

# Martijn Froeling

## List of Publications by Citations

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109  
papers

2,407  
citations

24  
h-index

46  
g-index

121  
ext. papers

3,238  
ext. citations

5.3  
avg, IF

5.04  
L-index

#	Paper	IF	Citations
109	The challenge of mapping the human connectome based on diffusion tractography. <i>Nature Communications</i> , <b>2017</b> , 8, 1349	17.4	609
108	The importance of correcting for signal drift in diffusion MRI. <i>Magnetic Resonance in Medicine</i> , <b>2017</b> , 77, 285-299	4.4	100
107	Techniques and applications of skeletal muscle diffusion tensor imaging: A review. <i>Journal of Magnetic Resonance Imaging</i> , <b>2016</b> , 43, 773-88	5.6	96
106	DTI of human skeletal muscle: the effects of diffusion encoding parameters, signal-to-noise ratio and T2 on tensor indices and fiber tracts. <i>NMR in Biomedicine</i> , <b>2013</b> , 26, 1339-52	4.4	94
105	Muscle changes detected with diffusion-tensor imaging after long-distance running. <i>Radiology</i> , <b>2015</b> , 274, 548-62	20.5	88
104	Diffusion-tensor MRI reveals the complex muscle architecture of the human forearm. <i>Journal of Magnetic Resonance Imaging</i> , <b>2012</b> , 36, 237-48	5.6	87
103	Evaluation of skeletal muscle DTI in patients with duchenne muscular dystrophy. <i>NMR in Biomedicine</i> , <b>2015</b> , 28, 1589-97	4.4	71
102	RF coils: A practical guide for nonphysicists. <i>Journal of Magnetic Resonance Imaging</i> , <b>2018</b> , 48, 590	5.6	65
101	Feasibility of diffusion tensor imaging (DTI) with fibre tractography of the normal female pelvic floor. <i>European Radiology</i> , <b>2011</b> , 21, 1243-9	8	54
100	Architectural configuration and microstructural properties of the sacral plexus: a diffusion tensor MRI and fiber tractography study. <i>NeuroImage</i> , <b>2012</b> , 62, 1792-9	7.9	53
99	Investigating the non-linearity of the BOLD cerebrovascular reactivity response to targeted hypo/hypercapnia at 7T. <i>NeuroImage</i> , <b>2014</b> , 98, 296-305	7.9	51
98	"MASSIVE" brain dataset: Multiple acquisitions for standardization of structural imaging validation and evaluation. <i>Magnetic Resonance in Medicine</i> , <b>2017</b> , 77, 1797-1809	4.4	47
97	Reproducibility of diffusion tensor imaging in human forearm muscles at 3.0 T in a clinical setting. <i>Magnetic Resonance in Medicine</i> , <b>2010</b> , 64, 1182-90	4.4	44
96	Skeletal muscle diffusion tensor-MRI fiber tracking: rationale, data acquisition and analysis methods, applications and future directions. <i>NMR in Biomedicine</i> , <b>2017</b> , 30, e3563	4.4	43
95	Comparison of six fit algorithms for the intra-voxel incoherent motion model of diffusion-weighted magnetic resonance imaging data of pancreatic cancer patients. <i>PLoS ONE</i> , <b>2018</b> , 13, e0194590	3.7	34
94	Exploration of New Contrasts, Targets, and MR Imaging and Spectroscopy Techniques for Neuromuscular Disease - A Workshop Report of Working Group 3 of the Biomedicine and Molecular Biosciences COST Action BM1304 MYO-MRI. <i>Journal of Neuromuscular Diseases</i> , <b>2019</b> , 6, 1-30	5	32
93	Intravoxel incoherent motion modeling in the kidneys: Comparison of mono-, bi-, and triexponential fit. <i>Journal of Magnetic Resonance Imaging</i> , <b>2017</b> , 46, 228-239	5.6	31

