# Claudia A M Gandini Wheeler-Kingshott

#### List of Publications by Citations

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#	Paper	IF	Citations
238	Non-invasive mapping of connections between human thalamus and cortex using diffusion imaging. <i>Nature Neuroscience</i> , <b>2003</b> , 6, 750-7	25.5	1817
237	NODDI: practical in vivo neurite orientation dispersion and density imaging of the human brain. <i>NeuroImage</i> , <b>2012</b> , 61, 1000-16	7.9	1589
236	About "axial" and "radial" diffusivities. <i>Magnetic Resonance in Medicine</i> , <b>2009</b> , 61, 1255-60	4.4	68o
235	A framework for a streamline-based probabilistic index of connectivity (PICo) using a structural interpretation of MRI diffusion measurements. <i>Journal of Magnetic Resonance Imaging</i> , <b>2003</b> , 18, 242-54	4 <sup>5.6</sup>	424
234	Lateralization of ventral and dorsal auditory-language pathways in the human brain. <i>NeuroImage</i> , <b>2005</b> , 24, 656-66	7.9	411
233	Hemispheric asymmetries in language-related pathways: a combined functional MRI and tractography study. <i>NeuroImage</i> , <b>2006</b> , 32, 388-99	7.9	333
232	Diffusion tensor imaging of post mortem multiple sclerosis brain. <i>NeuroImage</i> , <b>2007</b> , 35, 467-77	7.9	306
231	Combined functional MRI and tractography to demonstrate the connectivity of the human primary motor cortex in vivo. <i>NeuroImage</i> , <b>2003</b> , 19, 1349-60	7.9	277
230	Estimating distributed anatomical connectivity using fast marching methods and diffusion tensor imaging. <i>IEEE Transactions on Medical Imaging</i> , <b>2002</b> , 21, 505-12	11.7	235
229	Investigating cervical spinal cord structure using axial diffusion tensor imaging. <i>NeuroImage</i> , <b>2002</b> , 16, 93-102	7.9	224
228	Quantitative magnetic resonance of postmortem multiple sclerosis brain before and after fixation. <i>Magnetic Resonance in Medicine</i> , <b>2008</b> , 59, 268-77	4.4	213
227	Reducing the impact of white matter lesions on automated measures of brain gray and white matter volumes. <i>Journal of Magnetic Resonance Imaging</i> , <b>2010</b> , 32, 223-8	5.6	208
226	The current state-of-the-art of spinal cord imaging: methods. <i>NeuroImage</i> , <b>2014</b> , 84, 1070-81	7.9	201
225	Deep gray matter volume loss drives disability worsening in multiple sclerosis. <i>Annals of Neurology</i> , <b>2018</b> , 83, 210-222	9.4	185
224	From diffusion tractography to quantitative white matter tract measures: a reproducibility study. <i>NeuroImage</i> , <b>2003</b> , 18, 348-59	7.9	174
223	Initial demonstration of in vivo tracing of axonal projections in the macaque brain and comparison with the human brain using diffusion tensor imaging and fast marching tractography. <i>NeuroImage</i> , <b>2002</b> , 15, 797-809	7.9	154
222	Pathogenesis of multiple sclerosis: insights from molecular and metabolic imaging. <i>Lancet Neurology, The</i> , <b>2014</b> , 13, 807-22	24.1	153

### (2016-2017)

221	Neurite dispersion: a new marker of multiple sclerosis spinal cord pathology?. <i>Annals of Clinical and Translational Neurology</i> , <b>2017</b> , 4, 663-679	5.3	148
220	A study of the mechanisms of normal-appearing white matter damage in multiple sclerosis using diffusion tensor imagingevidence of Wallerian degeneration. <i>Journal of Neurology</i> , <b>2003</b> , 250, 287-92	5.5	147
219	Progression of regional grey matter atrophy in multiple sclerosis. <i>Brain</i> , <b>2018</b> , 141, 1665-1677	11.2	146
218	Abnormalities of language networks in temporal lobe epilepsy. <i>NeuroImage</i> , <b>2007</b> , 36, 209-21	7.9	143
217	The current state-of-the-art of spinal cord imaging: applications. <i>NeuroImage</i> , <b>2014</b> , 84, 1082-93	7.9	142
216	Spinal cord spectroscopy and diffusion-based tractography to assess acute disability in multiple sclerosis. <i>Brain</i> , <b>2007</b> , 130, 2220-31	11.2	139
215	Optic nerve diffusion tensor imaging in optic neuritis. <i>NeuroImage</i> , <b>2006</b> , 30, 498-505	7.9	137
214	Longitudinal multiple sclerosis lesion segmentation: Resource and challenge. <i>NeuroImage</i> , <b>2017</b> , 148, 77-102	7.9	136
213	Phenytoin for neuroprotection in patients with acute optic neuritis: a randomised, placebo-controlled, phase 2 trial. <i>Lancet Neurology, The</i> , <b>2016</b> , 15, 259-69	24.1	129
212	Characterizing function-structure relationships in the human visual system with functional MRI and diffusion tensor imaging. <i>NeuroImage</i> , <b>2004</b> , 21, 1452-63	7.9	127
211	ADC mapping of the human optic nerve: increased resolution, coverage, and reliability with CSF-suppressed ZOOM-EPI. <i>Magnetic Resonance in Medicine</i> , <b>2002</b> , 47, 24-31	4.4	113
210	Identifying brain regions for integrative sensorimotor processing with ankle movements. <i>Experimental Brain Research</i> , <b>2005</b> , 166, 31-42	2.3	112
209	Diffusion tractography based group mapping of major white-matter pathways in the human brain. <i>NeuroImage</i> , <b>2003</b> , 19, 1545-55	7.9	109
208	Improved detection of cortical MS lesions with phase-sensitive inversion recovery MRI. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2012</b> , 83, 877-82	5.5	108
207	Optic radiation changes after optic neuritis detected by tractography-based group mapping. <i>Human Brain Mapping</i> , <b>2005</b> , 25, 308-16	5.9	108
206	MR tractography predicts visual field defects following temporal lobe resection. <i>Neurology</i> , <b>2005</b> , 65, 596-9	6.5	105
205	Contralateral cerebello-thalamo-cortical pathways with prominent involvement of associative areas in humans in vivo. <i>Brain Structure and Function</i> , <b>2015</b> , 220, 3369-84	4	99
204	Bingham-NODDI: Mapping anisotropic orientation dispersion of neurites using diffusion MRI. <i>Neurolmage</i> , <b>2016</b> , 133, 207-223	7.9	97

