Richard M Leahy

List of Publications by Citations

113 papers	**5,901** citations
28 h-index	**76** g-index
132 ext. papers	**7,270** ext. citations
4.8 avg, IF	**5.7** L-index

#	Paper	IF	Citations
113	Brainstorm: a user-friendly application for MEG/EEG analysis. *Computational Intelligence and Neuroscience*, **2011**, 2011, 879716	3	1585
112	Magnetic resonance image tissue classification using a partial volume model. *NeuroImage*, **2001**, 13, 856-76	7.6	732
111	BrainSuite: an automated cortical surface identification tool. *Medical Image Analysis*, **2002**, 6, 129-42	15.4	577
110	High-resolution 3D Bayesian image reconstruction using the microPET small-animal scanner. *Physics in Medicine and Biology*, **1998**, 43, 1001-13	3.8	473
109	Iterative reconstruction techniques in emission computed tomography. *Physics in Medicine and Biology*, **2006**, 51, R541-78	3.8	257
108	Coherent neural representation of hand speed in humans revealed by MEG imaging. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 7676-81	11.5	215
107	A comparison of random field theory and permutation methods for the statistical analysis of MEG data. *NeuroImage*, **2005**, 25, 383-94	7.9	147
106	Statistical approaches in quantitative positron emission tomography. *Statistics and Computing*, **2000**, 10, 147-165	1.8	140
105	Optimization and performance evaluation of the microPET II scanner for in vivo small-animal imaging. *Physics in Medicine and Biology*, **2004**, 49, 2527-45	3.8	121
104	Surface-constrained volumetric brain registration using harmonic mappings. *IEEE Transactions on Medical Imaging*, **2007**, 26, 1657-69	11.7	112
103	An evaluation of methods for neuromagnetic image reconstruction. *IEEE Transactions on Biomedical Engineering*, **1987**, 34, 713-23	5	104
102	Comparison of landmark-based and automatic methods for cortical surface registration. *NeuroImage*, **2010**, 49, 2479-93	7.9	100
101	PET image reconstruction using information theoretic anatomical priors. *IEEE Transactions on Medical Imaging*, **2011**, 30, 537-49	11.7	84
100	Non-local means denoising of dynamic PET images. *PLoS ONE*, **2013**, 8, e81390	3.7	81
99	A fingerprint of the epileptogenic zone in human epilepsies. *Brain*, **2018**, 141, 117-131	11.2	74
98	Magnetic resonance-guided positron emission tomography image reconstruction. *Seminars in Nuclear Medicine*, **2013**, 43, 30-44	5.4	73
97	Identifying true cortical interactions in MEG using the nulling beamformer. *NeuroImage*, **2010**, 49, 3161-74	7.9	71

96	Generic head models for atlas-based EEG source analysis. *Human Brain Mapping*, **2006**, 27, 129-43	5.9	59
95	Co-registration and distortion correction of diffusion and anatomical images based on inverse contrast normalization. *NeuroImage*, **2015**, 115, 269-80	7.9	57
94	MEG/EEG Group Analysis With Brainstorm. *Frontiers in Neuroscience*, **2019**, 13, 76	5.1	54
93	Childhood Music Training Induces Change in Micro and Macroscopic Brain Structure: Results from a Longitudinal Study. *Cerebral Cortex*, **2018**, 28, 4336-4347	5.1	47
92	Analysis of Resolution and Noise Properties of Nonquadratically Regularized Image Reconstruction Methods for PET. *IEEE Transactions on Medical Imaging*, **2008**, 27, 413-24	11.7	42
91	Patlak image estimation from dual time-point list-mode PET data. *IEEE Transactions on Medical Imaging*, **2014**, 33, 913-24	11.7	38
90	Loneliness and meaning in life are reflected in the intrinsic network architecture of the brain. *Social Cognitive and Affective Neuroscience*, **2019**, 14, 423-433	4	34
89	A Method for Automated Cortical Surface Registration and Labeling. *Lecture Notes in Computer Science*, **2012**, 7359, 180-189	0.9	34
88	Accurate estimation of the Fisher information matrix for the PET image reconstruction problem. *IEEE Transactions on Medical Imaging*, **2004**, 23, 1057-64	11.7	30
87	How age of acquisition influences brain architecture in bilinguals. *Journal of Neurolinguistics*, **2015**, 36, 35-55	1.9	29
86	Semi-automated method for delineation of landmarks on models of the cerebral cortex. *Journal of Neuroscience Methods*, **2009**, 178, 385-92	3	29
85	An equal start: absence of group differences in cognitive, social, and neural measures prior to music or sports training in children. *Frontiers in Human Neuroscience*, **2014**, 8, 690	3.3	25
84	Exact and approximate Fourier rebinning of PET data from time-of-flight to non time-of-flight. *Physics in Medicine and Biology*, **2009**, 54, 467-84	3.8	23
83	CORTICAL SURFACE PARAMETERIZATION BY P-HARMONIC ENERGY MINIMIZATION **2004**, 1, 428-431	1.5	22
82	Altered Structural and Functional Connectivity in Late Preterm Preadolescence: An Anatomic Seed-Based Study of Resting State Networks Related to the Posteromedial and Lateral Parietal Cortex. *PLoS ONE*, **2015**, 10, e0130686	3.7	20
81	Hemoglobin and mean platelet volume predicts diffuse T1-MRI white matter volume decrease in sickle cell disease patients. *NeuroImage: Clinical*, **2017**, 15, 239-246	5.3	18
80	Improved B0 -distortion correction in diffusion MRI using interlaced q-space sampling and constrained reconstruction. *Magnetic Resonance in Medicine*, **2014**, 72, 1218-32	4.4	18
79	Alterations of resting state networks and structural connectivity in relation to the prefrontal and anterior cingulate cortices in late prematurity. *NeuroReport*, **2015**, 26, 22-6	1.7	17

