Jean Philippe Thiran

List of Publications by Year in Descending Order

238 papers	12,056 citations	49 h-index	105 g-index
264 ext. papers	14,385 ext. citations	5.9 avg, IF	6.17 L-index

#	Paper	IF	Citations
238	X-ray imaging detector for radiological applications adapted to the context and requirements of low- and middle-income countries.. *Review of Scientific Instruments*, **2022**, 93, 034102	1.7	1
237	Self-rule to multi-adapt: Generalized multi-source feature learning using unsupervised domain adaptation for colorectal cancer tissue detection.. *Medical Image Analysis*, **2022**, 79, 102473	15.4	3
236	Insights from the IronTract challenge: Optimal methods for mapping brain pathways from multi-shell diffusion MRI. *NeuroImage*, **2022**, 257, 119327	7.9	1
235	Evaluating reproducibility and subject-specificity of microstructure-informed connectivity. *NeuroImage*, **2022**, 119356	7.9	1
234	Axonal T estimation using the spherical variance of the strongly diffusion-weighted MRI signal. *Magnetic Resonance Imaging*, **2021**, 86, 118-118	3.3	0
233	Comparison of diffusion MRI and CLARITY fiber orientation estimates in both gray and white matter regions of human and primate brain. *NeuroImage*, **2021**, 228, 117692	7.9	10
232	Model-informed machine learning for multi-component T relaxometry. *Medical Image Analysis*, **2021**, 69, 101940	15.4	9
231	Comparison of non-parametric T relaxometry methods for myelin water quantification. *Medical Image Analysis*, **2021**, 69, 101959	15.4	4
230	MPRAGE to MP2RAGE UNI translation via generative adversarial network improves the automatic tissue and lesion segmentation in multiple sclerosis patients. *Computers in Biology and Medicine*, **2021**, 132, 104297	7	2
229	Fast and high-resolution myelin water imaging: Accelerating multi-echo GRASE with CAIPIRINHA. *Magnetic Resonance in Medicine*, **2021**, 85, 209-222	4.4	7
228	Normal volumetric and T1 relaxation time values at 1.5 T in segmented pediatric brain MRI using a MP2RAGE acquisition. *European Radiology*, **2021**, 31, 1505-1516	8	
227	Probing myelin content of the human brain with MRI: A review. *Magnetic Resonance in Medicine*, **2021**, 85, 627-652	4.4	14
226	The Microstructural Features of the Diffusion-Simulated Connectivity (DiSCo) Dataset. *Lecture Notes in Computer Science*, **2021**, 159-170	0.9	
225	Resolving bundle-specific intra-axonal T values within a voxel using diffusion-relaxation tract-based estimation. *NeuroImage*, **2021**, 227, 117617	7.9	11
224	The structural connectome and motor recovery after stroke: predicting natural recovery. *Brain*, **2021**, 144, 2107-2119	11.2	8
223	Fetal Brain Biometric Measurements on 3D Super-Resolution Reconstructed T2-Weighted MRI: An Intra- and Inter-observer Agreement Study. *Frontiers in Pediatrics*, **2021**, 9, 639746	3.4	2
222	The diffusion-simulated connectivity (DiSCo) dataset. *Data in Brief*, **2021**, 38, 107429	1.2	1

221	Tractography dissection variability: What happens when 42 groups dissect 14 white matter bundles on the same dataset?. *NeuroImage*, **2021**, 243, 118502	7.9	18
220	Revisiting the T spectrum imaging inverse problem: Bayesian regularized non-negative least squares. *NeuroImage*, **2021**, 244, 118582	7.9	0
219	Data-driven myelin water imaging based on T and T relaxometry.. *NMR in Biomedicine*, **2021**, e4668	4.4	
218	Accelerated MP2RAGE imaging using Cartesian phyllotaxis readout and compressed sensing reconstruction. *Magnetic Resonance in Medicine*, **2020**, 84, 1881-1894	4.4	12
217	Robust Monte-Carlo Simulations in Diffusion-MRI: Effect of the Substrate Complexity and Parameter Choice on the Reproducibility of Results. *Frontiers in Neuroinformatics*, **2020**, 14, 8	3.9	15