203	Nonconventional MRI and microstructural cerebral changes in multiple sclerosis. <i>Nature Reviews Neurology</i> , <b>2015</b> , 11, 676-86	15	93
202	The mesenchymal stem cells in multiple sclerosis (MSCIMS) trial protocol and baseline cohort characteristics: an open-label pre-test: post-test study with blinded outcome assessments. <i>Trials</i> , <b>2011</b> , 12, 62	2.8	93
201	Sodium accumulation is associated with disability and a progressive course in multiple sclerosis. <i>Brain</i> , <b>2013</b> , 136, 2305-17	11.2	85
200	Association of asymptomatic spinal cord lesions and atrophy with disability 5 years after a clinically isolated syndrome. <i>Multiple Sclerosis Journal</i> , <b>2017</b> , 23, 665-674	5	83
199	Assessing structure and function of the afferent visual pathway in multiple sclerosis and associated optic neuritis. <i>Journal of Neurology</i> , <b>2009</b> , 256, 305-19	5.5	83
198	Cervical cord lesion load is associated with disability independently from atrophy in MS. <i>Neurology</i> , <b>2015</b> , 84, 367-73	6.5	81
197	Neurite orientation dispersion and density imaging of the healthy cervical spinal cord in vivo. <i>NeuroImage</i> , <b>2015</b> , 111, 590-601	7.9	80
196	Contralateral cortico-ponto-cerebellar pathways reconstruction in humans in vivo: implications for reciprocal cerebro-cerebellar structural connectivity in motor and non-motor areas. <i>Scientific Reports</i> , <b>2017</b> , 7, 12841	4.9	78
195	Tractography of the parahippocampal gyrus and material specific memory impairment in unilateral temporal lobe epilepsy. <i>NeuroImage</i> , <b>2008</b> , 40, 1755-64	7.9	76
194	Imaging outcomes for trials of remyelination in multiple sclerosis. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2014</b> , 85, 1396-404	5.5	75
193	Spinal cord involvement in multiple sclerosis and neuromyelitis optica spectrum disorders. <i>Lancet Neurology, The</i> , <b>2019</b> , 18, 185-197	24.1	74
192	Reduced gamma-aminobutyric acid concentration is associated with physical disability in progressive multiple sclerosis. <i>Brain</i> , <b>2015</b> , 138, 2584-95	11.2	71
191	In vivo diffusion tensor imaging of the human optic nerve: pilot study in normal controls. <i>Magnetic Resonance in Medicine</i> , <b>2006</b> , 56, 446-51	4.4	68
190	Early imaging predictors of long-term outcomes in relapse-onset multiple sclerosis. <i>Brain</i> , <b>2019</b> , 142, 2276-2287	11.2	65
189	Feasibility of grey matter and white matter segmentation of the upper cervical cord in vivo: a pilot study with application to magnetisation transfer measurements. <i>NeuroImage</i> , <b>2012</b> , 63, 1054-9	7.9	65
188	Is multiple sclerosis a length-dependent central axonopathy? The case for therapeutic lag and the asynchronous progressive MS hypotheses. <i>Multiple Sclerosis and Related Disorders</i> , <b>2017</b> , 12, 70-78	4	64
187	Spinal cord grey matter segmentation challenge. <i>NeuroImage</i> , <b>2017</b> , 152, 312-329	7.9	64
186	Improved MRI quantification of spinal cord atrophy in multiple sclerosis. <i>Journal of Magnetic Resonance Imaging</i> , <b>2014</b> , 39, 617-23	5.6	64

