Yaniv Assaf

List of Publications by Citations

83 papers	6,816 citations	36 h-index	82 g-index
96 ext. papers	7,957 ext. citations	6 avg, IF	6.16 L-index

#	Paper	IF	Citations
83	Diffusion tensor imaging (DTI)-based white matter mapping in brain research: a review. *Journal of Molecular Neuroscience*, **2008**, 34, 51-61	3.3	1012
82	AxCaliber: a method for measuring axon diameter distribution from diffusion MRI. *Magnetic Resonance in Medicine*, **2008**, 59, 1347-54	4.4	654
81	Composite hindered and restricted model of diffusion (CHARMED) MR imaging of the human brain. *NeuroImage*, **2005**, 27, 48-58	7.9	608
80	New modeling and experimental framework to characterize hindered and restricted water diffusion in brain white matter. *Magnetic Resonance in Medicine*, **2004**, 52, 965-78	4.4	415
79	Sex beyond the genitalia: The human brain mosaic. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 15468-73	11.5	335
78	Learning in the fast lane: new insights into neuroplasticity. *Neuron*, **2012**, 73, 1195-203	13.9	325
77	In vivo measurement of axon diameter distribution in the corpus callosum of rat brain. *Brain*, **2009**, 132, 1210-20	11.2	310
76	High b-value q-space analyzed diffusion-weighted MRS and MRI in neuronal tissues - a technical review. *NMR in Biomedicine*, **2002**, 15, 516-42	4.4	229
75	Diffusion MRI of structural brain plasticity induced by a learning and memory task. *PLoS ONE*, **2011**, 6, e20678	3.7	205
74	Characterization of displaced white matter by brain tumors using combined DTI and fMRI. *NeuroImage*, **2006**, 30, 1100-11	7.9	196
73	Why diffusion tensor MRI does well only some of the time: variance and covariance of white matter tissue microstructure attributes in the living human brain. *NeuroImage*, **2014**, 89, 35-44	7.9	154
72	Assessing white matter microstructure of the newborn with multi-shell diffusion MRI and biophysical compartment models. *NeuroImage*, **2014**, 96, 288-99	7.9	123
71	Short-term learning induces white matter plasticity in the fornix. *Journal of Neuroscience*, **2013**, 33, 12844-50	6.6	122
70	Clozapine administration in adolescence prevents postpubertal emergence of brain structural pathology in an animal model of schizophrenia. *Biological Psychiatry*, **2009**, 66, 1038-46	7.9	117
69	Dynamic changes in the recovery after traumatic brain injury in mice: effect of injury severity on T2-weighted MRI abnormalities, and motor and cognitive functions. *Journal of Neurotrauma*, **2008**, 25, 324-33	5.4	110
68	In vivo correlation between axon diameter and conduction velocity in the human brain. *Brain Structure and Function*, **2015**, 220, 1777-88	4	93
67	The CONNECT project: Combining macro- and micro-structure. *NeuroImage*, **2013**, 80, 273-82	7.9	93

66	Cluster analysis of resting-state fMRI time series. *NeuroImage*, **2009**, 45, 1117-25	7.9	88
65	NAP (davunetide) modifies disease progression in a mouse model of severe neurodegeneration: protection against impairments in axonal transport. *Neurobiology of Disease*, **2013**, 56, 79-94	7.5	79
64	Delineating gray and white matter involvement in brain lesions: three-dimensional alignment of functional magnetic resonance and diffusion-tensor imaging. *Journal of Neurosurgery*, **2003**, 99, 1018-27	3.2	77
63	Diffusion- and T2-weighted MRI of closed-head injury in rats: a time course study and correlation with histology. *Magnetic Resonance Imaging*, **1997**, 15, 77-85	3.3	75
62	Structural correlates of cognitive domains in normal aging with diffusion tensor imaging. *Brain Structure and Function*, **2012**, 217, 503-15	4	72
61	Diffusion and perfusion magnetic resonance imaging following closed head injury in rats. *Journal of Neurotrauma*, **1999**, 16, 1165-76	5.4	61
60	Separate parts of occipito-temporal white matter fibers are associated with recognition of faces and places. *NeuroImage*, **2014**, 86, 123-30	7.9	59
59	White matter changes in multiple sclerosis: correlation of q-space diffusion MRI and 1H MRS. *Magnetic Resonance Imaging*, **2005**, 23, 703-10	3.3	56
58	Motion correction and registration of high b-value diffusion weighted images. *Magnetic Resonance in Medicine*, **2012**, 67, 1694-702	4.4	55
57	The role of diffusion MRI in neuroscience. *NMR in Biomedicine*, **2019**, 32, e3762	4.4	55
56	A mouse model for eukaryotic translation initiation factor 2B-leucodystrophy reveals abnormal development of brain white matter. *Brain*, **2010**, 133, 2448-61	11.2	54
55	Sleep-anticipating effects of melatonin in the human brain. *NeuroImage*, **2006**, 31, 410-8	7.9	51
54	Micro-structural assessment of short term plasticity dynamics. *NeuroImage*, **2013**, 81, 1-7	7.9	46
53	Resolving relaxometry and diffusion properties within the same voxel in the presence of crossing fibres by combining inversion recovery and diffusion-weighted acquisitions. *Magnetic Resonance in Medicine*, **2016**, 75, 372-80	4.4	45
52	Rapid language-related plasticity: microstructural changes in the cortex after a short session of new word learning. *Brain Structure and Function*, **2017**, 222, 1231-1241	4	40
51	Visualization of cortical lamination patterns with magnetic resonance imaging. *Cerebral Cortex*, **2012**, 22, 2016-23	5.1	40
50	Mapping apparent eccentricity and residual ensemble anisotropy in the gray matter using angular double-pulsed-field-gradient MRI. *Magnetic Resonance in Medicine*, **2012**, 68, 794-806	4.4	39
49	Structural correlates of memory performance with diffusion tensor imaging. *NeuroImage*, **2010**, 50, 1231-42	7.9	39