216	Axon morphology is modulated by the local environment and impacts the noninvasive investigation of its structure-function relationship. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 33649-33659	11.5	18
215	ActiveAx : Toward non-parametric and orientationally invariant axon diameter distribution mapping using PGSE. *Magnetic Resonance in Medicine*, **2020**, 83, 2322-2330	4.4	5
214	Multiple sclerosis cortical and WM lesion segmentation at 3T MRI: a deep learning method based on FLAIR and MP2RAGE. *NeuroImage: Clinical*, **2020**, 27, 102335	5.3	31
213	A new method for accurate in vivo mapping of human brain connections using microstructural and anatomical information. *Science Advances*, **2020**, 6, eaba8245	14.3	30
212	On the cortical connectivity in the macaque brain: A comparison of diffusion tractography and histological tracing data. *NeuroImage*, **2020**, 221, 117201	7.9	22
211	Tractography reproducibility challenge with empirical data (TraCED): The 2017 ISMRM diffusion study group challenge. *Journal of Magnetic Resonance Imaging*, **2020**, 51, 234-249	5.6	21
210	A comprehensive error rate for multiple testing. *Statistical Papers*, **2020**, 61, 1859-1874	1	
209	Adaptive phase correction of diffusion-weighted images. *NeuroImage*, **2020**, 206, 116274	7.9	7
208	Quantitative brain relaxation atlases for personalized detection and characterization of brain pathology. *Magnetic Resonance in Medicine*, **2020**, 83, 337-351	4.4	9
207	On Problem Formulation, Efficient Modeling and Deep Neural Networks for High-Quality Ultrasound Imaging : Invited Presentation **2019**,		4
206	A Physical Model of Nonstationary Blur in Ultrasound Imaging. *IEEE Transactions on Computational Imaging*, **2019**, 5, 381-394	4.5	9
205	Comparison of MRI-based automated segmentation methods and functional neurosurgery targeting with direct visualization of the Ventro-intermediate thalamic nucleus at 7T. *Scientific Reports*, **2019**, 9, 1119	4.9	15
204	Fast model-based T mapping using SAR-reduced simultaneous multislice excitation. *Magnetic Resonance in Medicine*, **2019**, 82, 2090-2103	4.4	6

203	Letter to the Editor. Resting-state functional MRI for functional neurosurgery: seeing the light?. *Journal of Neurosurgery*, **2019**, 1-2	3.2	
202	Sparse wars: A survey and comparative study of spherical deconvolution algorithms for diffusion MRI. *NeuroImage*, **2019**, 184, 140-160	7.9	21
201	Topological principles and developmental algorithms might refine diffusion tractography. *Brain Structure and Function*, **2019**, 224, 1-8	4	8
200	Joint Sparsity With Partially Known Support and Application to Ultrasound Imaging. *IEEE Signal Processing Letters*, **2019**, 26, 84-88	3.2	2
199	Limits to anatomical accuracy of diffusion tractography using modern approaches. *NeuroImage*, **2019**, 185, 1-11	7.9	110
198	Towards microstructure fingerprinting: Estimation of tissue properties from a dictionary of Monte Carlo diffusion MRI simulations. *NeuroImage*, **2019**, 184, 964-980	7.9	22
197	Ventrolateral Motor Thalamus Abnormal Connectivity in Essential Tremor Before and After Thalamotomy: A Resting-State Functional Magnetic Resonance Imaging Study. *World Neurosurgery*, **2018**, 113, e453-e464	2.1	15
196	Accelerated T mapping combining parallel MRI and model-based reconstruction: GRAPPATINI. *Journal of Magnetic Resonance Imaging*, **2018**, 48, 359-368	5.6	45
195	Pretherapeutic Functional Imaging Allows Prediction of Head Tremor Arrest After Thalamotomy for Essential Tremor: The Role of Altered Interconnectivity Between Thalamolimbic and Supplementary Motor Circuits. *World Neurosurgery*, **2018**, 112, e479-e488	2.1	6
194	Pretherapeutic Motor Thalamus Resting-State Functional Connectivity with Visual Areas Predicts Tremor Arrest After Thalamotomy for Essential Tremor: Tracing the Cerebello-thalamo-visuo-motor Network. *World Neurosurgery*, **2018**, 117, e438-e449	2.1	4