### (2014-2010)

185	Neuroplasticity predicts outcome of optic neuritis independent of tissue damage. <i>Annals of Neurology</i> , <b>2010</b> , 67, 99-113	9.4	64	
184	Sensitivity of multi-shell NODDI to multiple sclerosis white matter changes: a pilot study. <i>Functional Neurology</i> , <b>2017</b> , 32, 97-101	2.2	61	
183	A ranking of diffusion MRI compartment models with in vivo human brain data. <i>Magnetic Resonance in Medicine</i> , <b>2014</b> , 72, 1785-92	4.4	61	
182	Changes in the frontotemporal cortex and cognitive correlates in first-episode psychosis. <i>Biological Psychiatry</i> , <b>2010</b> , 68, 51-60	7.9	61	
181	Magnetization transfer ratio measures in normal-appearing white matter show periventricular gradient abnormalities in multiple sclerosis. <i>Brain</i> , <b>2015</b> , 138, 1239-46	11.2	56	
180	Memory in multiple sclerosis is linked to glutamate concentration in grey matter regions. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2014</b> , 85, 833-9	5.5	56	
179	A comprehensive assessment of cerebellar damage in multiple sclerosis using diffusion tractography and volumetric analysis. <i>Multiple Sclerosis Journal</i> , <b>2011</b> , 17, 1079-87	5	55	
178	Recovery after spinal cord relapse in multiple sclerosis is predicted by radial diffusivity. <i>Multiple Sclerosis Journal</i> , <b>2010</b> , 16, 1193-202	5	54	
177	Axonal integrity predicts cortical reorganisation following cervical injury. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2012</b> , 83, 629-37	5.5	53	
176	Machine learning based compartment models with permeability for white matter microstructure imaging. <i>NeuroImage</i> , <b>2017</b> , 150, 119-135	7.9	52	
175	Spinal cord grey matter abnormalities are associated with secondary progression and physical disability in multiple sclerosis. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2015</b> , 86, 608-14	5.5	52	
174	Reduced grey matter perfusion without volume loss in early relapsing-remitting multiple sclerosis. Journal of Neurology, Neurosurgery and Psychiatry, <b>2014</b> , 85, 544-51	5.5	52	
173	A multi-time-point modality-agnostic patch-based method for lesion filling in multiple sclerosis. <i>NeuroImage</i> , <b>2016</b> , 139, 376-384	7.9	52	
172	Functional response to active and passive ankle movements with clinical correlations in patients with primary progressive multiple sclerosis. <i>Journal of Neurology</i> , <b>2006</b> , 253, 882-91	5.5	51	
171	Energy failure in multiple sclerosis and its investigation using MR techniques. <i>Journal of Neurology</i> , <b>2011</b> , 258, 2113-27	5.5	50	
170	Spinal cord repair in MS: does mitochondrial metabolism play a role?. <i>Neurology</i> , <b>2010</b> , 74, 721-7	6.5	49	
169	Efficacy of three neuroprotective drugs in secondary progressive multiple sclerosis (MS-SMART): a phase 2b, multiarm, double-blind, randomised placebo-controlled trial. <i>Lancet Neurology, The</i> , <b>2020</b> , 19, 214-225	24.1	48	
168	Investigation of outer cortical magnetisation transfer ratio abnormalities in multiple sclerosis clinical subgroups. <i>Multiple Sclerosis Journal</i> , <b>2014</b> , 20, 1322-30	5	48	

167	Degeneration of the injured cervical cord is associated with remote changes in corticospinal tract integrity and upper limb impairment. <i>PLoS ONE</i> , <b>2012</b> , 7, e51729	3.7	48
166	Reproducibility of brain ADC histograms. <i>European Radiology</i> , <b>2004</b> , 14, 425-30	8	48
165	White matter compartment models for in vivo diffusion MRI at 300mT/m. <i>NeuroImage</i> , <b>2015</b> , 118, 468-8	3 <b>3</b> 7.9	47
164	Effects of delayed-release dimethyl fumarate on MRI measures in the phase 3 CONFIRM study. <i>Neurology</i> , <b>2015</b> , 84, 1145-52	6.5	47
163	A comprehensive assessment of resting state networks: bidirectional modification of functional integrity in cerebro-cerebellar networks in dementia. <i>Frontiers in Neuroscience</i> , <b>2014</b> , 8, 223	5.1	47
162	Contiguous-slice zonally oblique multislice (CO-ZOOM) diffusion tensor imaging: examples of in vivo spinal cord and optic nerve applications. <i>Journal of Magnetic Resonance Imaging</i> , <b>2009</b> , 29, 454-60	5.6	47
161	Longitudinal evidence for anterograde trans-synaptic degeneration after optic neuritis. <i>Brain</i> , <b>2016</b> , 139, 816-28	11.2	46
160	A simple correction for B1 field errors in magnetization transfer ratio measurements. <i>Magnetic Resonance Imaging</i> , <b>2006</b> , 24, 255-63	3.3	45
159	Exploring white matter tracts in band heterotopia using diffusion tractography. <i>Annals of Neurology</i> , <b>2002</b> , 52, 327-34	9.4	45
158	Fully automated segmentation of the cervical cord from T1-weighted MRI using PropSeg: Application to multiple sclerosis. <i>NeuroImage: Clinical</i> , <b>2016</b> , 10, 71-7	5.3	44
157	Assessing neuronal metabolism in vivo by modeling imaging measures. <i>Journal of Neuroscience</i> , <b>2010</b> , 30, 15030-3	6.6	43
156	Evidence for early neurodegeneration in the cervical cord of patients with primary progressive multiple sclerosis. <i>Brain</i> , <b>2015</b> , 138, 1568-82	11.2	42
155	Cerebral arterial bolus arrival time is prolonged in multiple sclerosis and associated with disability. Journal of Cerebral Blood Flow and Metabolism, 2014, 34, 34-42	7.3	42
154	Determinants of iron accumulation in deep grey matter of multiple sclerosis patients. <i>Multiple Sclerosis Journal</i> , <b>2014</b> , 20, 1692-8	5	41
153	Postictal diffusion tensor imaging. <i>Epilepsy Research</i> , <b>2005</b> , 65, 137-46	3	41
152	An abnormal periventricular magnetization transfer ratio gradient occurs early in multiple sclerosis. <i>Brain</i> , <b>2017</b> , 140, 387-398	11.2	39
151	ZOOM or Non-ZOOM? Assessing Spinal Cord Diffusion Tensor Imaging Protocols for Multi-Centre Studies. <i>PLoS ONE</i> , <b>2016</b> , 11, e0155557	3.7	39
150	Low myo-inositol indicating astrocytic damage in a case series of neuromyelitis optica. <i>Annals of Neurology</i> , <b>2013</b> , 74, 301-5	9.4	37

