Ferran Prados Carrasco

List of Publications by Year
in descending order

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	On the role of metaheuristic optimization in bioinformatics. International Transactions in Operational Research, 2023, 30, 2909-2944.	1.8	6
2	In vivo imaging of chronic active lesions in multiple sclerosis. Multiple Sclerosis Journal, 2022, 28, 683-690.	1.4	42
3	Efficacy and safety of temelimab in multiple sclerosis: Results of a randomized phase 2b and extension study. Multiple Sclerosis Journal, 2022, 28, 429-440.	1.4	40
4	Visual Function and Brief Cognitive Assessment for Multiple Sclerosis in Optic Neuritis Clinically Isolated Syndrome Patients. Journal of Neuro-Ophthalmology, 2022, 42, e22-e31.	0.4	4
5	Vessel-CAPTCHA: An efficient learning framework for vessel annotation and segmentation. Medical Image Analysis, 2022, 75, 102263.	7.0	15
6	Spatial patterns of brain lesions assessed through covariance estimations of lesional voxels in multiple Sclerosis: The SPACE-MS technique. NeuroImage: Clinical, 2022, 33, 102904.	1.4	5
7	MAGNIMS recommendations for harmonization of MRI data in MS multicenter studies. NeuroImage: Clinical, 2022, 34, 102972.	1.4	11
8	Association of Slowly Expanding Lesions on MRI With Disability in People With Secondary Progressive Multiple Sclerosis. Neurology, 2022, 98, .	1.5	31
9	Comparison of multicenter <scp>MRI</scp> protocols for visualizing the spinal cord gray matter. Magnetic Resonance in Medicine, 2022, 88, 849-859.	1.9	4
10	Slowly expanding lesions relate to persisting black-holes and clinical outcomes in relapse-onset multiple sclerosis. NeuroImage: Clinical, 2022, 35, 103048.	1.4	17
11	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
12	Applying multilayer analysis to morphological, structural, and functional brain networks to identify relevant dysfunction patterns. Network Neuroscience, 2022, 6, 916-933.	1.4	10
13	The Open-Access European Prevention of Alzheimer's Dementia (EPAD) MRI dataset and processing workflow. NeuroImage: Clinical, 2022, 35, 103106.	1.4	9
14	Ongoing microstructural changes in the cervical cord underpin disability progression in early primary progressive multiple sclerosis. Multiple Sclerosis Journal, 2021, 27, 28-38.	1.4	11
15	Clinical evaluation of automated quantitative MRI reports for assessment of hippocampal sclerosis. European Radiology, 2021, 31, 34-44.	2.3	11
16	FLAIR-only joint volumetric analysis of brain lesions and atrophy in clinically isolated syndrome (CIS) suggestive of multiple sclerosis. NeuroImage: Clinical, 2021, 29, 102542.	1.4	6
17	Automated quantitative MRI volumetry reports support diagnostic interpretation in dementia: a multi-rater, clinical accuracy study. European Radiology, 2021, 31, 5312-5323.	2.3	19
18	Image quality assessment for closed-loop computer-assisted lung ultrasound. , 2021, , .		7

