

# Ferran Prados Carrasco

## List of Publications by Year in descending order

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Version: 2024-02-01

111  
papers

3,484  
citations

201385

27  
h-index

174990

52  
g-index

124  
all docs

124  
docs citations

124  
times ranked

4538  
citing authors

#	ARTICLE	IF	CITATIONS
1	Deep gray matter volume loss drives disability worsening in multiple sclerosis. <i>Annals of Neurology</i> , 2018, 83, 210-222.	2.8	295
2	Progression of regional grey matter atrophy in multiple sclerosis. <i>Brain</i> , 2018, 141, 1665-1677.	3.7	269
3	Longitudinal multiple sclerosis lesion segmentation: Resource and challenge. <i>NeuroImage</i> , 2017, 148, 77-102.	2.1	215
4	Wallerian Degeneration in the Corticospinal Tract Evaluated by Diffusion Tensor Imaging Correlates with Motor Deficit 30 Days after Middle Cerebral Artery Ischemic Stroke. <i>American Journal of Neuroradiology</i> , 2010, 31, 1324-1330.	1.2	167
5	Automatic segmentation of the spinal cord and intramedullary multiple sclerosis lesions with convolutional neural networks. <i>NeuroImage</i> , 2019, 184, 901-915.	2.1	163
6	Acute Damage to the Posterior Limb of the Internal Capsule on Diffusion Tensor Tractography as an Early Imaging Predictor of Motor Outcome after Stroke. <i>American Journal of Neuroradiology</i> , 2011, 32, 857-863.	1.2	151
7	Early imaging predictors of long-term outcomes in relapse-onset multiple sclerosis. <i>Brain</i> , 2019, 142, 2276-2287.	3.7	113
8	Identifying multiple sclerosis subtypes using unsupervised machine learning and MRI data. <i>Nature Communications</i> , 2021, 12, 2078.	5.8	112
9	Spinal cord grey matter segmentation challenge. <i>NeuroImage</i> , 2017, 152, 312-329.	2.1	97
10	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</i> , The, 2020, 19, 214-225.	4.9	81
11	Spatial distribution of multiple sclerosis lesions in the cervical spinal cord. <i>Brain</i> , 2019, 142, 633-646.	3.7	75
12	A multi-time-point modality-agnostic patch-based method for lesion filling in multiple sclerosis. <i>NeuroImage</i> , 2016, 139, 376-384.	2.1	74
13	Value of the central vein sign at 3T to differentiate MS from seropositive NMOSD. <i>Neurology</i> , 2018, 90, e1183-e1190.	1.5	71
14	Association of Piriform Cortex Resection With Surgical Outcomes in Patients With Temporal Lobe Epilepsy. <i>JAMA Neurology</i> , 2019, 76, 690.	4.5	69
15	A 30-Year Clinical and Magnetic Resonance Imaging Observational Study of Multiple Sclerosis and Clinically Isolated Syndromes. <i>Annals of Neurology</i> , 2020, 87, 63-74.	2.8	67
16	Generic acquisition protocol for quantitative MRI of the spinal cord. <i>Nature Protocols</i> , 2021, 16, 4611-4632.	5.5	65
17	An abnormal periventricular magnetization transfer ratio gradient occurs early in multiple sclerosis. <i>Brain</i> , 2017, 140, 387-398.	3.7	62
18	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> , 2016, 87, 1212-1217.	0.9	53

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19	Reduced neurite density in the brain and cervical spinal cord in relapsing-remitting multiple sclerosis: A NODDI study. <i>Multiple Sclerosis Journal</i> , 2020, 26, 1647-1657.	1.4	48
20	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</i> , The, 2021, 20, 709-720.	4.9	44
21	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> , 2018, 8, e021944.	0.8	43
22	In vivo imaging of chronic active lesions in multiple sclerosis. <i>Multiple Sclerosis Journal</i> , 2022, 28, 683-690.	1.4	42
23	Efficacy and safety of temelimab in multiple sclerosis: Results of a randomized phase 2b and extension study. <i>Multiple Sclerosis Journal</i> , 2022, 28, 429-440.	1.4	40
24	Spinal cord atrophy as a primary outcome measure in phase II trials of progressive multiple sclerosis. <i>Multiple Sclerosis Journal</i> , 2018, 24, 932-941.	1.4	37
25	Structural network disruption markers explain disability in multiple sclerosis. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , 2019, 90, 219-226.	0.9	37
26	Fully automated grey and white matter spinal cord segmentation. <i>Scientific Reports</i> , 2016, 6, 36151.	1.6	34
27	The quantitative neuroradiology initiative framework: application to dementia. <i>British Journal of Radiology</i> , 2019, 92, 20190365.	1.0	32
28	Longitudinal spinal cord atrophy in multiple sclerosis using the generalized boundary shift integral. <i>Annals of Neurology</i> , 2019, 86, 704-713.	2.8	32
29	Association of Slowly Expanding Lesions on MRI With Disability in People With Secondary Progressive Multiple Sclerosis. <i>Neurology</i> , 2022, 98, .	1.5	31
30	Diffusion-Weighted Imaging: Recent Advances and Applications. <i>Seminars in Ultrasound, CT and MRI</i> , 2021, 42, 490-506.	0.7	30
31	Relevance of time-dependence for clinically viable diffusion imaging of the spinal cord. <i>Magnetic Resonance in Medicine</i> , 2019, 81, 1247-1264.	1.9	29
32	Applying causal models to explore the mechanism of action of simvastatin in progressive multiple sclerosis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 11020-11027.	3.3	28
33	Open-access quantitative MRI data of the spinal cord and reproducibility across participants, sites and manufacturers. <i>Scientific Data</i> , 2021, 8, 219.	2.4	27
34	Hippocampal profiling: Localized magnetic resonance imaging volumetry and T2 relaxometry for hippocampal sclerosis. <i>Epilepsia</i> , 2020, 61, 297-309.	2.6	26
35	A web-based e-learning tool for UML class diagrams. , 2010, , .		25
36	Bullseye's representation of cerebral white matter hyperintensities. <i>Journal of Neuroradiology</i> , 2018, 45, 114-122.	0.6	25