### (2003-2016)

149	Relationship of grey and white matter abnormalities with distance from the surface of the brain in multiple sclerosis. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2016</b> , 87, 1212-1217	5.5	36	
148	MS cortical lesions on DIR: not quite what they seem?. <i>PLoS ONE</i> , <b>2013</b> , 8, e78879	3.7	34	
147	Urgent challenges in quantification and interpretation of brain grey matter atrophy in individual MS patients using MRI. <i>NeuroImage: Clinical</i> , <b>2018</b> , 19, 466-475	5.3	33	
146	Specific Patterns of White Matter Alterations Help Distinguishing Alzheimer's and Vascular Dementia. <i>Frontiers in Neuroscience</i> , <b>2018</b> , 12, 274	5.1	32	
145	Accurate GM atrophy quantification in MS using lesion-filling with co-registered 2D lesion masks. <i>NeuroImage: Clinical</i> , <b>2014</b> , 4, 366-73	5.3	32	
144	Investigation of magnetization transfer ratio-derived pial and subpial abnormalities in the multiple sclerosis spinal cord. <i>Brain</i> , <b>2014</b> , 137, 2456-68	11.2	32	
143	Spinal cord atrophy as a primary outcome measure in phase II trials of progressive multiple sclerosis. <i>Multiple Sclerosis Journal</i> , <b>2018</b> , 24, 932-941	5	31	
142	DIR-visible grey matter lesions and atrophy in multiple sclerosis: partners in crime?. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2016</b> , 87, 461-7	5.5	30	
141	Motor network efficiency and disability in multiple sclerosis. <i>Neurology</i> , <b>2015</b> , 85, 1115-22	6.5	30	
140	Reduced R2' in multiple sclerosis normal appearing white matter and lesions may reflect decreased myelin and iron content. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2012</b> , 83, 785-92	5.5	29	
139	Fully automated grey and white matter spinal cord segmentation. Scientific Reports, 2016, 6, 36151	4.9	28	
138	Method for simultaneous voxel-based morphometry of the brain and cervical spinal cord area measurements using 3D-MDEFT. <i>Journal of Magnetic Resonance Imaging</i> , <b>2010</b> , 32, 1242-7	5.6	28	
137	Combining tractography and cortical measures to test system-specific hypotheses in multiple sclerosis. <i>Multiple Sclerosis Journal</i> , <b>2010</b> , 16, 555-65	5	27	
136	Diffusion MRI microstructure models with in vivo human brain Connectome data: results from a multi-group comparison. <i>NMR in Biomedicine</i> , <b>2017</b> , 30, e3734	4.4	26	
135	Sodium ((23)Na) ultra-short echo time imaging in the human brain using a 3D-Cones trajectory. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , <b>2014</b> , 27, 35-46	2.8	26	
134	Multiple Sclerosis-Secondary Progressive Multi-Arm Randomisation Trial (MS-SMART): a multiarm phase IIb randomised, double-blind, placebo-controlled clinical trial comparing the efficacy of three neuroprotective drugs in secondary progressive multiple sclerosis. <i>BMJ Open</i> , <b>2018</b> , 8, e021944	3	26	
133	White and gray matter damage in primary progressive MS: The chicken or the egg?. <i>Neurology</i> , <b>2016</b> , 86, 170-6	6.5	25	
132	Preliminary magnetic resonance study of the macromolecular proton fraction in white matter: a potential marker of myelin?. <i>Multiple Sclerosis Journal</i> , <b>2003</b> , 9, 246-9	5	25	

131	Lifespan normative data on rates of brain volume changes. Neurobiology of Aging, 2019, 81, 30-37	5.6	24
130	The grey matter correlates of impaired decision-making in multiple sclerosis. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2015</b> , 86, 530-6	5.5	24
129	A Machine Learning Approach for the Differential Diagnosis of Alzheimer and Vascular Dementia Fed by MRI Selected Features. <i>Frontiers in Neuroinformatics</i> , <b>2020</b> , 14, 25	3.9	24
128	Differential involvement of cortical and cerebellar areas using dominant and nondominant hands: An FMRI study. <i>Human Brain Mapping</i> , <b>2015</b> , 36, 5079-100	5.9	24
127	Dissecting structure-function interactions in acute optic neuritis to investigate neuroplasticity. <i>Human Brain Mapping</i> , <b>2010</b> , 31, 276-86	5.9	24
126	Longitudinal evaluation of clinically early relapsing-remitting multiple sclerosis with diffusion tensor imaging. <i>Journal of Neurology</i> , <b>2008</b> , 255, 390-7	5.5	24
125	Reduced neurite density in the brain and cervical spinal cord in relapsing-remitting multiple sclerosis: A NODDI study. <i>Multiple Sclerosis Journal</i> , <b>2020</b> , 26, 1647-1657	5	24
124	Exploring Patterns of Alteration in Alzheimer's Disease Brain Networks: A Combined Structural and Functional Connectomics Analysis. <i>Frontiers in Neuroscience</i> , <b>2016</b> , 10, 380	5.1	24
123	Structural network disruption markers explain disability in multiple sclerosis. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2019</b> , 90, 219-226	5.5	24
122	Cervical cord area measurement using volumetric brain magnetic resonance imaging in multiple sclerosis. <i>Multiple Sclerosis and Related Disorders</i> , <b>2015</b> , 4, 52-7	4	23
121	Longitudinal spinal cord atrophy in multiple sclerosis using the generalized boundary shift integral. <i>Annals of Neurology</i> , <b>2019</b> , 86, 704-713	9.4	22
120	Guidelines for the conduct of clinical trials in spinal cord injury: Neuroimaging biomarkers. <i>Spinal Cord</i> , <b>2019</b> , 57, 717-728	2.7	21
119	Functional Connectivity Alterations Reveal Complex Mechanisms Based on Clinical and Radiological Status in Mild Relapsing Remitting Multiple Sclerosis. <i>Frontiers in Neurology</i> , <b>2018</b> , 9, 690	4.1	21
118	A framework for optimal whole-sample histological quantification of neurite orientation dispersion in the human spinal cord. <i>Journal of Neuroscience Methods</i> , <b>2016</b> , 273, 20-32	3	20
117	Characteristics of lesional and extra-lesional cortical grey matter in relapsing-remitting and secondary progressive multiple sclerosis: A magnetisation transfer and diffusion tensor imaging study. <i>Multiple Sclerosis Journal</i> , <b>2016</b> , 22, 150-9	5	19
116	Advanced MR imaging techniques and characterization of residual anatomy. <i>Clinical Neurology and Neurosurgery</i> , <b>2012</b> , 114, 460-70	2	19
115	Measuring brain atrophy with a generalized formulation of the boundary shift integral. <i>Neurobiology of Aging</i> , <b>2015</b> , 36 Suppl 1, S81-90	5.6	18
114	Voxel-based cervical spinal cord mapping of diffusion abnormalities in MS-related myelitis.  Neurology, <b>2014</b> , 83, 1321-5	6.5	18