193	Ultrafast Ultrasound Imaging as an Inverse Problem: Matrix-Free Sparse Image Reconstruction. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2018**, 65, 339-355	3.2	18
192	In-vivo probabilistic atlas of human thalamic nuclei based on diffusion- weighted magnetic resonance imaging. *Scientific Data*, **2018**, 5, 180270	8.2	31
191	Deep Convolutional Neural Network for Ultrasound Image Enhancement **2018**,		17
190	Transient networks of spatio-temporal connectivity map communication pathways in brain functional systems. *NeuroImage*, **2017**, 155, 490-502	7.9	37
189	Robust thalamic nuclei segmentation method based on local diffusion magnetic resonance properties. *Brain Structure and Function*, **2017**, 222, 2203-2216	4	35
188	A deep learning approach to ultrasound image recovery **2017**,		4
187	USSR: An ultrasound sparse regularization framework **2017**,		1
186	AxTract: Toward microstructure informed tractography. *Human Brain Mapping*, **2017**, 38, 5485-5500	5.9	39

185	The challenge of mapping the human connectome based on diffusion tractography. *Nature Communications*, **2017**, 8, 1349	17.4	609
184	A deep learning approach to ultrasound image recovery **2017**,		5
183	Single-FPGA complete 3D and 2D medical ultrasound imager **2017**,		2
182	Learning the weight matrix for sparsity averaging in compressive imaging **2017**,		1
181	Inexpensive 1024-channel 3D telesonography system on FPGA **2017**,		2
180	Multi-channel MRI segmentation of eye structures and tumors using patient-specific features. *PLoS ONE*, **2017**, 12, e0173900	3.7	9
179	Generative models of the human connectome. *NeuroImage*, **2016**, 124, 1054-1064	7.9	180
178	Compressed delay-and-sum beamforming for ultrafast ultrasound imaging **2016**,		13
177	Surface-driven registration method for the structure-informed segmentation of diffusion MR images. *NeuroImage*, **2016**, 139, 450-461	7.9	7
176	Comparison of accelerated T1-weighted whole-brain structural-imaging protocols. *NeuroImage*, **2016**, 124, 157-167	7.9	10
175	Microstructure Informed Tractography: Pitfalls and Open Challenges. *Frontiers in Neuroscience*, **2016**, 10, 247	5.1	80
174	Structural Brain Network Reorganization and Social Cognition Related to Adverse Perinatal Condition from Infancy to Early Adolescence. *Frontiers in Neuroscience*, **2016**, 10, 560	5.1	18
173	Apodization scheme for hardware-efficient beamformer **2016**,		4
172	A compressed beamforming framework for ultrafast ultrasound imaging **2016**,		2
171	Morphological component analysis for sparse regularization in plane wave imaging **2016**,		2
170	Brain network characterization of high-risk preterm-born school-age children. *NeuroImage: Clinical*, **2016**, 11, 195-209	5.3	37
169	A Sparse Reconstruction Framework for Fourier-Based Plane-Wave Imaging. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2016**, 63, 2092-2106	3.2	26
168	Single-FPGA, scalable, low-power, and high-quality 3D ultrasound beamformer **2016**,		2

167	Intrahemispheric cortico-cortical connections of the human auditory cortex. *Brain Structure and Function*, **2015**, 220, 3537-53	4	17
166	Prediction of asynchronous dimensional emotion ratings from audiovisual and physiological data. *Pattern Recognition Letters*, **2015**, 66, 22-30	4.7	116
165	An efficient total variation algorithm for super-resolution in fetal brain MRI with adaptive regularization. *NeuroImage*, **2015**, 118, 584-97	7.9	67
164	Structured sparsity for spatially coherent fibre orientation estimation in diffusion MRI. *NeuroImage*, **2015**, 115, 245-55	7.9	20
163	Automatic Segmentation of the Eye in 3D Magnetic Resonance Imaging: A Novel Statistical Shape Model for Treatment Planning of Retinoblastoma. *International Journal of Radiation Oncology Biology Physics*, **2015**, 92, 794-802	4	12
