FranÃ§ois Rousseau

List of Publications by Year
in descending order

97	3,794	186265	144013
papers	citations	28 h-index	57 g-index

106	106	106	4227
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	On the growth and form of corticalÂconvolutions. Nature Physics, 2016, 12, 588-593.	16.7	436
2	A Supervised Patch-Based Approach for Human Brain Labeling. IEEE Transactions on Medical Imaging, 2011, 30, 1852-1862.	8.9	259
3	Registration-Based Approach for Reconstruction of High-Resolution In Utero Fetal MR Brain Images. Academic Radiology, 2006, 13, 1072-1081.	2.5	208
4	Early Folding Patterns and Asymmetries of the Normal Human Brain Detected from in Utero MRI. Cerebral Cortex, 2012, 22, 13-25.	2.9	207
5	Comprehensive processing, display and analysis forin vivo MR spectroscopic imaging. NMR in Biomedicine, 2006, 19, 492-503.	2.8	186
6	Intersection Based Motion Correction of Multislice MRI for 3-D in Utero Fetal Brain Image Formation. IEEE Transactions on Medical Imaging, 2010, 29, 146-158.	8.9	154
7	Local Tissue Growth Patterns Underlying Normal Fetal Human Brain Gyrification QuantifiedIn Utero. Journal of Neuroscience, 2011, 31, 2878-2887.	3.6	149
8	A spatiotemporal atlas of MR intensity, tissue probability and shape of the fetal brain with application to segmentation. NeuroImage, 2010, 53, 460-470.	4.2	143
9	Brain MRI super-resolution using deep 3D convolutional networks. , 2017, , .		140
10	A non-local approach for image super-resolution using intermodality priorsâ˜†. Medical Image Analysis, 2010, 14, 594-605.	11.6	126
11	A non-local fuzzy segmentation method: Application to brain MRI. Pattern Recognition, 2011, 44, 1916-1927.	8.1	108
12	Multiscale brain MRI super-resolution using deep 3D convolutional networks. Computerized Medical Imaging and Graphics, 2019, 77, 101647.	5.8	96
13	Atlasâ€based segmentation of developing tissues in the human brain with quantitative validation in young fetuses. Human Brain Mapping, 2010, 31, 1348-1358.	3.6	87
14	White Matter Atrophy and Cognitive Dysfunctions in Neuromyelitis Optica. PLoS ONE, 2012, 7, e33878.	2.5	85
15	Are Developmental Trajectories of Cortical Folding Comparable Between Cross-sectional Datasets of Fetuses and Preterm Newborns?. Cerebral Cortex, 2016, 26, 3023-3035.	2.9	83
16	A Unified Approach to Diffusion Direction Sensitive Slice Registration and 3-D DTI Reconstruction From Moving Fetal Brain Anatomy. IEEE Transactions on Medical Imaging, 2014, 33, 272-289.	8.9	74
17	Abdominal multi-organ segmentation with cascaded convolutional and adversarial deep networks. Artificial Intelligence in Medicine, 2021, 117, 102109.	6.5	59
18	BTK: An open-source toolkit for fetal brain MR image processing. Computer Methods and Programs in Biomedicine, 2013, 109, 65-73.	4.7	51

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19	Atlas-Free Surface Reconstruction of the Cortical Grey-White Interface in Infants. PLoS ONE, 2011, 6, e27128.	2.5	49
20	Reconstruction of scattered data in fetal diffusion MRI. Medical Image Analysis, 2012, 16, 28-37.	11.6	49
21	Confhusius: A robust and fully automatic calibration method for 3D freehand ultrasound. Medical Image Analysis, 2005, 9, 25-38.	11.6	48
22	White matter volume is decreased in the brain of patients with neuromyelitis optica. European Journal of Neurology, 2013, 20, 361-367.	3.3	47
23	Right Anterior Insula: Core Region of Hallucinations in Cognitive Neurodegenerative Diseases. PLoS ONE, 2014, 9, e114774.	2.5	47
24	On Super-Resolution for Fetal Brain MRI. Lecture Notes in Computer Science, 2010, 13, 355-362.	1.3	46
25	Scale-adaptive supervoxel-based random forests for liver tumor segmentation in dynamic contrast-enhanced CT scans. International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 223-233.	2.8	46
26	SegSRGAN: Super-resolution and segmentation using generative adversarial networks â€" Application to neonatal brain MRI. Computers in Biology and Medicine, 2020, 120, 103755.	7.0	46
27	Brain Hallucination. Lecture Notes in Computer Science, 2008, , 497-508.	1.3	42
28	Interactive segmentation based on component-trees. Pattern Recognition, 2011, 44, 2539-2554.	8.1	36
29	A Novel Approach to High Resolution Fetal Brain MR Imaging. Lecture Notes in Computer Science, 2005, 8, 548-555.	1.3	35
30	Mapping directionality specific volume changes using tensor based morphometry: An application to the study of gyrogenesis and lateralization of the human fetal brain. NeuroImage, 2012, 63, 947-958.	4.2	29
31	Bias Field Inconsistency Correction of Motion-Scattered Multislice MRI for Improved 3D Image Reconstruction. IEEE Transactions on Medical Imaging, 2011, 30, 1704-1712.	8.9	28
32	Convolutional Neural Networks for object recognition on mobile devices: A case study. , 2016, , .		28
33	Impaired emotional autobiographical memory associated with right amygdalar-hippocampal atrophy in Alzheimerâ€™s disease patients. Frontiers in Aging Neuroscience, 2015, 7, 21.	3.4	27
34	Evaluation of brain atrophy estimation algorithms using simulated ground-truth data. Medical Image Analysis, 2010, 14, 373-389.	11.6	22
35	Spectral clustering based parcellation of FETAL brain MRI. , 2015, , .		22
36	Residual Networks as Flows of Diffeomorphisms. Journal of Mathematical Imaging and Vision, 2020, 62, 365-375.	1.3	21