## (2015-2013)

113	Tissue- and column-specific measurements from multi-parameter mapping of the human cervical spinal cord at 3 T. <i>NMR in Biomedicine</i> , <b>2013</b> , 26, 1823-30	4.4	18	
112	Relevance of time-dependence for clinically viable diffusion imaging of the spinal cord. <i>Magnetic Resonance in Medicine</i> , <b>2019</b> , 81, 1247-1264	4.4	18	
111	From micro- to macro-structures in multiple sclerosis: what is the added value of diffusion imaging. <i>NMR in Biomedicine</i> , <b>2019</b> , 32, e3888	4.4	18	
110	Mind the gap: from neurons to networks to outcomes in multiple sclerosis. <i>Nature Reviews Neurology</i> , <b>2021</b> , 17, 173-184	15	18	
109	Tractography dissection variability: What happens when 42 groups dissect 14 white matter bundles on the same dataset?. <i>NeuroImage</i> , <b>2021</b> , 243, 118502	7.9	18	
108	Abnormal age-related cortical folding and neurite morphology in children with developmental dyslexia. <i>NeuroImage: Clinical</i> , <b>2018</b> , 18, 814-821	5.3	17	
107	Sample sizes for lesion magnetisation transfer ratio outcomes in remyelination trials for multiple sclerosis. <i>Multiple Sclerosis and Related Disorders</i> , <b>2014</b> , 3, 237-43	4	17	
106	In vivo magnetic resonance spectroscopy detection of combined glutamate-glutamine in healthy upper cervical cord at 3 T. <i>NMR in Biomedicine</i> , <b>2013</b> , 26, 357-66	4.4	17	
105	The use of the lumbosacral enlargement as an intrinsic imaging biomarker: feasibility of grey matter and white matter cross-sectional area measurements using MRI at 3T. <i>PLoS ONE</i> , <b>2014</b> , 9, e1055	54 <sup>3</sup> 4 <sup>7</sup>	17	
104	Metabolic changes in the spinal cord after brachial plexus root re-implantation. <i>Neurorehabilitation and Neural Repair</i> , <b>2013</b> , 27, 118-24	4.7	17	
103	Early pericalcarine atrophy in acute optic neuritis is associated with conversion to multiple sclerosis. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2011</b> , 82, 1017-21	5.5	17	
102	Complex motor task associated with non-linear BOLD responses in cerebro-cortical areas and cerebellum. <i>Brain Structure and Function</i> , <b>2016</b> , 221, 2443-58	4	16	
101	Linking white matter tracts to associated cortical grey matter: a tract extension methodology. <i>NeuroImage</i> , <b>2012</b> , 59, 3094-102	7.9	15	
100	IQ and the fronto-temporal cortex in bipolar disorder. <i>Journal of the International Neuropsychological Society</i> , <b>2012</b> , 18, 370-4	3.1	15	
99	Diffusion MRI-based cortical complexity alterations associated with executive function in multiple sclerosis. <i>Journal of Magnetic Resonance Imaging</i> , <b>2013</b> , 38, 54-63	5.6	15	
98	Prominent Changes in Cerebro-Cerebellar Functional Connectivity During Continuous Cognitive Processing. <i>Frontiers in Cellular Neuroscience</i> , <b>2018</b> , 12, 331	6.1	15	
97	Increased resting cerebral blood flow in adult Fabry disease: MRI arterial spin labeling study. <i>Neurology</i> , <b>2018</b> , 90, e1379-e1385	6.5	14	
96	Regional patterns of grey matter atrophy and magnetisation transfer ratio abnormalities in multiple sclerosis clinical subgroups: a voxel-based analysis study. <i>Multiple Sclerosis Journal</i> , <b>2015</b> , 21, 423-32	5	13	