162	Intracranial Aneurysms: Wall Motion Analysis for Prediction of Rupture. *American Journal of Neuroradiology*, **2015**, 36, 1796-802	4.4	22
161	Cluster validity measure and merging system for hierarchical clustering considering outliers. *Pattern Recognition*, **2015**, 48, 1478-1489	7.7	22
160	Accelerated Microstructure Imaging via Convex Optimization (AMICO) from diffusion MRI data. *NeuroImage*, **2015**, 105, 32-44	7.9	225
159	Structural Brain Connectivity in School-Age Preterm Infants Provides Evidence for Impaired Networks Relevant for Higher Order Cognitive Skills and Social Cognition. *Cerebral Cortex*, **2015**, 25, 2793-805	5.1	128
158	Extension of Ultrasound Fourier Slice Imaging theory to sectorial acquisition **2015**,		3
157	Development of CBCT-based prostate setup correction strategies and impact of rectal distension. *Radiation Oncology*, **2015**, 10, 83	4.2	8
156	A Sparse regularization approach for ultrafast ultrasound imaging **2015**,		5
155	COMMIT: Convex optimization modeling for microstructure informed tractography. *IEEE Transactions on Medical Imaging*, **2015**, 34, 246-57	11.7	138
154	Improved statistical evaluation of group differences in connectomes by screening-filtering strategy with application to study maturation of brain connections between childhood and adolescence. *NeuroImage*, **2015**, 108, 251-64	7.9	18
153	Characterizing the connectome in schizophrenia with diffusion spectrum imaging. *Human Brain Mapping*, **2015**, 36, 354-66	5.9	55
152	Spherical Deconvolution of Multichannel Diffusion MRI Data with Non-Gaussian Noise Models and Spatial Regularization. *PLoS ONE*, **2015**, 10, e0138910	3.7	21
151	Sparse regularization for fiber ODF reconstruction: from the suboptimality of ℓ2 and ℓ1 priors to ℓ0. *Medical Image Analysis*, **2014**, 18, 820-33	15.4	43
150	Resting-brain functional connectivity predicted by analytic measures of network communication. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 833-8	11.5	371

149	Quantitative comparison of reconstruction methods for intra-voxel fiber recovery from diffusion MRI. *IEEE Transactions on Medical Imaging*, **2014**, 33, 384-99	11.7	119
148	Connectivity and tissue microstructural alterations in right and left temporal lobe epilepsy revealed by diffusion spectrum imaging. *NeuroImage: Clinical*, **2014**, 5, 349-58	5.3	44
147	MP2RAGE provides new clinically-compatible correlates of mild cognitive deficits in relapsing-remitting multiple sclerosis. *Journal of Neurology*, **2014**, 261, 1606-13	5.5	20
146	Tensor optimization for optical-interferometric imaging. *Monthly Notices of the Royal Astronomical Society*, **2014**, 437, 2083-2091	4.3	6
145	Fast Geodesic Active Fields for Image Registration Based on Splitting and Augmented Lagrangian Approaches. *IEEE Transactions on Image Processing*, **2014**, 23, 673-83	8.7	
144	Surface reconstruction from microscopic images in optical lithography. *IEEE Transactions on Image Processing*, **2014**, 23, 3560-73	8.7	7
143	Harmonic active contours. *IEEE Transactions on Image Processing*, **2014**, 23, 69-82	8.7	19
142	Semi-supervised segmentation of ultrasound images based on patch representation and continuous min cut. *PLoS ONE*, **2014**, 9, e100972	3.7	22
141	Non-linear low-rank and sparse representation for hyperspectral image analysis **2014**,		2
140	Ultrasound Fourier slice imaging: a novel approach for ultrafast imaging technique **2014**,		9
139	Using Pareto optimality to explore the topology and dynamics of the human connectome. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2014**, 369,	5.8	34
138	Cardiac output measured by electrical impedance tomography: Applications and limitations **2014**,		4
