basis of Visually Guided Head Movements Studied With fMRI. Journal of Neurophysiology, 2003, 89, 2516-2527.	1.8	73
33	New insights in the homotopic and heterotopic connectivity of the frontal portion of the human corpus callosum revealed by microdissection and diffusion tractography. Human Brain Mapping, 2016, 37, 4718-4735.	3.6	73
34	PET study of the human foveal fixation system. Human Brain Mapping, 1999, 8, 28-43.	3.6	69
35	Pseudoneglect in line bisection judgement is associated with a modulation of right hemispheric spatial attention dominance in right-handers. Neuropsychologia, 2017, 94, 75-83.	1.6	65
36	A new method for accurate in vivo mapping of human brain connections using microstructural and anatomical information. Science Advances, 2020, 6, eaba8245.	10.3	64

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37	Bundle-specific tractography with incorporated anatomical and orientational priors. NeuroImage, 2019, 186, 382-398.	4.2	59
38	Tractostorm: The what, why, and how of tractography dissection reproducibility. Human Brain Mapping, 2020, 41, 1859-1874.	3.6	59
39	A SENtence Supramodal Areas AtlaS (SENSAAS) based on multiple task-induced activation mapping and graph analysis of intrinsic connectivity in 144 healthy right-handers. Brain Structure and Function, 2019, 224, 859-882.	2.3	58
40	Brain connections derived from diffusion MRI tractography can be highly anatomically accurateâ€”if we know where white matter pathways start, where they end, and where they do not go. Brain Structure and Function, 2020, 225, 2387-2402.	2.3	58
41	N170 ERPs could represent a logographic processing strategy in visual word recognition. Behavioral and Brain Functions, 2007, 3, 21.	3.3	56
42	Human brain diffusion tensor imaging at submillimeter isotropic resolution on a 3 Tesla clinical MRI scanner. NeuroImage, 2015, 118, 667-675.	4.2	56
43	Functional Neuroanatomy of the Human Visual Fixation System. European Journal of Neuroscience, 1995, 7, 169-174.	2.6	55
44	Strong rightward lateralization of the dorsal attentional network in leftâ€handers with right sightingâ€eye: An evolutionary advantage. Human Brain Mapping, 2015, 36, 1151-1164.	3.6	53
45	Weak language lateralization affects both verbal and spatial skills: An fMRI study in 297 subjects. Neuropsychologia, 2014, 65, 56-62.	1.6	48
46	A population-based atlas of the human pyramidal tract in 410 healthy participants. Brain Structure and Function, 2019, 224, 599-612.	2.3	48
47	Functional Asymmetries Revealed in Visually Guided Saccades: An fMRI Study. Journal of Neurophysiology, 2009, 102, 2994-3003.	1.8	47
48	Ax<scp>T</scp>ract: Toward microstructure informed tractography. Human Brain Mapping, 2017, 38, 5485-5500.	3.6	47
49	Left Hemisphere Lateralization for Language in Right-Handers Is Controlled in Part by Familial Sinistrality, Manual Preference Strength, and Head Size. Journal of Neuroscience, 2010, 30, 13314-13318.	3.6	46
50	Effect of Familial Sinistrality on Planum Temporale Surface and Brain Tissue Asymmetries. Cerebral Cortex, 2010, 20, 1476-1485.	2.9	44
51	Between-hand difference in ipsilateral deactivation is associated with hand lateralization: fMRI mapping of 284 volunteers balanced for handedness. Frontiers in Human Neuroscience, 2015, 9, 5.	2.0	42
52	Relationships between hand laterality and verbal and spatial skills in 436 healthy adults balanced for handedness. Laterality, 2014, 19, 383-404.	1.0	41
53	The association between hemispheric specialization for language production and for spatial attention depends on left-hand preference strength. Neuropsychologia, 2016, 93, 394-406.	1.6	41
54	Heschlâ€™s gyrification pattern is related to speech-listening hemispheric lateralization: FMRI investigation in 281 healthy volunteers. Brain Structure and Function, 2015, 220, 1585-1599.	2.3	39