95	Brain atrophy and disability worsening in primary progressive multiple sclerosis: insights from the INFORMS study. <i>Annals of Clinical and Translational Neurology</i> , <b>2018</b> , 5, 346-356	5.3	13	
94	Multicenter R2* mapping in the healthy brain. <i>Magnetic Resonance in Medicine</i> , <b>2014</b> , 71, 1103-7	4.4	13	
93	MRI acquisition and analysis protocol for in vivo intraorbital optic nerve segmentation at 3T <b>2013</b> , 54, 4235-40		13	
92	Pathologic correlates of the magnetization transfer ratio in multiple sclerosis. <i>Neurology</i> , <b>2020</b> , 95, e29	6 <b>6</b> . <del>-</del> e29	97 <u>6</u> 5	
91	A longitudinal study of cortical grey matter lesion subtypes in relapse-onset multiple sclerosis. Journal of Neurology, Neurosurgery and Psychiatry, <b>2016</b> , 87, 750-3	5.5	12	
90	Fast and reproducible in vivo T mapping of the human cervical spinal cord. <i>Magnetic Resonance in Medicine</i> , <b>2018</b> , 79, 2142-2148	4.4	12	
89	Sodium quantification in the spinal cord at 3T. Magnetic Resonance in Medicine, 2013, 69, 1201-8	4.4	12	
88	STEAM-Burst: a single-shot, multi-slice imaging sequence without rapid gradient switching. <i>Magnetic Resonance in Medicine</i> , <b>1997</b> , 38, 645-52	4.4	12	
87	Age related changes in metabolite concentrations in the normal spinal cord. <i>PLoS ONE</i> , <b>2014</b> , 9, e10577	43.7	12	
86	Quantitative magnetic resonance imaging towards clinical application in multiple sclerosis. <i>Brain</i> , <b>2021</b> , 144, 1296-1311	11.2	12	
85	Multi-parametric quantitative in vivo spinal cord MRI with unified signal readout and image denoising. <i>NeuroImage</i> , <b>2020</b> , 217, 116884	7.9	11	
84	Machine learning based compartment models with permeability for white matter microstructure imaging. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 17, 257-64	0.9	11	
83	The importance of being dispersed: A ranking of diffusion MRI models for fibre dispersion using in vivo human brain data. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 16, 74-81	0.9	11	
82	I See Your Effort: Force-Related BOLD Effects in an Extended Action Execution-Observation Network Involving the Cerebellum. <i>Cerebral Cortex</i> , <b>2019</b> , 29, 1351-1368	5.1	11	
81	Generic acquisition protocol for quantitative MRI of the spinal cord. <i>Nature Protocols</i> , <b>2021</b> , 16, 4611-46	5 <b>3:2</b> 8.8	11	
80	Cortical grey matter sodium accumulation is associated with disability and secondary progressive disease course in relapse-onset multiple sclerosis. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2019</b> , 90, 755-760	5.5	10	
79	Substantia Nigra Volumetry with 3-T MRI in De Novo and Advanced Parkinson Disease. <i>Radiology</i> , <b>2020</b> , 296, 401-410	20.5	10	
78	Structural cortical network reorganization associated with early conversion to multiple sclerosis. <i>Scientific Reports</i> , <b>2018</b> , 8, 10715	4.9	10	

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77	Reconstructing contralateral fiber tracts: methodological aspects of cerebello-thalamocortical pathway reconstruction. <i>Functional Neurology</i> , <b>2016</b> , 31, 229-238	2.2	10
76	Generalised boundary shift integral for longitudinal assessment of spinal cord atrophy. <i>NeuroImage</i> , <b>2020</b> , 209, 116489	7.9	10
75	Bi-exponential Na T * component analysis in the human brain. NMR in Biomedicine, 2018, 31, e3899	4.4	9
74	Cerebellar lobules and dentate nuclei mirror cortical force-related-BOLD responses: Beyond all (linear) expectations. <i>Human Brain Mapping</i> , <b>2017</b> , 38, 2566-2579	5.9	9
73	Spatial variability and changes of metabolite concentrations in the cortico-spinal tract in multiple sclerosis using coronal CSI. <i>Human Brain Mapping</i> , <b>2014</b> , 35, 993-1003	5.9	9
72	A method for measuring the cross sectional area of the anterior portion of the optic nerve in vivo using a fast 3D MRI sequence. <i>Journal of Magnetic Resonance Imaging</i> , <b>2010</b> , 31, 1486-91	5.6	9
71	Development of a high-resolution fat and CSF-suppressed optic nerve DTI protocol at 3T: application in multiple sclerosis. <i>Functional Neurology</i> , <b>2013</b> , 28, 93-100	2.2	9
70	Reduced Field-of-View Diffusion-Weighted Imaging of the Lumbosacral Enlargement: A Pilot In Vivo Study of the Healthy Spinal Cord at 3T. <i>PLoS ONE</i> , <b>2016</b> , 11, e0164890	3.7	9
69	Clinical relevance of cortical network dynamics in early primary progressive MS. <i>Multiple Sclerosis Journal</i> , <b>2020</b> , 26, 442-456	5	9
68	Default Mode Network Structural Integrity and Cerebellar Connectivity Predict Information Processing Speed Deficit in Multiple Sclerosis. <i>Frontiers in Cellular Neuroscience</i> , <b>2019</b> , 13, 21	6.1	8
67	A multi-shell multi-tissue diffusion study of brain connectivity in early multiple sclerosis. <i>Multiple Sclerosis Journal</i> , <b>2020</b> , 26, 774-785	5	8
66	Magnetisation transfer ratio abnormalities in primary and secondary progressive multiple sclerosis. <i>Multiple Sclerosis Journal</i> , <b>2020</b> , 26, 679-687	5	8
65	Ongoing microstructural changes in the cervical cord underpin disability progression in early primary progressive multiple sclerosis. <i>Multiple Sclerosis Journal</i> , <b>2021</b> , 27, 28-38	5	8
64	Unsuspected Involvement of Spinal Cord in Alzheimer Disease. <i>Frontiers in Cellular Neuroscience</i> , <b>2020</b> , 14, 6	6.1	7
63	An optimized framework for quantitative magnetization transfer imaging of the cervical spinal cord in vivo. <i>Magnetic Resonance in Medicine</i> , <b>2018</b> , 79, 2576-2588	4.4	7
62	A modality-agnostic patch-based technique for lesion filling in multiple sclerosis. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 17, 781-8	0.9	7
61	Brain microstructural and metabolic alterations detected in vivo at onset of the first demyelinating event. <i>Brain</i> , <b>2021</b> , 144, 1409-1421	11.2	7
60	Image quality assessment for closed-loop computer-assisted lung ultrasound 2021,		7