137	Crop backscatter modeling and soil moisture estimation with support vector regression **2014**,		1
136	Efficient total variation algorithm for fetal brain MRI reconstruction. *Lecture Notes in Computer Science*, **2014**, 17, 252-9	0.9	3
135	Global tractography with embedded anatomical priors for quantitative connectivity analysis. *Frontiers in Neurology*, **2014**, 5, 232	4.1	26
134	MBIS: multivariate Bayesian image segmentation tool. *Computer Methods and Programs in Biomedicine*, **2014**, 115, 76-94	6.9	3
133	Enhanced compressed sensing recovery with level set normals. *IEEE Transactions on Image Processing*, **2013**, 22, 2611-26	8.7	33
132	Sparse Reverberant Audio Source Separation via Reweighted Analysis. *IEEE Transactions on Audio Speech and Language Processing*, **2013**, 21, 1391-1402		15

131	Source/Filter Factorial Hidden Markov Model, With Application to Pitch and Formant Tracking. *IEEE Transactions on Audio Speech and Language Processing*, **2013**, 21, 2541-2553		3
130	Tracking the source of cerebellar epilepsy: hemifacial seizures associated with cerebellar cortical dysplasia. *Epilepsy Research*, **2013**, 105, 245-9	3	18
129	Semi-Supervised Novelty Detection Using SVM Entire Solution Path. *IEEE Transactions on Geoscience and Remote Sensing*, **2013**, 51, 1939-1950	8.1	29
128	Sparse image reconstruction on the sphere: implications of a new sampling theorem. *IEEE Transactions on Image Processing*, **2013**, 22, 2275-85	8.7	13
127	Structural connectomics in brain diseases. *NeuroImage*, **2013**, 80, 515-26	7.9	218
126	Comparing connectomes across subjects and populations at different scales. *NeuroImage*, **2013**, 80, 416-25	7.9	55
125	Sparsity Averaging for Compressive Imaging. *IEEE Signal Processing Letters*, **2013**, 20, 591-594	3.2	46
124	Sample and Pixel Weighting Strategies for Robust Incremental Visual Tracking. *IEEE Transactions on Circuits and Systems for Video Technology*, **2013**, 23, 898-911	6.4	9
123	Soft tissue artifact assessment during treadmill walking in subjects with total knee arthroplasty. *IEEE Transactions on Biomedical Engineering*, **2013**, 60, 3131-40	5	47
122	Multi-scale community organization of the human structural connectome and its relationship with resting-state functional connectivity. *Network Science*, **2013**, 1, 353-373	2.9	77
121	A convex optimization framework for global tractography **2013**,		7
120	Automatic prostate segmentation in cone-beam computed tomography images using rigid registration. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2013**, 2013, 3993-7	0.9	2
119	Improved local binary pattern based action unit detection using morphological and bilateral filters **2013**,		3
118	Weighted Shape-Based Averaging With Neighborhood Prior Model for Multiple Atlas Fusion-Based Medical Image Segmentation. *IEEE Signal Processing Letters*, **2013**, 20, 1034-1037	3.2	12
117	A realistic computed tomography simulator for small motion analysis of cerebral aneurysms. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2013**, 2013, 5103-6	0.9	1
116	A connectome-based comparison of diffusion MRI schemes. *PLoS ONE*, **2013**, 8, e75061	3.7	16
115	Graph theory reveals dysconnected hubs in 22q11DS and altered nodal efficiency in patients with hallucinations. *Frontiers in Human Neuroscience*, **2013**, 7, 402	3.3	52
114	Reduced fronto-temporal and limbic connectivity in the 22q11.2 deletion syndrome: vulnerability markers for developing schizophrenia?. *PLoS ONE*, **2013**, 8, e58429	3.7	37

113	Multiple Local Curvature Gabor Binary Patterns for Facial Action Recognition. *Lecture Notes in Computer Science*, **2013**, 136-147	0.9	3
112	Mapping the human connectome at multiple scales with diffusion spectrum MRI. *Journal of Neuroscience Methods*, **2012**, 203, 386-97	3	283