78	Are you thinking what I'm thinking? Synchronization of resting fMRI time-series across subjects. *NeuroImage*, **2018**, 172, 740-752	7.9	16
77	Linear transforms for Fourier data on the sphere: application to high angular resolution diffusion MRI of the brain. *NeuroImage*, **2013**, 71, 233-47	7.9	16
76	Connectivity of the human insula: A cortico-cortical evoked potential (CCEP) study. *Cortex*, **2019**, 120, 419-442	3.8	15
75	Sulcal set optimization for cortical surface registration. *NeuroImage*, **2010**, 50, 950-9	7.9	15
74	Temporal Non-Local Means Filtering Reveals Real-Time Whole-Brain Cortical Interactions in Resting fMRI. *PLoS ONE*, **2016**, 11, e0158504	3.7	15
73	A novel ANCOVA design for analysis of MEG data with application to a visual attention study. *NeuroImage*, **2009**, 44, 164-74	7.9	14
72	GEODESIC CURVATURE FLOW ON SURFACES FOR AUTOMATIC SULCAL DELINEATION **2012**, 2012, 430-433		13
71	A comparison of seven different DTI-derived estimates of corticospinal tract structural characteristics in chronic stroke survivors. *Journal of Neuroscience Methods*, **2018**, 304, 66-75	3	11
70	Anemia predicts lower white matter volume and cognitive performance in sickle and non-sickle cell anemia syndrome. *American Journal of Hematology*, **2019**, 94, 1055-1065	7.1	11
69	Detection of event-related modulations of oscillatory brain activity with multivariate statistical analysis of MEG data. *Human Brain Mapping*, **2009**, 30, 1922-34	5.9	11
68	Childhood EEG frontal alpha power as a predictor of adolescent antisocial behavior: a twin heritability study. *Biological Psychology*, **2015**, 105, 72-6	3.2	10
67	Automated MRI Volumetric Analysis in Patients with Rasmussen Syndrome. *American Journal of Neuroradiology*, **2016**, 37, 2348-2355	4.4	9
66	A framework for registration, statistical characterization and classification of cortically constrained functional imaging data. *Lecture Notes in Computer Science*, **2005**, 19, 186-96	0.9	9
65	Correcting Susceptibility-Induced Distortion in Diffusion-Weighted MRI using Constrained Nonrigid Registration **2012**, 2012,		9
64	Integrated open-source software for multiscale electrophysiology. *Scientific Data*, **2019**, 6, 231	8.2	8
63	To cut or not to cut? Assessing the modular structure of brain networks. *NeuroImage*, **2014**, 91, 99-108	7.9	8
62	PET IMAGE RECONSTRUCTION USING ANATOMICAL INFORMATION THROUGH MUTUAL INFORMATION BASED PRIORS: A SCALE SPACE APPROACH **2007**,		8
61	Learning to define an electrical biomarker of the epileptogenic zone. *Human Brain Mapping*, **2020**, 41, 429-441	5.9	8