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55	Impact of the virtual reality on the neural representation of an environment. Human Brain Mapping, 2010, 31, 1065-1075.	3.6	36
56	Prevalence of white matter pathways coming into a single white matter voxel orientation: The bottleneck issue in tractography. Human Brain Mapping, 2022, 43, 1196-1213.	3.6	34
57	Uncovering the inferior fronto-occipital fascicle and its topological organization in non-human primates: the missing connection for language evolution. Brain Structure and Function, 2019, 224, 1553-1567.	2.3	31
58	Right hemisphere dominance for auditory attention and its modulation by eye position: an event related fMRI study. Restorative Neurology and Neuroscience, 2007, 25, 211-25.	0.7	31
59	Age-Related Changes of Peak Width Skeletonized Mean Diffusivity (PSMD) Across the Adult Lifespan: A Multi-Cohort Study. Frontiers in Psychiatry, 2020, 11, 342.	2.6	26
60	Filtering in tractography using autoencoders (FINTA). Medical Image Analysis, 2021, 72, 102126.	11.6	23
61	The Superoanterior Fasciculus (SAF): A Novel White Matter Pathway in the Human Brain?. Frontiers in Neuroanatomy, 2019, 13, 24.	1.7	22
62	Use of anatomical parcellation to catalog and study structure-function relationships in the human brain. , 1997, 5, 228-232.		21
63	â€œCan touch thisâ€ Cross-modal shape categorization performance is associated with microstructural characteristics of white matter association pathways. Human Brain Mapping, 2017, 38, 842-854.	3.6	20
64	Hodology of the superior longitudinal system of the human brain: a historical perspective, the current controversies, and a proposal. Brain Structure and Function, 2021, 226, 1363-1384.	2.3	20
65	Learn to Track: Deep Learning for Tractography. Lecture Notes in Computer Science, 2017, , 540-547.	1.3	19
66	Functionnectome as a framework to analyse the contribution of brain circuits to fMRI. Communications Biology, 2021, 4, 1035.	4.4	18
67	A Novel Group ICA Approach Based on Multi-scale Individual Component Clustering. Application to a Large Sample of fMRI Data. Neuroinformatics, 2012, 10, 269-285.	2.8	17
68	The comparative anatomy of frontal eye fields in primates. Cortex, 2019, 118, 51-64.	2.4	17
69	Cognitive inhibition of number/length interference in a Piaget-like task: Evidence by combining ERP and MEG. Clinical Neurophysiology, 2009, 120, 1501-1513.	1.5	16
70	Eye position-dependent activity in the primary visual area as revealed by fMRI. Human Brain Mapping, 2007, 28, 673-680.	3.6	14
71	A common neural system is activated in hearing non-signers to process French Sign language and spoken French. Brain Research Bulletin, 2011, 84, 75-87.	3.0	13
72	Hierarchical Microstructure Informed Tractography. Brain Connectivity, 2021, 11, 75-88.	1.7	13

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73	Tractogram Filtering of Anatomically Non-plausible Fibers with Geometric Deep Learning. Lecture Notes in Computer Science, 2020, , 291-301.	1.3	12
74	Early visual evoked potentials are modulated by eye position in humans induced by whole body rotations. BMC Neuroscience, 2004, 5, 35.	1.9	11
75	The MRi-Share database: brain imaging in a cross-sectional cohort of 1870 university students. Brain Structure and Function, 2021, 226, 2057-2085.	2.3	11
76	The inferior fronto-occipital fascicle: a century of controversies from anatomy theaters to operative neurosurgery. Journal of Neurosurgical Sciences, 2022, 65, .	0.6	9
77	Neural correlates of counting large numerosity. ZDM - International Journal on Mathematics Education, 2010, 42, 569-577.	2.2	8
78	Tractostorm 2: Optimizing tractography dissection reproducibility with segmentation protocol dissemination. Human Brain Mapping, 2022, 43, 2134-2147.	3.6	8
79	Neuroanatomical correlates of haptic object processing: combined evidence from tractography and functional neuroimaging. Brain Structure and Function, 2018, 223, 619-633.	2.3	7
80	Novel characterization of the relationship between verbal listâ€learning outcomes and hippocampal subfields in healthy adults. Human Brain Mapping, 2021, 42, 5264-5277.	3.6	7
81	The neural correlates of highly iconic structures and topographic discourse in French Sign Language as observed in six hearing native signers. Brain and Language, 2010, 114, 180-192.	1.6	6
82	The link between structural connectivity and neurocognition illustrated by focal epilepsy. Epileptic Disorders, 2018, 20, 88-98.	1.3	6
83	Age-Related Variations in Regional White Matter Volumetry and Microstructure During the Post-adolescence Period: A Cross-Sectional Study of a Cohort of 1,713 University Students. Frontiers in Systems Neuroscience, 2021, 15, 692152.	2.5	5
84	Superior Parietal Lobule Involvement in the Representation of Visual Space: a PET Review. , 1997, , 77-91.		5
85	The influence of regions of interest on tractography virtual dissection protocols: general principles to learn and to follow. Brain Structure and Function, 2022, 227, 2191-2207.	2.3	5
86	Neural bases of topographical representation in humans: Contribution of neuroimaging studies. , 2010, , 17-30.		2
87	Editorial: Organization of the White Matter Anatomy in the Human Brain. Frontiers in Neuroanatomy, 2019, 13, 85.	1.7	2
88	BIRD: a brain imaging relational database. NeuroImage, 1996, 3, S112.	4.2	1
89	Response: Commentary: The Nomenclature of Human White Matter Association Pathways: Proposal for a Systematic Taxonomic Anatomical Classification. Frontiers in Neuroanatomy, 2019, 13, 91.	1.7	1
90	Localization and imaging of white matter fiber crossings in whole mouse brains using diffusion MRI and serial blockface OCT. , 2021, , .		1

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91	Do Executed, Imagined and Suppressed Saccadic Eye Movements Share the Same Neuronal Mechanisms in Healthy Human ?. , 1996, , 153-164.		1
92	Imagerie cÃ©rÃ©brale de l'imagerie mentale.. Medecine/Sciences, 1999, 15, 475.	0.2	1
93	Brain, language, and handedness: a family affair. Nature Precedings, 2009, , .	0.1	0
94	Reply to the letter to the Editor. Brain Structure and Function, 2021, 226, 2479-2480.	2.3	0