111	High b-value diffusion-weighted imaging: a sensitive method to reveal white matter differences in schizophrenia. *Psychiatry Research - Neuroimaging*, **2012**, 201, 144-51	2.9	18
110	On Dynamic Stream Weighting for Audio-Visual Speech Recognition. *IEEE Transactions on Audio Speech and Language Processing*, **2012**, 20, 1145-1157		35
109	Spread spectrum magnetic resonance imaging. *IEEE Transactions on Medical Imaging*, **2012**, 31, 586-98	11.7	65
108	Efficient algorithm for level set method preserving distance function. *IEEE Transactions on Image Processing*, **2012**, 21, 4722-34	8.7	54
107	Unsupervised change detection via hierarchical support vector clustering **2012**,		3
106	Semi-supervised and unsupervised novelty detection using nested support vector machines **2012**,		1
105	Computing effective properties of random heterogeneous materials on heterogeneous parallel processors. *Computer Physics Communications*, **2012**, 183, 2424-2433	4.2	4
104	Multi-pose lipreading and audio-visual speech recognition. *Eurasip Journal on Advances in Signal Processing*, **2012**, 2012,	1.9	11
103	Structural and resting state functional connectivity of the subthalamic nucleus: identification of motor STN parts and the hyperdirect pathway. *PLoS ONE*, **2012**, 7, e39061	3.7	86
102	A new early and automated MRI-based predictor of motor improvement after stroke. *Neurology*, **2012**, 79, 39-46	6.5	37
101	A multi-center study: intra-scan and inter-scan variability of diffusion spectrum imaging. *NeuroImage*, **2012**, 62, 87-94	7.9	19
100	The connectome mapper: an open-source processing pipeline to map connectomes with MRI. *PLoS ONE*, **2012**, 7, e48121	3.7	180
99	Scale Invariant Feature Transform on the Sphere: Theory and Applications. *International Journal of Computer Vision*, **2012**, 98, 217-241	10.6	74
98	Evaluation of atlas fusion strategies for segmentation of head and neck lymph nodes for radiotherapy planning **2012**,		1
97	Fast globally supervised segmentation by active contours with shape and texture descriptors **2012**,		1
96	How to measure cortical folding from MR images: a step-by-step tutorial to compute local gyrification index. *Journal of Visualized Experiments*, **2012**, e3417	1.6	73

95	Musical Audio Source Separation Based on User-Selected F0 Track. *Lecture Notes in Computer Science*, **2012**, 438-445	0.9	22
94	Adaptive strategy for the statistical analysis of connectomes. *PLoS ONE*, **2011**, 6, e23009	3.7	34
93	Active deformation fields: dense deformation field estimation for atlas-based segmentation using the active contour framework. *Medical Image Analysis*, **2011**, 15, 787-800	15.4	24
92	Geodesic active fields--a geometric framework for image registration. *IEEE Transactions on Image Processing*, **2011**, 20, 1300-12	8.7	22
91	Comparison of energy minimization methods for 3-D brain tissue classification **2011**,		1
90	Sparse non-negative decomposition of speech power spectra for formant tracking **2011**,		4
89	Sampling theorems and compressive sensing on the sphere **2011**,		3
88	JULIDE: a software tool for 3D reconstruction and statistical analysis of autoradiographic mouse brain sections. *PLoS ONE*, **2010**, 5, e14094	3.7	5
87	Basic Concepts of Multimodal Analysis **2010**, 145-152		
86	Geodesic Active Fields on the Sphere **2010**,		1
85	White matter maturation reshapes structural connectivity in the late developing human brain. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 19067-72	11.5	486
84	Geodesic Active FieldsÂ A Geometric Framework for Image Registration **2010**,		1
83	Regional cortical volumes and congenital heart disease: a MRI study in 22q11.2 deletion syndrome. *Journal of Neurodevelopmental Disorders*, **2010**, 2, 224-234	4.6	23