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19	Linear brain atrophy measures in multiple sclerosis and clinically isolated syndromes: a 30-year follow-up. Journal of Neurology, Neurosurgery and Psychiatry, 2021, 92, 839-846.	0.9	9
20	Editorial for â€œ‹scp›MRI‹/scp› Findings of Arachnoiditis, Revisited. Is Classification Needed?â€∙ Journal of Magnetic Resonance Imaging, 2021, 54, 910-911.	1.9	0
21	Brain microstructural and metabolic alterations detected <i>in vivo</i> at onset of the first demyelinating event. Brain, 2021, 144, 1409-1421.	3.7	24
22	Identifying multiple sclerosis subtypes using unsupervised machine learning and MRI data. Nature Communications, 2021, 12, 2078.	5.8	112
23	Cortical involvement determines impairment 30 years after a clinically isolated syndrome. Brain, 2021, 144, 1384-1395.	3.7	24
24	Comparison of Neurite Orientation Dispersion and Density Imaging and Two-Compartment Spherical Mean Technique Parameter Maps in Multiple Sclerosis. Frontiers in Neurology, 2021, 12, 662855.	1.1	12
25	Regional grey matter microstructural changes and volume loss according to disease duration in multiple sclerosis patients. Scientific Reports, 2021, 11, 16805.	1.6	17
26	Open-access quantitative MRI data of the spinal cord and reproducibility across participants, sites and manufacturers. Scientific Data, 2021, 8, 219.	2.4	27
27	Quantification of Cervical Cord Cross-Sectional Area: Which Acquisition, Vertebra Level, and Analysis Software? A Multicenter Repeatability Study on a Traveling Healthy Volunteer. Frontiers in Neurology, 2021, 12, 693333.	1.1	8
28	Generic acquisition protocol for quantitative MRI of the spinal cord. Nature Protocols, 2021, 16, 4611-4632.	5.5	65
29	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. Lancet Neurology, The, 2021, 20, 709-720.	4.9	44
30	Diffusion-Weighted Imaging: Recent Advances and Applications. Seminars in Ultrasound, CT and MRI, 2021, 42, 490-506.	0.7	30
31	Assessing Lumbar Plexus and Sciatic Nerve Damage in Relapsing-Remitting Multiple Sclerosis Using Magnetisation Transfer Ratio. Frontiers in Neurology, 2021, 12, 763143.	1.1	6
32	Neuroimagingâ€derived phenotypes in the European Prevention of Alzheimer Dementia (EPAD) Cohort Study. Alzheimer's and Dementia, 2021, 17, .	0.4	0
33	Clinical relevance of cortical network dynamics in early primary progressive MS. Multiple Sclerosis Journal, 2020, 26, 442-456.	1.4	14
34	A multi-shell multi-tissue diffusion study of brain connectivity in early multiple sclerosis. Multiple Sclerosis Journal, 2020, 26, 774-785.	1.4	13
35	Periventricular magnetisation transfer ratio abnormalities in multiple sclerosis improve after alemtuzumab. Multiple Sclerosis Journal, 2020, 26, 1093-1101.	1.4	6
36	Magnetisation transfer ratio abnormalities in primary and secondary progressive multiple sclerosis. Multiple Sclerosis Journal, 2020, 26, 679-687.	1.4	11

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37	Single-subject structural cortical networks in clinically isolated syndrome. Multiple Sclerosis Journal, 2020, 26, 1392-1401.	1.4	10
38	Reduced neurite density in the brain and cervical spinal cord in relapsing–remitting multiple sclerosis: A NODDI study. Multiple Sclerosis Journal, 2020, 26, 1647-1657.	1.4	48
39	A 30‐Year Clinical and Magnetic Resonance Imaging Observational Study of Multiple Sclerosis and Clinically Isolated Syndromes. Annals of Neurology, 2020, 87, 63-74.	2.8	67
40	Generalised boundary shift integral for longitudinal assessment of spinal cord atrophy. NeuroImage, 2020, 209, 116489.	2.1	15
41	Comorbid amyloid‐β pathology affects clinical and imaging features in VCD. Alzheimer's and Dementia, 2020, 16, 354-364.	0.4	6
42	Hippocampal profiling: Localized magnetic resonance imaging volumetry and T2 relaxometry for hippocampal sclerosis. Epilepsia, 2020, 61, 297-309.	2.6	26
43	Characterization of multiple sclerosis lesions with distinct clinical correlates through quantitative diffusion MRI. NeuroImage: Clinical, 2020, 28, 102411.	1.4	11
44	Spinal cord atrophy in a primary progressive multiple sclerosis trial: Improved sample size using GBSI. NeuroImage: Clinical, 2020, 28, 102418.	1.4	13
45	Sodium in the Relapsing–Remitting Multiple Sclerosis Spinal Cord: Increased Concentrations and Associations With Microstructural Tissue Anisotropy. Journal of Magnetic Resonance Imaging, 2020, 52, 1429-1438.	1.9	8
46	NAA is a Marker of Disability in Secondary-Progressive MS: A Proton MR Spectroscopic Imaging Study. American Journal of Neuroradiology, 2020, 41, 2209-2218.	1.2	10
47	Magnetisation transfer ratio combined with magnetic resonance neurography is feasible in the proximal lumbar plexus using healthy volunteers at 3T. Scientific Reports, 2020, 10, 14568.	1.6	6
48	White matter integrity correlates with cognition and disease severity in Fabry disease. Brain, 2020, 143, 3331-3342.	3.7	12
49	Disrupted principal network organisation in multiple sclerosis relates to disability. Scientific Reports, 2020, 10, 3620.	1.6	2
50	Efficacy of three neuroprotective drugs in secondary progressive multiple sclerosis (MS-SMART): a phase 2b, multiarm, double-blind, randomised placebo-controlled trial. Lancet Neurology, The, 2020, 19, 214-225.	4.9	81
51	Amiloride, fluoxetine or riluzole to reduce brain volume loss in secondary progressive multiple sclerosis: the MS-SMART four-arm RCT. Efficacy and Mechanism Evaluation, 2020, 7, 1-72.	0.9	11
52	Der prädiktive Wert von Atrophie nach klinisch isoliertem Syndrom; Eine prospektive 30-jährige Studie. RoFo Fortschritte Auf Dem Gebiet Der Rontgenstrahlen Und Der Bildgebenden Verfahren, 2020, 192, .	0.7	0
53	The quantitative neuroradiology initiative framework: application to dementia. British Journal of Radiology, 2019, 92, 20190365.	1.0	32
54	Longitudinal spinal cord atrophy in multiple sclerosis using the generalized boundary shift integral. Annals of Neurology, 2019, 86, 704-713.	2.8	32