59	Characterisation of tissue-type metabolic content in secondary progressive multiple sclerosis: a magnetic resonance spectroscopic imaging study. <i>Journal of Neurology</i> , <b>2018</b> , 265, 1795-1802	5.5	7
58	Multi-channel registration of fractional anisotropy and T1-weighted images in the presence of atrophy: application to multiple sclerosis. <i>Functional Neurology</i> , <b>2015</b> , 30, 245-56	2.2	6
57	Amiloride, fluoxetine or riluzole to reduce brain volume loss in secondary progressive multiple sclerosis: the MS-SMART four-arm RCT. <i>Efficacy and Mechanism Evaluation</i> , <b>2020</b> , 7, 1-72	1.7	6
56	Cortical involvement determines impairment 30 years after a clinically isolated syndrome. <i>Brain</i> , <b>2021</b> , 144, 1384-1395	11.2	6
55	HLA-DRB*1501 associations with magnetic resonance imaging measures of grey matter pathology in multiple sclerosis. <i>Multiple Sclerosis and Related Disorders</i> , <b>2016</b> , 7, 47-52	4	6
54	Open-access quantitative MRI data of the spinal cord and reproducibility across participants, sites and manufacturers. <i>Scientific Data</i> , <b>2021</b> , 8, 219	8.2	6
53	Safety and efficacy of bexarotene in patients with relapsing-remitting multiple sclerosis (CCMR One): a randomised, double-blind, placebo-controlled, parallel-group, phase 2a study. <i>Lancet Neurology, The</i> , <b>2021</b> , 20, 709-720	24.1	6
52	Tractography dissection variability: what happens when 42 groups dissect 14 white matter bundles on the same dataset?		5
51	NAA is a Marker of Disability in Secondary-Progressive MS: A Proton MR Spectroscopic Imaging Study. <i>American Journal of Neuroradiology</i> , <b>2020</b> , 41, 2209-2218	4.4	5
50	Periventricular magnetisation transfer ratio abnormalities in multiple sclerosis improve after alemtuzumab. <i>Multiple Sclerosis Journal</i> , <b>2020</b> , 26, 1093-1101	5	5
49	Challenges and Perspectives of Quantitative Functional Sodium Imaging (fNaI). <i>Frontiers in Neuroscience</i> , <b>2018</b> , 12, 810	5.1	5
48	In vivo estimation of dispersion anisotropy of neurites using diffusion MRI. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 17, 241-8	0.9	4
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46	The Importance of Cerebellar Connectivity on Simulated Brain Dynamics. <i>Frontiers in Cellular Neuroscience</i> , <b>2020</b> , 14, 240	6.1	4
45	Pilot Study on Quantitative Cervical Cord and Muscular MRI in Spinal Muscular Atrophy: Promising Biomarkers of Disease Evolution and Treatment?. <i>Frontiers in Neurology</i> , <b>2021</b> , 12, 613834	4.1	4
44	Gray vs. White Matter Segmentation of the Conus Medullaris: Reliability and Variability in Healthy Volunteers. <i>Journal of Neuroimaging</i> , <b>2019</b> , 29, 410-417	2.8	4
43	Fast bound pool fraction mapping via steady-state magnetization transfer saturation using single-shot EPI. <i>Magnetic Resonance in Medicine</i> , <b>2019</b> , 82, 1025-1040	4.4	3
42	White matter integrity correlates with cognition and disease severity in Fabry disease. <i>Brain</i> , <b>2020</b> , 143, 3331-3342	11.2	3

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41	Sulcal and gyral crown cortical grey matter involvement in multiple sclerosis: A magnetisation transfer ratio study. <i>Multiple Sclerosis and Related Disorders</i> , <b>2013</b> , 2, 204-12	4	3
40	Neurodegenerative dementias: From MR Physics lab to assessment room. <i>European Physical Journal Plus</i> , <b>2012</b> , 127, 1	3.1	3
39	SODIUM ACCUMULATION IS ASSOCIATED WITH DISABILITY AND PROGRESSION IN MULTIPLE SCLEROSIS: A 23NA MRI STUDY. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2013</b> , 84, e2.144-e2	5.5	3
38	LOBAR DISTRIBUTION OF CORTICAL GREY MATTER LESIONS IN MULTIPLE SCLEROSIS CLINICAL SUBGROUPS. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2013</b> , 84, e2.99-e2	5.5	3
37	Burst imaging: rotation artifacts and how to correct them. <i>Journal of Magnetic Resonance</i> , <b>2000</b> , 143, 161-71	3	3
36	Grey and White Matter Magnetisation Transfer Ratio Measurements in the Lumbosacral Enlargement: A Pilot In Vivo Study at 3T. <i>PLoS ONE</i> , <b>2015</b> , 10, e0134495	3.7	3
35	Medical Informatics Platform (MIP): A Pilot Study Across Clinical Italian Cohorts. <i>Frontiers in Neurology</i> , <b>2020</b> , 11, 1021	4.1	3
34	Belect and retrieve via direct upsampling the twork (SARDU-Net): a data-driven, model-free, deep learning approach for quantitative MRI protocol design		3
33	Motor and higher-order functions topography of the human dentate nuclei identified with tractography and clustering methods. <i>Human Brain Mapping</i> , <b>2021</b> , 42, 4348-4361	5.9	3
32	Association of Slowly Expanding Lesions on MRI With Disability in People With Secondary Progressive Multiple Sclerosis <i>Neurology</i> , <b>2022</b> ,	6.5	3
31	Disrupted principal network organisation in multiple sclerosis relates to disability. <i>Scientific Reports</i> , <b>2020</b> , 10, 3620	4.9	2
30	ADvanced IMage Algebra (ADIMA): a novel method for depicting multiple sclerosis lesion heterogeneity, as demonstrated by quantitative MRI. <i>Multiple Sclerosis Journal</i> , <b>2013</b> , 19, 732-41	5	2
29	Spatial patterns of brain lesions assessed through covariance estimations of lesional voxels in multiple Sclerosis: The SPACE-MS technique. <i>NeuroImage: Clinical</i> , <b>2021</b> , 33, 102904	5.3	2
28	In-vivo estimates of axonal characteristics using optimized diffusion MRI protocols for single fibre orientation. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 13, 623-30	0.9	2
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26	Comparison of Neurite Orientation Dispersion and Density Imaging and Two-Compartment Spherical Mean Technique Parameter Maps in Multiple Sclerosis. <i>Frontiers in Neurology</i> , <b>2021</b> , 12, 66285	5 <b>4</b> .1	2
25	Fully Automated Patch-Based Image Restoration: Application to Pathology Inpainting. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 3-15	0.9	2
24	Deep Learning Model Fitting for Diffusion-Relaxometry: A Comparative Study. <i>Mathematics and Visualization</i> , <b>2021</b> , 159-172	0.6	2