82	Influence of the implanted pulse generator as reference electrode in finite element model of monopolar deep brain stimulation. *Journal of Neuroscience Methods*, **2010**, 186, 90-6	3	22
81	MR connectomics: Principles and challenges. *Journal of Neuroscience Methods*, **2010**, 194, 34-45	3	218
80	Information theoretic combination of pattern classifiers. *Pattern Recognition*, **2010**, 43, 3412-3421	7.7	28
79	Modality Integration Methods **2010**, 171-184		
78	Non-Euclidean image-adaptive Radial Basis Functions for 3D interactive segmentation **2009**,		16

77	Methods for determining frequency- and region-dependent relationships between estimated LFPs and BOLD responses in humans. *Journal of Neurophysiology*, **2009**, 101, 491-502	3.2	38
76	User-constrained guidewire localization in fluoroscopy **2009**,		5
75	. *IEEE Journal on Selected Topics in Signal Processing*, **2009**, 3, 135-147	7.5	37
74	Automatic quality assessment in structural brain magnetic resonance imaging. *Magnetic Resonance in Medicine*, **2009**, 62, 365-72	4.4	109
73	Sequential anisotropic multichannel Wiener filtering with Rician bias correction applied to 3D regularization of DWI data. *Medical Image Analysis*, **2009**, 13, 19-35	15.4	25
72	Cooperative Object Segmentation and Behavior Inference in Image Sequences. *International Journal of Computer Vision*, **2009**, 84, 146-162	10.6	6
71	Congenital heart disease affects local gyrification in 22q11.2 deletion syndrome. *Developmental Medicine and Child Neurology*, **2009**, 51, 746-53	3.3	54
70	Deviant trajectories of cortical maturation in 22q11.2 deletion syndrome (22q11DS): a cross-sectional and longitudinal study. *Schizophrenia Research*, **2009**, 115, 182-90	3.6	92
69	Information Theoretic Feature Extraction for Audio-Visual Speech Recognition. *IEEE Transactions on Signal Processing*, **2009**, 57, 4765-4776	4.8	42
68	A Scale-Space of Cortical Feature Maps. *IEEE Signal Processing Letters*, **2009**, 16, 873-876	3.2	4
67	Local landmark-based registration for fMRI group studies of nonprimary auditory cortex. *NeuroImage*, **2009**, 44, 145-53	7.9	13
66	Semi-supervised Segmentation Based on Non-local Continuous Min-Cut. *Lecture Notes in Computer Science*, **2009**, 112-123	0.9	11
65	A surface-based approach to quantify local cortical gyrification. *IEEE Transactions on Medical Imaging*, **2008**, 27, 161-70	11.7	373
64	CEC designer: Domain specific modelling for the industrial automation based on the IEC 61499 standard **2008**,		2
63	Shape prior based on statistical map for active contour segmentation **2008**,		5
62	Fast texture segmentation model based on the shape operator and active contour **2008**,		38
61	Bi-planar 2D-to-3D registration in Fourier domain for stereoscopic x-ray motion tracking **2008**,		4
60	Estimating the confidence level of white matter connections obtained with MRI tractography. *PLoS ONE*, **2008**, 3, e4006	3.7	25

59	Dynamic modality weighting for multi-stream hmms inaudio-visual speech recognition **2008**,		21
58	Relevant Feature Selection for Audio-Visual Speech Recognition **2007**,		8
57	Face detection with boosted Gaussian features. *Pattern Recognition*, **2007**, 40, 2283-2291	7.7	27
56	A level set method for segmentation of the thalamus and its nuclei in DT-MRI. *Signal Processing*, **2007**, 87, 309-321	4.4	51
55	Mapping human whole-brain structural networks with diffusion MRI. *PLoS ONE*, **2007**, 2, e597	3.7	590
54	Fast Global Minimization of the Active Contour/Snake Model. *Journal of Mathematical Imaging and Vision*, **2007**, 28, 151-167	1.6	613
53	Mixtures of boosted classifiers for frontal face detection. *Signal, Image and Video Processing*, **2007**, 1, 29-38	1.6	5
52	Joint Object Segmentation and Behavior Classification in Image Sequences **2007**,		3