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37	Measuring brain atrophy with a generalized formulation of the boundary shift integral. <i>Neurobiology of Aging</i> , 2015, 36, S81-S90.	1.5	24
38	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> , 2019, 90, 755-760.	0.9	24
39	Brain microstructural and metabolic alterations detected <i>in vivo</i> at onset of the first demyelinating event. <i>Brain</i> , 2021, 144, 1409-1421.	3.7	24
40	Cortical involvement determines impairment 30 years after a clinically isolated syndrome. <i>Brain</i> , 2021, 144, 1384-1395.	3.7	24
41	Analysis of new diffusion tensor imaging anisotropy measures in the three-phase plot. <i>Journal of Magnetic Resonance Imaging</i> , 2010, 31, 1435-1444.	1.9	20
42	Fast and reproducible <i>in vivo</i> T <sub>1</sub> mapping of the human cervical spinal cord. <i>Magnetic Resonance in Medicine</i> , 2018, 79, 2142-2148.	1.9	20
43	Structural cortical network reorganization associated with early conversion to multiple sclerosis. <i>Scientific Reports</i> , 2018, 8, 10715.	1.6	19
44	Automated quantitative MRI volumetry reports support diagnostic interpretation in dementia: a multi-rater, clinical accuracy study. <i>European Radiology</i> , 2021, 31, 5312-5323.	2.3	19
45	Regional grey matter microstructural changes and volume loss according to disease duration in multiple sclerosis patients. <i>Scientific Reports</i> , 2021, 11, 16805.	1.6	17
46	Slowly expanding lesions relate to persisting black-holes and clinical outcomes in relapse-onset multiple sclerosis. <i>NeuroImage: Clinical</i> , 2022, 35, 103048.	1.4	17
47	An optimized framework for quantitative magnetization transfer imaging of the cervical spinal cord <i>in vivo</i> . <i>Magnetic Resonance in Medicine</i> , 2018, 79, 2576-2588.	1.9	15
48	Generalised boundary shift integral for longitudinal assessment of spinal cord atrophy. <i>NeuroImage</i> , 2020, 209, 116489.	2.1	15
49	Vessel-CAPTCHA: An efficient learning framework for vessel annotation and segmentation. <i>Medical Image Analysis</i> , 2022, 75, 102263.	7.0	15
50	Clinical relevance of cortical network dynamics in early primary progressive MS. <i>Multiple Sclerosis Journal</i> , 2020, 26, 442-456.	1.4	14
51	A multi-shell multi-tissue diffusion study of brain connectivity in early multiple sclerosis. <i>Multiple Sclerosis Journal</i> , 2020, 26, 774-785.	1.4	13
52	Spinal cord atrophy in a primary progressive multiple sclerosis trial: Improved sample size using GBSI. <i>NeuroImage: Clinical</i> , 2020, 28, 102418.	1.4	13
53	Immersive Technologies in Higher Education. , 2019, , .		13
54	A teaching/learning support tool for introductory programming courses. , 0, , .		12