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37	Probabilistic tractography using Q-ball imaging and particle filtering: Application to adult and in-utero fetal brain studies. Medical Image Analysis, 2013, 17, 297-310.	11.6	20
38	Patch-based augmentation of Expectationâ€“Maximization for brain MRI tissue segmentation at arbitrary age after premature birth. NeuroImage, 2016, 127, 387-408.	4.2	20
39	A novel temporal calibration method for 3-D ultrasound. IEEE Transactions on Medical Imaging, 2006, 25, 1108-1112.	8.9	19
40	Correlations of quantitative MRI metrics with myelin basic protein (MBP) staining in a murine model of demyelination. NMR in Biomedicine, 2019, 32, e4116.	2.8	19
41	Alterations in Cortical Morphology after Neonatal Stroke: Compensation in the Contralesional Hemisphere?. Developmental Neurobiology, 2019, 79, 303-316.	3.0	17
42	A Non-Local Fuzzy Segmentation Method: Application to Brain MRI. Lecture Notes in Computer Science, 2009, , 606-613.	1.3	17
43	A fully automatic calibration procedure for freehand 3D ultrasound. , 0, , .		14
44	In vivo ankle joint kinematics from dynamic magnetic resonance imaging using a registration-based framework. Journal of Biomechanics, 2019, 86, 193-203.	2.1	14
45	Atlas-Based Segmentation of the Germinal Matrix from in Utero Clinical MRI of the Fetal Brain. Lecture Notes in Computer Science, 2008, 11, 351-358.	1.3	14
46	Quantitative Evaluation of Three Calibration Methods for 3-D Freehand Ultrasound. IEEE Transactions on Medical Imaging, 2006, 25, 1492-1501.	8.9	13
47	A Spatio-temporal Atlas of the Human Fetal Brain with Application to Tissue Segmentation. Lecture Notes in Computer Science, 2009, 12, 289-296.	1.3	13
48	Quantifying and modelling tissue maturation in the living human fetal brain. International Journal of Developmental Neuroscience, 2014, 32, 3-10.	1.6	12
49	Dynamic MRI for articulating joint evaluation on 1.5â€‰T and 3.0â€‰T scanners: setup, protocols, and real-time sequences. Insights Into Imaging, 2020, 11, 66.	3.4	12
50	Robust and Automatic Calibration Method for 3D Freehand Ultrasound. Lecture Notes in Computer Science, 2003, , 440-448.	1.3	11
51	An A Contrario Approach for Change Detection in 3D Multimodal Images: Application to Multiple Sclerosis in MRI. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 2069-72.	0.5	11
52	An iterative multi-atlas patch-based approach for cortex segmentation from neonatal MRI. Computerized Medical Imaging and Graphics, 2018, 70, 73-82.	5.8	11
53	Human brain labeling using image similarities. , 2011, , .		10
54	Random forests on hierarchical multi-scale supervoxels for liver tumor segmentation in dynamic contrast-enhanced CT scans. , 2016, , .		10