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55	Early imaging predictors of long-term outcomes in relapse-onset multiple sclerosis. Brain, 2019, 142, 2276-2287.	3.7	113
56	Spatial distribution of multiple sclerosis lesions in the cervical spinal cord. Brain, 2019, 142, 633-646.	3.7	75
57	High-dimensional detection of imaging response to treatment in multiple sclerosis. Npj Digital Medicine, 2019, 2, 49.	5.7	12
58	Edge and Properties in Multiple. Mathematics and Visualization, 2019, , 281-291.	0.4	0
59	Spatial Characterisation of Fibre Response Functions for Spherical Deconvolution in Multiple Sclerosis. Mathematics and Visualization, 2019, , 265-279.	0.4	0
60	Applying causal models to explore the mechanism of action of simvastatin in progressive multiple sclerosis. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11020-11027.	3.3	28
61	Fast bound pool fraction mapping via steady-state magnetization transfer saturation using single-shot EPI. Magnetic Resonance in Medicine, 2019, 82, 1025-1040.	1.9	8
62	Association of Piriform Cortex Resection With Surgical Outcomes in Patients With Temporal Lobe Epilepsy. JAMA Neurology, 2019, 76, 690.	4.5	69
63	Cortical grey matter sodium accumulation is associated with disability and secondary progressive disease course in relapse-onset multiple sclerosis. Journal of Neurology, Neurosurgery and Psychiatry, 2019, 90, 755-760.	0.9	24
64	Modified connectivity of vulnerable brain nodes in multiple sclerosis, their impact on cognition and their discriminative value. Scientific Reports, 2019, 9, 20172.	1.6	10
65	Relevance of time-dependence for clinically viable diffusion imaging of the spinal cord. Magnetic Resonance in Medicine, 2019, 81, 1247-1264.	1.9	29
66	Structural network disruption markers explain disability in multiple sclerosis. Journal of Neurology, Neurosurgery and Psychiatry, 2019, 90, 219-226.	0.9	37
67	Automatic segmentation of the spinal cord and intramedullary multiple sclerosis lesions with convolutional neural networks. NeuroImage, 2019, 184, 901-915.	2.1	163
68	Immersive Technologies in Higher Education. , 2019, , .		13
69	Value of the central vein sign at 3T to differentiate MS from seropositive NMOSD. Neurology, 2018, 90, e1183-e1190.	1.5	71
70	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
71	Deep gray matter volume loss drives disability worsening in multiple sclerosis. Annals of Neurology, 2018, 83, 210-222.	2.8	295
72	Spinal cord atrophy as a primary outcome measure in phase II trials of progressive multiple sclerosis. Multiple Sclerosis Journal, 2018, 24, 932-941.	1.4	37