60	Canonical Granger causality between regions of interest. *NeuroImage*, **2013**, 83, 189-99	7.9	7
59	Mutual information based non-rigidmouse registration using a scale-space approach **2008**,		7
58	Functional Imaging of Brain Activity and Connectivity with MEG. *Understanding Complex Systems*, **2007**, 201-219	0.4	7
57	Temporal non-local means filtering for studies of intrinsic brain connectivity from individual resting fMRI. *Medical Image Analysis*, **2020**, 61, 101635	15.4	7
56	GLOBAL PDF-BASED TEMPORAL NON-LOCAL MEANS FILTERING REVEALS INDIVIDUAL DIFFERENCES IN BRAIN CONNECTIVITY **2018**, 2018, 15-19	1.5	6
55	Kernel Methods for Riemannian Analysis of Robust Descriptors of the Cerebral Cortex. *Lecture Notes in Computer Science*, **2017**, 10265, 28-40	0.9	6
54	CORRECTING INHOMOGENEITY-INDUCED DISTORTION IN FMRI USING NON-RIGID REGISTRATION **2015**, 2015, 1364-1367	1.5	5
53	Dual-time-point Patlak estimation from list mode PET data **2012**,		5
52	Computer Simulated Studies of Tomographic Reconstruction with an Electronically Collimated Camera for SPECT. *IEEE Transactions on Nuclear Science*, **1987**, 34, 369-373	1.7	5
51	Heterotopia or overlaying cortex: What about in-between?. *Epilepsy & Behavior Case Reports*, **2019**, 11, 4-9	1.2	5
50	The FAST graph: A novel framework for the anatomically-guided visualization and analysis of cortico-cortical evoked potentials. *Epilepsy Research*, **2020**, 161, 106264	3	4
49	Statistically optimal graph partition method based on modularity **2010**,		4
48	Estimation of gap data using bow-tie filters for 3D time-of-flight PET **2010**,		4
47	Robust Identification of Partial-Correlation Based Networks with Applications to Cortical Thickness Data **2012**, 2012, 1551-1554	1.5	4
46	PET image reconstruction incorporating anatomical information using segmented regression **1997**, 3034, 381		4
45	A FINITE ELEMENT METHOD FOR ELASTIC PARAMETERIZATION AND ALIGNMENT OF CORTICAL SURFACES USING SULCAL CONSTRAINTS **2007**,		4
44	Age differences in the functional architecture of the human brain.. *Cerebral Cortex*, **2022**,	5.1	4
43	Scalable and Robust Tensor Decomposition of Spontaneous Stereotactic EEG Data. *IEEE Transactions on Biomedical Engineering*, **2019**, 66, 1549-1558	5	4

42	Whole-body parametric PET imaging will replace conventional image-derived PET metrics in clinical oncology. *Medical Physics*, **2018**, 45, 5355-5358	4.4	4
41	BRAIN LESION DETECTION USING A ROBUST VARIATIONAL AUTOENCODER AND TRANSFER LEARNING **2020**, 2020, 786-790	1.5	3
40	EEG for Current With Two-Dimensional Support. *IEEE Transactions on Biomedical Engineering*, **2018**, 65, 2101-2108	5	3
39	Statistically optimal modular partitioning of directed graphs **2010**,		3
38	Partitioning directed graphs based on modularity and information flow **2011**,		3
37	Assessing statistical significance when partitioning large-scale brain networks **2012**,		3
36	Riemannian Statistical Analysis of Cortical Geometry with Robustness to Partial Homology and Misalignment. *Lecture Notes in Computer Science*, **2016**, 9900, 237-246	0.9	3
35	Non-Rigid Image Registration Using Gaussian Mixture Models. *Lecture Notes in Computer Science*, **2012**, 7359, 286-295	0.9	3
34	A NETWORK-BASED APPROACH TO STUDY OF ADHD USING TENSOR DECOMPOSITION OF RESTING STATE FMRI DATA **2020**, 2020, 544-548	1.5	3
33	Validation of semi-automated anatomically labeled SEEG contacts in a brain atlas for mapping connectivity in focal epilepsy. *Epilepsia Open*, **2021**, 6, 493-503	4	3
32	Spatially varying regularization for motion compensated PET reconstruction **2012**,		2
31	Small animal PET with a clinical PET/CT: Optimizing image quality with MAP reconstruction and super-resolution **2012**,		2
30	BrainSync: An Orthogonal Transformation for Synchronization of fMRI Data Across Subjects. *Lecture Notes in Computer Science*, **2017**, 10433, 486-494	0.9	2
29	Functional architecture of the aging brain		2
28	Robust brain network identification from multi-subject asynchronous fMRI data. *NeuroImage*, **2021**, 227, 117615	7.9	2
27	**2020**,		1
26	Parameter selection for optimized non-local means filtering of task fMRI **2017**,		1
25	New linear transforms for data on a Fourier 2-sphere with application to diffusion MRI **2012**,		1