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55	Intersection based registration of slice stacks to form 3D images of the human fetal brain. , 2008, , .		9
56	Statistical model of laminar structure for atlas-based segmentation of the fetal brain from in utero MR images. Proceedings of SPIE, 2009, , .	0.8	9
57	Joint filtering estimation of Stokes vector images based on a nonlocal means approach. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2012, 29, 2028.	1.5	9
58	Supervised quality evaluation of binary partition trees for object segmentation. Pattern Recognition, 2021, 111, 107667.	8.1	9
59	The influence of biophysical parameters in a biomechanical model of cortical folding patterns. Scientific Reports, 2021, 11, 7686.	3.3	9
60	A groupwise super-resolution approach: Application to brain MRI. , 2010, , .		8
61	Segmentation of the cortex in fetal MRI using a topological model. , 2011, , .		8
62	Different Temporal Patterns of Specific and General Autobiographical Memories across the Lifespan in Alzheimerâ€™s Disease. Behavioural Neurology, 2015, 2015, 1-14.	2.1	8
63	Cockayne syndrome: a diffusion tensor imaging and volumetric study. British Journal of Radiology, 2016, 89, 20151033.	2.2	8
64	On the estimation and correction of bias in local atrophy estimations using example atrophy simulations. Computerized Medical Imaging and Graphics, 2013, 37, 538-551.	5.8	7
65	Missing data super-resolution using non-local and statistical priors. , 2015, , .		7
66	Joint Interpolation of Multisensor Sea Surface Temperature Fields Using Nonlocal and Statistical Priors. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 2665-2675.	4.9	7
67	A discriminative feature selection approach for shape analysis: Application to fetal brain cortical folding. Medical Image Analysis, 2017, 35, 313-326.	11.6	7
68	Spatiotemporal Morphometry of Adjacent Tissue Layers with Application to the Study of Sulcal Formation. Lecture Notes in Computer Science, 2011, 14, 476-483.	1.3	7
69	Probabilistic Tractography Using Q-Ball Modeling and Particle Filtering. Lecture Notes in Computer Science, 2011, 14, 209-216.	1.3	7
70	On early brain folding patterns using biomechanical growth modeling. , 2019, 2019, 146-149.		6
71	Semi-automatic Liver Tumor Segmentation in Dynamic Contrast-Enhanced CT Scans Using Random Forests and Supervoxels. Lecture Notes in Computer Science, 2015, , 212-219.	1.3	6
72	Reconstruction of Scattered Data in Fetal Diffusion MRI. Lecture Notes in Computer Science, 2010, 13, 574-581.	1.3	6

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73	An ISO-surface folding analysis method applied to premature neonatal brain development. , 2006, 6144, 529.		5
74	Reconstruction of a geometrically correct diffusion tensor image of a moving human fetal brain. Proceedings of SPIE, 2010, , .	0.8	5
75	Non-iterative relative bias correction for 3D reconstruction of in utero fetal brain MR imaging. , 2010, 2010, 879-82.		5
76	SLIMMER: SLIce MRI motion estimation and reconstruction tool for studies of fetal anatomy. , 2011, , .		5
77	A supervised patch-based image reconstruction technique: Application to brain MRI super-resolution. , 2013, , .		5
78	A diffusionâ€based method for longâ€T₂ suppression in steady state sequences: Validation and application for 3Dâ€UTE imaging. Magnetic Resonance in Medicine, 2018, 80, 548-559.	3.0	5
79	Artificial neuroradiology: Between human and artificial networks of neurons?. Journal of Neuroradiology, 2019, 46, 279-280.	1.1	5
80	A connectomeâ€based approach to assess motor outcome after neonatal arterial ischemic stroke. Annals of Clinical and Translational Neurology, 2021, 8, 1024-1037.	3.7	5
81	Measures for Characterizing Directionality Specific Volume Changes in TBM of Brain Growth. Lecture Notes in Computer Science, 2010, 13, 339-346.	1.3	5
82	Model-driven parameterization of fetal cortical surfaces. , 2015, , .		4
83	Unbiased Longitudinal Brain Atlas Creation Using Robust Linear Registration And Log-Euclidean Framework For Diffeomorphisms. , 2019, , .		4
84	Computational pipeline for the generation and validation of patient-specific mechanical models of brain development. Brain Multiphysics, 2022, 3, 100045.	2.3	4
85	Evaluation of sub-voxel registration accuracy between MRI and 3D MR spectroscopy of the brain. , 2005, , .		3
86	Spatially adapted augmentation of age-specific atlas-based segmentation using patch-based priors. , 2014, , .		3
87	On high-resolution image estimation using low-resolution brain MRI. , 2013, 2013, 1081-4.		2
88	Data-Driven Cortex Segmentation in Reconstructed Fetal MRI by Using Structural Constraints. Lecture Notes in Computer Science, 2011, , 503-511.	1.3	2
89	Use of Simulated Atrophy for Performance Analysis of Brain Atrophy Estimation Approaches. Lecture Notes in Computer Science, 2009, 12, 566-574.	1.3	2
90	Assessment and comparison of image quality between two real-time sequences for dynamic MRI of distal joints at 3.0 Tesla. Acta Radiologica, 2023, 64, 1093-1102.	1.1	2

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91	Detection and mapping of delays in early cortical folding derived from in utero MRI. , 2011, , .		1
92	Online Atlasing Using an Iterative Centroid. Lecture Notes in Computer Science, 2019, , 366-374.	1.3	1
93	Hierarchical Approach for Neonate Cerebellum Segmentation from MRI: An Experimental Study. Lecture Notes in Computer Science, 2019, , 483-495.	1.3	1
94	Atlas-based Segmentation of the Fetal Brain from Reconstructed 3D Clinical MRI: Quantitative Validation in Young Fetuses. NeuroImage, 2009, 47, S121.	4.2	0
95	Unsupervised white matter fiber tracts clustering methodology with application on brain MRI data. , 2014, , .		0
96	Multilabel, Multiscale Topological Transformation for Cerebral MRI Segmentation Post-processing. Lecture Notes in Computer Science, 2019, , 471-482.	1.3	0
97	Regional brain development analysis through registration using anisotropic similarity, a constrained affine transformation. PLoS ONE, 2020, 15, e0214174.	2.5	0