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55	A magnetic resonance multi-atlas for the neonatal rabbit brain. <i>NeuroImage</i> , 2018, 179, 187-198.	2.1	12
56	High-dimensional detection of imaging response to treatment in multiple sclerosis. <i>Npj Digital Medicine</i> , 2019, 2, 49.	5.7	12
57	White matter integrity correlates with cognition and disease severity in Fabry disease. <i>Brain</i> , 2020, 143, 3331-3342.	3.7	12
58	Comparison of Neurite Orientation Dispersion and Density Imaging and Two-Compartment Spherical Mean Technique Parameter Maps in Multiple Sclerosis. <i>Frontiers in Neurology</i> , 2021, 12, 662855.	1.1	12
59	Volumetric reconstruction from printed films: Enabling 30 year longitudinal analysis in MR neuroimaging. <i>NeuroImage</i> , 2018, 165, 238-250.	2.1	11
60	Magnetisation transfer ratio abnormalities in primary and secondary progressive multiple sclerosis. <i>Multiple Sclerosis Journal</i> , 2020, 26, 679-687.	1.4	11
61	Characterization of multiple sclerosis lesions with distinct clinical correlates through quantitative diffusion MRI. <i>NeuroImage: Clinical</i> , 2020, 28, 102411.	1.4	11
62	Ongoing microstructural changes in the cervical cord underpin disability progression in early primary progressive multiple sclerosis. <i>Multiple Sclerosis Journal</i> , 2021, 27, 28-38.	1.4	11
63	Clinical evaluation of automated quantitative MRI reports for assessment of hippocampal sclerosis. <i>European Radiology</i> , 2021, 31, 34-44.	2.3	11
64	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> , 2016, 11, e0164890.	1.1	11
65	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> , 2020, 7, 1-72.	0.9	11
66	MAGNIMS recommendations for harmonization of MRI data in MS multicenter studies. <i>NeuroImage: Clinical</i> , 2022, 34, 102972.	1.4	11
67	Challenges and Perspectives of Quantitative Functional Sodium Imaging (fNaI). <i>Frontiers in Neuroscience</i> , 2018, 12, 810.	1.4	10
68	Modified connectivity of vulnerable brain nodes in multiple sclerosis, their impact on cognition and their discriminative value. <i>Scientific Reports</i> , 2019, 9, 20172.	1.6	10
69	Single-subject structural cortical networks in clinically isolated syndrome. <i>Multiple Sclerosis Journal</i> , 2020, 26, 1392-1401.	1.4	10
70	NAA is a Marker of Disability in Secondary-Progressive MS: A Proton MR Spectroscopic Imaging Study. <i>American Journal of Neuroradiology</i> , 2020, 41, 2209-2218.	1.2	10
71	Applying multilayer analysis to morphological, structural, and functional brain networks to identify relevant dysfunction patterns. <i>Network Neuroscience</i> , 2022, 6, 916-933.	1.4	10
72	Linear brain atrophy measures in multiple sclerosis and clinically isolated syndromes: a 30-year follow-up. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , 2021, 92, 839-846.	0.9	9

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73	The Open-Access European Prevention of Alzheimer's Dementia (EPAD) MRI dataset and processing workflow. <i>NeuroImage: Clinical</i> , 2022, 35, 103106.	1.4	9
74	Fast bound pool fraction mapping via steady-state magnetization transfer saturation using single-shot EPI. <i>Magnetic Resonance in Medicine</i> , 2019, 82, 1025-1040.	1.9	8
75	Sodium in the Relapsing-Remitting Multiple Sclerosis Spinal Cord: Increased Concentrations and Associations With Microstructural Tissue Anisotropy. <i>Journal of Magnetic Resonance Imaging</i> , 2020, 52, 1429-1438.	1.9	8
76	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> , 2021, 12, 693333.	1.1	8
77	Image quality assessment for closed-loop computer-assisted lung ultrasound. , 2021, , .		7
78	A Modality-Agnostic Patch-Based Technique for Lesion Filling in Multiple Sclerosis. <i>Lecture Notes in Computer Science</i> , 2014, 17, 781-788.	1.0	7
79	An Automatic Correction Tool For Relational Database Schemas. , 0, , .		6
80	Spinal cord atrophy rates. <i>Neurology</i> , 2018, 91, 157-158.	1.5	6
81	Periventricular magnetisation transfer ratio abnormalities in multiple sclerosis improve after alemtuzumab. <i>Multiple Sclerosis Journal</i> , 2020, 26, 1093-1101.	1.4	6
82	Comorbid amyloid $\beta$ pathology affects clinical and imaging features in VCD. <i>Alzheimer's and Dementia</i> , 2020, 16, 354-364.	0.4	6
83	Magnetisation transfer ratio combined with magnetic resonance neurography is feasible in the proximal lumbar plexus using healthy volunteers at 3T. <i>Scientific Reports</i> , 2020, 10, 14568.	1.6	6
84	FLAIR-only joint volumetric analysis of brain lesions and atrophy in clinically isolated syndrome (CIS) suggestive of multiple sclerosis. <i>NeuroImage: Clinical</i> , 2021, 29, 102542.	1.4	6
85	Assessing Lumbar Plexus and Sciatic Nerve Damage in Relapsing-Remitting Multiple Sclerosis Using Magnetisation Transfer Ratio. <i>Frontiers in Neurology</i> , 2021, 12, 763143.	1.1	6
86	On the role of metaheuristic optimization in bioinformatics. <i>International Transactions in Operational Research</i> , 2023, 30, 2909-2944.	1.8	6
87	Spatial patterns of brain lesions assessed through covariance estimations of lesional voxels in multiple Sclerosis: The SPACE-MS technique. <i>NeuroImage: Clinical</i> , 2022, 33, 102904.	1.4	5
88	An automatic correction tool that can learn. , 2011, , .		4
89	Diffusion tensor imaging, permanent pyramidal tract damage, and outcome in subcortical stroke. <i>Neurology</i> , 2011, 76, 1606-1607.	1.5	4
90	Visual Function and Brief Cognitive Assessment for Multiple Sclerosis in Optic Neuritis Clinically Isolated Syndrome Patients. <i>Journal of Neuro-Ophthalmology</i> , 2022, 42, e22-e31.	0.4	4