48	T1 relaxometry of crossing fibres in the human brain. *NeuroImage*, **2016**, 141, 133-142	7.9	38
47	Variational multiple-tensor fitting of fiber-ambiguous diffusion-weighted magnetic resonance imaging voxels. *Magnetic Resonance Imaging*, **2008**, 26, 1133-44	3.3	36
46	Chronic cholinergic imbalances promote brain diffusion and transport abnormalities. *FASEB Journal* , **2005**, 19, 910-22	0.9	33
45	Can we use diffusion MRI as a bio-marker of neurodegenerative processes?. *BioEssays*, **2008**, 30, 1235-45	4.1	31
44	Hypertension and neuronal degeneration in excised rat spinal cord studied by high-b value q-space diffusion magnetic resonance imaging. *Experimental Neurology*, **2003**, 184, 726-36	5.7	31
43	Neurodegeneration of lateral habenula efferent fibers after intermittent cocaine administration: implications for deep brain stimulation. *Neuropharmacology*, **2013**, 75, 246-54	5.5	29
42	MRI evidence of white matter damage in a mouse model of Nijmegen breakage syndrome. *Experimental Neurology*, **2008**, 209, 181-91	5.7	29
41	Detection of different water populations in brain tissue using 2H single- and double-quantum-filtered diffusion NMR spectroscopy. *Journal of Magnetic Resonance Series B*, **1996** , 112, 151-9		29
40	Imaging laminar structures in the gray matter with diffusion MRI. *NeuroImage*, **2019**, 197, 677-688	7.9	29
39	High b-value diffusion imaging of dementia: application to vascular dementia and alzheimer disease. *Journal of the Neurological Sciences*, **2007**, 257, 105-13	3.2	27
38	Regional axonal abnormalities in first episode schizophrenia: preliminary evidence based on high b-value diffusion-weighted imaging. *Psychiatry Research - Neuroimaging*, **2006**, 146, 223-9	2.9	25
37	Using the biophysical CHARMED model to elucidate the underpinnings of contrast in diffusional kurtosis analysis of diffusion-weighted MRI. *Magnetic Resonance Materials in Physics, Biology, and Medicine*, **2012**, 25, 267-76	2.8	24
36	Conservation of brain connectivity and wiring across the mammalian class. *Nature Neuroscience*, **2020**, 23, 805-808	25.5	22
35	High-level gait disorder: associations with specific white matter changes observed on advanced diffusion imaging. *Journal of Neuroimaging*, **2013**, 23, 39-46	2.8	22
34	Neurodegeneration in thiamine deficient rats-A longitudinal MRI study. *Brain Research*, **2010**, 1308, 176-84	3.7	21
33	In vivo observation of anisotropic motion of brain water using 2H double quantum filtered NMR spectroscopy. *Magnetic Resonance in Medicine*, **1997**, 37, 197-203	4.4	20
32	Mammillothalamic Disconnection Alters Hippocampocortical Oscillatory Activity and Microstructure: Implications for Diencephalic Amnesia. *Journal of Neuroscience*, **2019**, 39, 6696-6713	6.6	20
31	Combinatorial fiber-tracking of the human brain. *NeuroImage*, **2009**, 48, 532-40	7.9	19