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73	Volumetric reconstruction from printed films: Enabling 30 year longitudinal analysis in MR neuroimaging. NeuroImage, 2018, 165, 238-250.	2.1	11
74	An optimized framework for quantitative magnetization transfer imaging of the cervical spinal cord in vivo. Magnetic Resonance in Medicine, 2018, 79, 2576-2588.	1.9	15
75	Fast and reproducible in vivo T_1 mapping of the human cervical spinal cord. Magnetic Resonance in Medicine, 2018, 79, 2142-2148.	1.9	20
76	Bullseye's representation of cerebral white matter hyperintensities. Journal of Neuroradiology, 2018, 45, 114-122.	0.6	25
77	Challenges and Perspectives of Quantitative Functional Sodium Imaging (fNaI). Frontiers in Neuroscience, 2018, 12, 810.	1.4	10
78	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. BMJ Open, 2018, 8, e021944.	0.8	43
79	Progression of regional grey matter atrophy in multiple sclerosis. Brain, 2018, 141, 1665-1677.	3.7	269
80	Spinal cord atrophy rates. Neurology, 2018, 91, 157-158.	1.5	6
81	Structural cortical network reorganization associated with early conversion to multiple sclerosis. Scientific Reports, 2018, 8, 10715.	1.6	19
82	A magnetic resonance multi-atlas for the neonatal rabbit brain. NeuroImage, 2018, 179, 187-198.	2.1	12
83	Longitudinal multiple sclerosis lesion segmentation: Resource and challenge. NeuroImage, 2017, 148, 77-102.	2.1	215
84	Spinal cord grey matter segmentation challenge. NeuroImage, 2017, 152, 312-329.	2.1	97
85	An abnormal periventricular magnetization transfer ratio gradient occurs early in multiple sclerosis. Brain, 2017, 140, 387-398.	3.7	62
86	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
87	Un Nuevo Enfoque para la Puntuación Automática de Problemas cuya Resolución se basa en Diagramas. Formacion Universitaria, 2017, 10, 47-60.	0.2	0
88	Fully Automated Patch-Based Image Restoration: Application to Pathology Inpainting. Lecture Notes in Computer Science, 2016, , 3-15.	1.0	2
89	Relationship of grey and white matter abnormalities with distance from the surface of the brain in multiple sclerosis. Journal of Neurology, Neurosurgery and Psychiatry, 2016, 87, 1212-1217.	0.9	53
90	A multi-time-point modality-agnostic patch-based method for lesion filling in multiple sclerosis. NeuroImage, 2016, 139, 376-384.	2.1	74

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91	Fully automated grey and white matter spinal cord segmentation. Scientific Reports, 2016, 6, 36151.	1.6	34
92	Reduced Field-of-View Diffusion-Weighted Imaging of the Lumbosacral Enlargement: A Pilot In Vivo Study of the Healthy Spinal Cord at 3T. PLoS ONE, 2016, 11, e0164890.	1.1	11
93	Measuring brain atrophy with a generalized formulation of the boundary shift integral. Neurobiology of Aging, 2015, 36, S81-S90.	1.5	24
94	A Modality-Agnostic Patch-Based Technique for Lesion Filling in Multiple Sclerosis. Lecture Notes in Computer Science, 2014, 17, 781-788.	1.0	7
95	Information-Theoretic Approach for Automated White Matter Fiber Tracts Reconstruction. Neuroinformatics, 2012, 10, 305-318.	1.5	2
96	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
97	An automatic correction tool that can learn. , 2011, , .		4
98	Acute Damage to the Posterior Limb of the Internal Capsule on Diffusion Tensor Tractography as an Early Imaging Predictor of Motor Outcome after Stroke. American Journal of Neuroradiology, 2011, 32, 857-863.	1.2	151
99	Diffusion tensor imaging, permanent pyramidal tract damage, and outcome in subcortical stroke. Neurology, 2011, 76, 1606-1607.	1.5	4
100	Analysis of new diffusion tensor imaging anisotropy measures in the three‐phase plot. Journal of Magnetic Resonance Imaging, 2010, 31, 1435-1444.	1.9	20
101	Wallerian Degeneration in the Corticospinal Tract Evaluated by Diffusion Tensor Imaging Correlates with Motor Deficit 30 Days after Middle Cerebral Artery Ischemic Stroke. American Journal of Neuroradiology, 2010, 31, 1324-1330.	1.2	167
102	A web-based e-learning tool for UML class diagrams. , 2010, , .		25
103	An automatic correction tool for inorganic chemical formulas. , 2010, , .		0
104	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
105	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
106	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
107	DTIWeb: A Web-Based Framework for DTI Data Visualization and Processing. , 2007, , 727-740.		3
108	A Monte Carlo-Based Fiber Tracking Algorithm using Diffusion Tensor MRI. , 2006, , .		1

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109	A teaching/learning support tool for introductory programming courses. , 0, , .		12
110	An Automatic Correction Tool For Relational Database Schemas. , 0, , .		6
111	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