51	Localization of electrodes in the subthalamic nucleus on magnetic resonance imaging. *Journal of Neurosurgery*, **2007**, 106, 36-44	3.2	102
50	Representing diffusion MRI in 5-D simplifies regularization and segmentation of white matter tracts. *IEEE Transactions on Medical Imaging*, **2007**, 26, 1547-54	11.7	17
49	Multisensory interactions within human primary cortices revealed by BOLD dynamics. *Cerebral Cortex*, **2007**, 17, 1672-9	5.1	193
48	Scale space analysis and active contours for omnidirectional images. *IEEE Transactions on Image Processing*, **2007**, 16, 1888-901	8.7	45
47	Variational Segmentation using Fuzzy Region Competition and Local Non-Parametric Probability Density Functions **2007**,		20
46	Analysis of Head-Mounted Wireless Camera Videos for Early Diagnosis of Autism. *Advances in Intelligent and Soft Computing*, **2007**, 663-670		13
45	Validation of Experts versus Atlas-based and Automatic Registration Methods for Subthalamic Nucleus Targeting on MRI. *International Journal of Computer Assisted Radiology and Surgery*, **2006**, 1, 5-12	3.9	14
44	Hand preference and sex shape the architecture of language networks. *Human Brain Mapping*, **2006** , 27, 828-35	5.9	81
43	Matching pursuit-based shape representation and recognition using scale-space. *International Journal of Imaging Systems and Technology*, **2006**, 16, 162-180	2.5	6
42	A cross validation study of deep brain stimulation targeting: from experts to atlas-based, segmentation-based and automatic registration algorithms. *IEEE Transactions on Medical Imaging*, **2006**, 25, 1440-50	11.7	37

41	Automatic Extraction of Geometric Lip Features with Application to Multi-Modal Speaker Identification **2006**,		6
40	Fibertract segmentation in position orientation space from high angular resolution diffusion MRI. *NeuroImage*, **2006**, 32, 665-75	7.9	35
39	Human auditory belt areas specialized in sound recognition: a functional magnetic resonance imaging study. *NeuroReport*, **2006**, 17, 1659-62	1.7	26
38	Understanding diffusion MR imaging techniques: from scalar diffusion-weighted imaging to diffusion tensor imaging and beyond. *Radiographics*, **2006**, 26 Suppl 1, S205-23	5.4	506
37	Behavioral Priors for Detection and Tracking of Pedestrians in Video Sequences. *International Journal of Computer Vision*, **2006**, 69, 159-180	10.6	92
36	A Variational Model for Object Segmentation Using Boundary Information and Shape Prior Driven by the Mumford-Shah Functional. *International Journal of Computer Vision*, **2006**, 68, 145-162	10.6	102
35	Multiscale Active Contours. *International Journal of Computer Vision*, **2006**, 70, 197-211	10.6	25
34	Segmentation of brain structures in presence of a space-occupying lesion. *NeuroImage*, **2005**, 24, 990-6	7.9	19
33	Multi-Layer Hierarchical Clustering of Pedestrian Trajectories for Automatic Counting of People in Video Sequences **2005**,		17
32	Automatic subthalamic nucleus targeting for deep brain stimulation. A validation study. *International Congress Series*, **2005**, 1281, 804-809		
31	Comparison and validation of tissue modelization and statistical classification methods in T1-weighted MR brain images. *IEEE Transactions on Medical Imaging*, **2005**, 24, 1548-65	11.7	302
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5	Feature space mutual information in speech-video sequences	7
4	Limits to anatomical accuracy of diffusion tractography using modern approaches	2
3	Axon morphology is modulated by the local environment and impacts the non-invasive investigation of its structure-function relationship	1
2	Tractography dissection variability: what happens when 42 groups dissect 14 white matter bundles on the same dataset?	5
1	Reducing false positives in tractography with microstructural and anatomical priors	5