#	Title	IF	Cites
24	Viability of sharing MEG data using minimum-norm imaging **2011**,		1
23	Fast GPU-based time-of-flight MAP reconstruction with a factored system matrix **2010**,		1
22	Controlling familywise error rate for matched subspace detection in dynamic FDG PET. *IEEE Transactions on Medical Imaging*, **2009**, 28, 1623-31	11.7	1
21	A nonlocal averaging technique for kinetic parameter estimation from dynamic PET data **2011**,		1
20	Phase synchrony in multivariate Gaussian data with applications to cortical networks **2012**,		1
19	Spatial distortion correction and crystal identification for position-sensitive avalanche photodiode-based PET scanners **2008**,		1
18	FAST IMAGE RECONSTRUCTION METHODS FOR FULLY 3D MULTISPECTRAL OPTICAL BIOLUMINESCENCE TOMOGRAPHY **2007**,		1
17	Registration of cortical surfaces using sulcal landmarks for group analysis of MEG data. *International Congress Series*, **2007**, 1300, 229-232		1
16	Exploring Anemia's Impact on Brain Microstructure, Volume, Functional Connectivity, Iron and Cognitive Performance. *Blood*, **2019**, 134, 3553-3553	2.2	1
15	A hybrid high-resolution anatomical MRI atlas with sub-parcellation of cortical gyri using resting fMRI		1
14	Predicting Cognitive Scores from Resting fMRI Data and Geometric Features of the Brain. *Proceedings of SPIE*, **2019**, 10949,	1.7	1
13	**2019**,		1
12	Region-optimized virtual (ROVir) coils: Localization and/or suppression of spatial regions using sensor-domain beamforming. *Magnetic Resonance in Medicine*, **2021**, 86, 197-212	4.4	1
11	Effective connectivity differs between focal cortical dysplasia types I and II. *Epilepsia*, **2021**, 62, 2753-2765	6.4	1
10	A hybrid high-resolution anatomical MRI atlas with sub-parcellation of cortical gyri using resting fMRI.. *Journal of Neuroscience Methods*, **2022**, 109566	3	1
9	Lower white matter volume in beta-thalassemia associated with anemia and cognitive performance. *American Journal of Hematology*, **2020**, 95, E144-E146	7.1	0
8	A robust variational autoencoder using beta divergence. *Knowledge-Based Systems*, **2022**, 238, 107886	7.3	0
7	A Matched Filter Decomposition of fMRI into Resting and Task Components. *Lecture Notes in Computer Science*, **2019**, 11766, 673-681	0.9	0

6   Hemoglobin Level and Platelet Size Predicts Grey and White Matter Volume Loss Measured By Tensor Based Morphology in Sickle Cell Disease. *Blood*, **2016**, 128, 2481-2481   2.2

5   Regional Susceptibility to Chronic Anemia in WM Microstructure Using Diffusion Tensor Imaging. *Blood*, **2016**, 128, 3640-3640   2.2

4   Image reconstruction for PET and SPECT. *Imaging in Medical Diagnosis and Therapy*, **2017**, 235-257

3   rfDemons: Resting fMRI-based Cortical Surface Registration using the BrainSync Transform. *Lecture Notes in Computer Science*, **2018**, 11072, 198-205   0.9

2   Autoregression and Structured Low-Rank Modeling of Sinogram Neighborhoods.. *IEEE Transactions on Computational Imaging*, **2021**, 7, 1044-1054   4.5

1   Neuroanatomic Markers of Posttraumatic Epilepsy Based on MR Imaging and Machine Learning.. *American Journal of Neuroradiology*, **2022**, 43, 347-353   4.4