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91	A Formative Assessment Tool for Conceptual Database Design Using UML Class Diagram. International Journal of Emerging Technologies in Learning, 2010, 5, 27.	0.8	4
92	Comparison of multicenter <sc>MRI</sc> protocols for visualizing the spinal cord gray matter. Magnetic Resonance in Medicine, 2022, 88, 849-859.	1.9	4
93	DTIWeb: A Web-Based Framework for DTI Data Visualization and Processing. , 2007, , 727-740.		3
94	ACME: Plataforma de Aprendizaje Electrónico (e-learning) con Funcionalidades Deseables en el Ámbito de la Ingeniería. Formacion Universitaria, 2012, 5, 3-16.	0.2	3
95	Information-Theoretic Approach for Automated White Matter Fiber Tracts Reconstruction. Neuroinformatics, 2012, 10, 305-318.	1.5	2
96	Fully Automated Patch-Based Image Restoration: Application to Pathology Inpainting. Lecture Notes in Computer Science, 2016, , 3-15.	1.0	2
97	Improving the learning experience of business subjects in engineering studies using automatic spreadsheet correctors. Journal of Technology and Science Education, 2017, 7, 203.	0.5	2
98	Disrupted principal network organisation in multiple sclerosis relates to disability. Scientific Reports, 2020, 10, 3620.	1.6	2
99	A Monte Carlo-Based Fiber Tracking Algorithm using Diffusion Tensor MRI. , 2006, , .		1
100	Utilización de software de corrección automática en el campo de las ciencias de la salud. Education in the Knowledge Society, 2010, 11, 261-283.	2.0	1
101	Retinoid-X receptor agonism promotes remyelination in relapsing-remitting multiple sclerosis: a phase 2 clinical trial. Journal of Neurology, Neurosurgery and Psychiatry, 2022, 93, A92.3-A92.	0.9	1
102	Soluble MHC Class I chain-related molecule serum and follicular levels as predictive markers for IVF outcomes. Journal of Reproductive Immunology, 2009, 81, 145.	0.8	0
103	An automatic correction tool for inorganic chemical formulas. , 2010, , .		0
104	Longitudinal Analysis Framework of DWI Data for Reconstructing Structural Brain Networks with Application to Multiple Sclerosis. Mathematics and Visualization, 2018, , 205-218.	0.4	0
105	Edge and Properties in Multiple. Mathematics and Visualization, 2019, , 281-291.	0.4	0
106	Spatial Characterisation of Fibre Response Functions for Spherical Deconvolution in Multiple Sclerosis. Mathematics and Visualization, 2019, , 265-279.	0.4	0
107	Editorial for "MRI Findings of Arachnoiditis, Revisited. Is Classification Needed?" Journal of Magnetic Resonance Imaging, 2021, 54, 910-911.	1.9	0
108	Un Nuevo Enfoque para la Puntuación Automática de Problemas cuya Resolución se basa en Diagramas. Formacion Universitaria, 2017, 10, 47-60.	0.2	0

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109	Efficacy and Safety of Temelimab, an Antibody Antagonist of the Human Endogenous Retrovirus Type-W env Protein, in Participants with Relapsing Remitting Multiple Sclerosis: A Double-Blind, Randomised, Placebo-Controlled Phase 2b Clinical Trial. SSRN Electronic Journal, 0, , .	0.4	0
110	Der prädiktive Wert von Atrophie nach klinisch isoliertem Syndrom; Eine prospektive 30-jährige Studie. RoFo Fortschritte Auf Dem Gebiet Der Röntgenstrahlen Und Der Bildgebenden Verfahren, 2020, 192, .	0.7	0
111	Neuroimaging-derived phenotypes in the European Prevention of Alzheimer Dementia (EPAD) Cohort Study. Alzheimer's and Dementia, 2021, 17, .	0.4	0