92	Minimizing the Acquisition Time for Intravoxel Incoherent Motion Magnetic Resonance Imaging Acquisitions in the Liver and Pancreas. <i>Investigative Radiology</i> , <b>2016</b> , 51, 211-20	10.1	28
91	MRI shows thickening and altered diffusion in the median and ulnar nerves in multifocal motor neuropathy. <i>European Radiology</i> , <b>2017</b> , 27, 2216-2224	8	27
90	Evaluation of the female pelvic floor in pelvic organ prolapse using 3.0-Tesla diffusion tensor imaging and fibre tractography. <i>European Radiology</i> , <b>2012</b> , 22, 2806-13	8	26
89	Diagnostic accuracy of MRI and ultrasound in chronic immune-mediated neuropathies. <i>Neurology</i> , <b>2020</b> , 94, e62-e74	6.5	26
88	Multi-center evaluation of stability and reproducibility of quantitative MRI measures in healthy calf muscles. <i>NMR in Biomedicine</i> , <b>2019</b> , 32, e4119	4.4	25
87	Diffusion tensor imaging of the human calf: Variation of inter- and intramuscle-specific diffusion parameters. <i>Journal of Magnetic Resonance Imaging</i> , <b>2017</b> , 46, 1137-1148	5.6	24
86	Effects of perfusion on DTI and DKI estimates in the skeletal muscle. <i>Magnetic Resonance in Medicine</i> , <b>2017</b> , 78, 233-246	4.4	24
85	Endogenous contrast MRI of cardiac fibrosis: beyond late gadolinium enhancement. <i>Journal of Magnetic Resonance Imaging</i> , <b>2015</b> , 41, 1181-9	5.6	24
84	Tractography-based connectomes are dominated by false-positive connections <b>2016</b> ,		21
83	Consensus-based technical recommendations for clinical translation of renal diffusion-weighted MRI. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , <b>2020</b> , 33, 177-195	2.8	21
82	Evaluation of the 3D fractal dimension as a marker of structural brain complexity in multiple-acquisition MRI. <i>Human Brain Mapping</i> , <b>2019</b> , 40, 3299-3320	5.9	19
81	A novel diffusion-tensor MRI approach for skeletal muscle fascicle length measurements. <i>Physiological Reports</i> , <b>2016</b> , 4, e13012	2.6	19
80	Multiparametric quantitative MRI assessment of thigh muscles in limb-girdle muscular dystrophy 2A and 2B. <i>Muscle and Nerve</i> , <b>2018</b> , 58, 550-558	3.4	19
79	Endogenous assessment of chronic myocardial infarction with T(1) $\rho$ -mapping in patients. <i>Journal of Cardiovascular Magnetic Resonance</i> , <b>2014</b> , 16, 104	6.9	19
78	Diffusion tensor imaging and fiber tractography for the visualization of the female pelvic floor. <i>Clinical Anatomy</i> , <b>2013</b> , 26, 110-4	2.5	18
77	Diffusion tensor imaging of the auditory nerve in patients with long-term single-sided deafness. <i>Hearing Research</i> , <b>2015</b> , 323, 1-8	3.9	18
76	A tri-exponential model for intravoxel incoherent motion analysis of the human kidney: In silico and during pharmacological renal perfusion modulation. <i>European Journal of Radiology</i> , <b>2017</b> , 91, 168-174	4.7	15
75	A robust deconvolution method to disentangle multiple water pools in diffusion MRI. <i>NMR in Biomedicine</i> , <b>2018</b> , 31, e3965	4.4	15

74	Diffusion tensor magnetic resonance imaging and fiber tractography of the sacral plexus in children with spina bifida. <i>Journal of Urology</i> , <b>2014</b> , 192, 927-33	2.5	15
73	Quantitative MRI of skeletal muscle in a cross-sectional cohort of patients with spinal muscular atrophy types 2 and 3. <i>NMR in Biomedicine</i> , <b>2020</b> , 33, e4357	4.4	15
72	Diffusion tensor imaging of the anterior cruciate ligament graft. <i>Journal of Magnetic Resonance Imaging</i> , <b>2017</b> , 46, 1423-1432	5.6	14
71	Vasogenic edema versus neuroplasticity as neural correlates of hippocampal volume increase following electroconvulsive therapy. <i>Brain Stimulation</i> , <b>2020</b> , 13, 1080-1086	5.1	14
70	An advanced magnetic resonance imaging perspective on the etiology of deep tissue injury. <i>Journal of Applied Physiology</i> , <b>2018</b> , 124, 1580-1596	3.7	14
69	Assessment of passive muscle elongation using Diffusion Tensor MRI: Correlation between fiber length and diffusion coefficients. <i>NMR in Biomedicine</i> , <b>2016</b> , 29, 1813-1824	4.4	13
68	T relaxation-time mapping in healthy and diseased skeletal muscle using extended phase graph algorithms. <i>Magnetic Resonance in Medicine</i> , <b>2020</b> , 84, 2656-2670	4.4	13
67	Whole heart DTI using asymmetric bipolar diffusion gradients. <i>Journal of Cardiovascular Magnetic Resonance</i> , <b>2015</b> , 17,	6.9	12
66	Accelerated 4D phase contrast MRI in skeletal muscle contraction. <i>Magnetic Resonance in Medicine</i> , <b>2018</b> , 80, 1799-1811	4.4	12
65	Diffusion tensor imaging of peripheral nerves in non-fixed post-mortem subjects. <i>Forensic Science International</i> , <b>2016</b> , 263, 139-146	2.6	12
64	DTI Analysis Methods: Region of Interest Analysis <b>2016</b> , 175-182		12
63	Diffusion tensor MRI of the healthy brachial plexus. <i>PLoS ONE</i> , <b>2018</b> , 13, e0196975	3.7	12
62	Diffusion Tensor MRI of the Heart [In Vivo Imaging of Myocardial Fiber Architecture. <i>Current Cardiovascular Imaging Reports</i> , <b>2014</b> , 7, 1	0.7	12
61	Activity-dependent spinal cord neuromodulation rapidly restores trunk and leg motor functions after complete paralysis.. <i>Nature Medicine</i> , <b>2022</b> ,	50.5	12
60	DCE-MRI and IVIM-MRI of rabbit Vx2 tumors treated with MR-HIFU-induced mild hyperthermia. <i>Journal of Therapeutic Ultrasound</i> , <b>2016</b> , 4, 9		11
59	Quantitative MRI Reveals Microstructural Changes in the Upper Leg Muscles After Running a Marathon. <i>Journal of Magnetic Resonance Imaging</i> , <b>2020</b> , 52, 407-417	5.6	10
58	Diffusion tensor imaging reveals changes in non-fat infiltrated muscles in late onset Pompe disease. <i>Muscle and Nerve</i> , <b>2020</b> , 62, 541-549	3.4	10
57	QMRTools: a Mathematica toolbox for quantitative MRI analysis.. <i>Journal of Open Source Software</i> , <b>2019</b> , 4, 1204	5.2	10