30	Virtual definition of neuronal tissue by cluster analysis of multi-parametric imaging (virtual-dot-com imaging). *NeuroImage*, **2007**, 35, 58-69	7.9	18
29	Short-term plasticity following motor sequence learning revealed by diffusion magnetic resonance imaging. *Human Brain Mapping*, **2020**, 41, 442-452	5.9	18
28	The combined treatment of Copaxone and Salirasib attenuates experimental autoimmune encephalomyelitis (EAE) in mice. *Journal of Neuroimmunology*, **2010**, 229, 192-203	3.5	17
27	The rapid development of structural plasticity through short water maze training: A DTI study. *NeuroImage*, **2017**, 155, 202-208	7.9	16
26	Clinical benefits of diffusion tensor imaging in hydrocephalus. *Journal of Neurosurgery: Pediatrics*, **2015**, 16, 195-202	2.1	16
25	Structural changes in glutamate cell swelling followed by multiparametric q-space diffusion MR of excised rat spinal cord. *Magnetic Resonance Imaging*, **2004**, 22, 661-72	3.3	13
24	Susceptibility-matched envelope for the correction of EPI artifacts. *Magnetic Resonance Imaging*, **2005**, 23, 947-51	3.3	12
23	Resolution considerations in imaging of the cortical layers. *NeuroImage*, **2018**, 164, 112-120	7.9	9
22	Response to the comments on the paper by Horowitz et al. (2014). *Brain Structure and Function*, **2015**, 220, 1791-2	4	8
21	Brain structure changes induced by attention bias modification training. *Biological Psychology*, **2019** , 146, 107736	3.2	8
20	Brain volumetric changes in the general population following the COVID-19 outbreak and lockdown. *NeuroImage*, **2021**, 239, 118311	7.9	8
19	Motor deficits and neurofibromatosis type 1 (NF1)-associated MRI impairments in a mouse model of NF1. *NMR in Biomedicine*, **2010**, 23, 1173-80	4.4	7
18	Tremor Relief and Structural Integrity after MRI-guided Focused US Thalamotomy in Tremor Disorders. *Radiology*, **2020**, 294, 676-685	20.5	6
17	A framework for cortical laminar composition analysis using low-resolution T1 MRI images. *Brain Structure and Function*, **2019**, 224, 1457-1467	4	5
16	Single Cortical Microinfarcts Lead to Widespread Microglia/Macrophage Migration Along the White Matter. *Cerebral Cortex*, **2021**, 31, 248-266	5.1	5
15	Selective atrophy of the connected deepest cortical layers following small subcortical infarct. *Neurology*, **2019**, 92, e567-e575	6.5	4
14	New dimensions for brain mapping. *Science*, **2018**, 362, 994-995	33.3	4
13	Assault-related self-blame and its association with PTSD in sexually assaulted women: an MRI inquiry. *Social Cognitive and Affective Neuroscience*, **2018**, 13, 775-784	4	4

12	Inner Hemispheric and Interhemispheric Connectivity Balance in the Human Brain. *Journal of Neuroscience*, **2021**, 41, 8351-8361	6.6	4
11	Deviation of Fiber Tracts in the Vicinity of Brain Lesions: Evaluation by Diffusion Tensor Imaging. *Israel Journal of Chemistry*, **2010**, 43, 155-163	3.4	3
10	Regenerating the Injured Spinal Cord at the Chronic Phase by Engineered iPSCs-Derived 3D Neuronal Networks.. *Advanced Science*, **2022**, e2105694	13.6	3
9	Widespread cortical dyslamination in epilepsy patients with malformations of cortical development. *Neuroradiology*, **2021**, 63, 225-234	3.2	3
8	The use of MEMRI for monitoring central nervous system activity during intact insect walking. *Journal of Insect Physiology*, **2018**, 108, 48-53	2.4	3
7	An MRI-Based, Data-Driven Model of Cortical Laminar Connectivity. *Neuroinformatics*, **2021**, 19, 205-218	3.2	2
6	Combined neuroimaging and gene expression analysis of the genetic basis of brain plasticity indicates across species homology. *Human Brain Mapping*, **2014**, 35, 5888-902	5.9	1
5	3D virtual reconstruction and quantitative assessment of the human intervertebral disc's annulus fibrosus: a DTI tractography study. *Scientific Reports*, **2021**, 11, 6815	4.9	1
4	Macro- and microstructural gray matter alterations in sexually assaulted women. *Journal of Affective Disorders*, **2020**, 262, 196-204	6.6	0
3	Modelling Cortical Laminar Connectivity in the Macaque Brain. *Neuroinformatics*, **2021**, 1	3.2	0
2	"Does attention bias modification induce structural brain changes? A commentary on Abend et al. (2019)" - Response. *Biological Psychology*, **2020**, 152, 107865	3.2	
1	Chronic cholinergic imbalances promote brain diffusion and transport abnormalities. *FASEB Journal* , **2006**, 20, 2425-2425	0.9	