23	Lung Ultrasound Segmentation and Adaptation Between COVID-19 and Community-Acquired Pneumonia. <i>Lecture Notes in Computer Science</i> , <b>2021</b> , 45-53	0.9	2
22	Early cortical and late striatal diffusion restriction on 3T MRI in a long-lived sporadic creutzfeldt-jakob disease case. <i>Journal of Magnetic Resonance Imaging</i> , <b>2019</b> , 50, 1659-1662	5.6	1
21	Ranking diffusion-MRI models with in-vivo human brain data <b>2013</b> ,		1
20	Unsuspected involvement of spinal cord in Alzheimer Disease		1
19	Frontal and Cerebellar Atrophy Supports FTSD-ALS Clinical Continuum. <i>Frontiers in Aging Neuroscience</i> , <b>2020</b> , 12, 593526	5.3	1
18	Predicting disability progression and cognitive worsening in multiple sclerosis using patterns of grey matter volumes. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2021</b> , 92, 995-1006	5.5	1
17	Quantification of Cervical Cord Cross-Sectional Area: Which Acquisition, Vertebra Level, and Analysis Software? A Multicenter Repeatability Study on a Traveling Healthy Volunteer. <i>Frontiers in Neurology</i> , <b>2021</b> , 12, 693333	4.1	1
16	Thalamocortical Connectivity in Experimentally-Induced Migraine Attacks: A Pilot Study. <i>Brain Sciences</i> , <b>2021</b> , 11,	3.4	1
15	Translating pH-sensitive PROgressive saturation for QUantifying Exchange rates using Saturation Times (PRO-QUEST) MRI to a 3T clinical scanner. <i>Magnetic Resonance in Medicine</i> , <b>2020</b> , 84, 1734-1746	4.4	O
14	Assessing Lumbar Plexus and Sciatic Nerve Damage in Relapsing-Remitting Multiple Sclerosis Using Magnetisation Transfer Ratio <i>Frontiers in Neurology</i> , <b>2021</b> , 12, 763143	4.1	O
13	Blood Oxygenation Level-Dependent Response to Multiple Grip Forces in Multiple Sclerosis: Going Beyond the Main Effect of Movement in Brodmann Area 4a and 4p. <i>Frontiers in Cellular Neuroscience</i> , <b>2021</b> , 15, 616028	6.1	0
12	Automatic Segmentation of Dentate Nuclei for Microstructure Assessment: Example of Application to Temporal Lobe Epilepsy Patients. <i>Mathematics and Visualization</i> , <b>2021</b> , 263-278	0.6	О
11	Tracking White and Gray Matter Degeneration along the Spinal Cord Axis in Degenerative Cervical Myelopathy. <i>Journal of Neurotrauma</i> , <b>2021</b> , 38, 2978-2987	5.4	О
10	MAGNIMS recommendations for harmonization of MRI data in MS multicenter studies <i>NeuroImage: Clinical</i> , <b>2022</b> , 34, 102972	5.3	О
9	Quantitative MRI Harmonization to Maximize Clinical Impact: The RIN-Neuroimaging Network <i>Frontiers in Neurology</i> , <b>2022</b> , 13, 855125	4.1	O
8	Spatial Characterisation of Fibre Response Functions for Spherical Deconvolution in Multiple Sclerosis. <i>Mathematics and Visualization</i> , <b>2019</b> , 265-279	0.6	
7	THE MS-SMART TRIAL IN SECONDARY PROGRESSIVE MULTIPLE SCLEROSIS: A MULTI-ARM, MULTI-CENTRE TRIAL OF NEUROPROTECTION. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2015</b> , 86, e4.8-e4	5.5	
6	SPINAL CORD GLUTAMATE-GLUTAMINE IS ELEVATED IN MS RELAPSE. Journal of Neurology, Neurosurgery and Psychiatry, <b>2014</b> , 85, e4.30-e4	5.5	

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5	NETWORK EFFICIENCY AND COGNITIVE DEFICITS IN MS. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2014</b> , 85, e4.48-e4	5.5
4	Poster #55 CORTICAL THINNING OVER TWO YEARS FOLLOWING THE FIRST EPISODE OF PSYCHOSIS: RELATIONSHIP TO TREATMENT DURATION AND COGNITIVE IMPAIRMENT. <i>Schizophrenia Research</i> , <b>2012</b> , 136, S205	3.6
3	Physiological MR of the spine853-863	
2	128 Quantification of glutamate in the grey matter and its relationship with cognitive performance in multiple sclerosis. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2012</b> , 83, e1.80-e1	5.5
1	Author response: Increased resting cerebral blood flow in adult Fabry disease: MRI arterial spin labeling study. <i>Neurology</i> , <b>2018</b> , 91, 1072	6.5