56	Crossing muscle fibers of the human tongue resolved in vivo using constrained spherical deconvolution. <i>Journal of Magnetic Resonance Imaging</i> , <b>2019</b> , 50, 96-105	5.6	9
55	MRI of Skeletal Muscles in Participants with Type 2 Diabetes with or without Diabetic Polyneuropathy. <i>Radiology</i> , <b>2020</b> , 297, 608-619	20.5	9
54	The YOUth cohort study: MRI protocol and test-retest reliability in adults. <i>Developmental Cognitive Neuroscience</i> , <b>2020</b> , 45, 100816	5.5	9
53	Mono, bi- and tri-exponential diffusion MRI modelling for renal solid masses and comparison with histopathological findings. <i>Cancer Imaging</i> , <b>2018</b> , 18, 44	5.6	9
52	Myocardial Injury and Compromised Cardiomyocyte Integrity Following a Marathon Run. <i>JACC: Cardiovascular Imaging</i> , <b>2020</b> , 13, 1445-1447	8.4	8
51	In Vivo Reconstruction of Lumbar Erector Spinae Architecture Using Diffusion Tensor MRI. <i>Clinical Spine Surgery</i> , <b>2016</b> , 29, E139-45	1.8	8
50	Feasibility of in vivo whole heart DTI and IVIM with a 15 minute acquisition protocol. <i>Journal of Cardiovascular Magnetic Resonance</i> , <b>2014</b> , 16,	6.9	8
49	Multi-parametric MR in Becker muscular dystrophy patients. <i>NMR in Biomedicine</i> , <b>2020</b> , 33, e4385	4.4	8
48	Multicenter reproducibility study of diffusion MRI and fiber tractography of the lumbosacral nerves. <i>Journal of Magnetic Resonance Imaging</i> , <b>2018</b> , 48, 951-963	5.6	7
47	Accelerated 4D self-gated MRI of tibiofemoral kinematics. <i>NMR in Biomedicine</i> , <b>2017</b> , 30, e3791	4.4	7
46	Innovative Perspective: Gadolinium-Free Magnetic Resonance Imaging in Long-Term Follow-Up after Kidney Transplantation. <i>Frontiers in Physiology</i> , <b>2017</b> , 8, 296	4.6	7
45	Diffusion tensor imaging of the human thigh: consideration of DTI-based fiber tracking stop criteria. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , <b>2020</b> , 33, 343-355	2.8	7
44	Multiparametric Renal MRI: An Intrasubject Test-Retest Repeatability Study. <i>Journal of Magnetic Resonance Imaging</i> , <b>2021</b> , 53, 859-873	5.6	7
43	Quantification of disease progression in spinal muscular atrophy with muscle MRI-a pilot study. <i>NMR in Biomedicine</i> , <b>2021</b> , 34, e4473	4.4	7
42	On the sensitivity of the diffusion MRI signal to brain activity in response to a motor cortex paradigm. <i>Human Brain Mapping</i> , <b>2019</b> , 40, 5069-5082	5.9	6
41	Muscle diffusion tensor imaging in glycogen storage disease V (McArdle disease). <i>European Radiology</i> , <b>2019</b> , 29, 3224-3232	8	6
40	Quantitative assessment of brachial plexus MRI for the diagnosis of chronic inflammatory neuropathies. <i>Journal of Neurology</i> , <b>2021</b> , 268, 978-988	5.5	6
39	Magnetic resonance imaging of the cervical spinal cord in spinal muscular atrophy. <i>NeuroImage: Clinical</i> , <b>2019</b> , 24, 102002	5.3	5

38	Low interrater reliability of brachial plexus MRI in chronic inflammatory neuropathies. <i>Muscle and Nerve</i> , <b>2020</b> , 61, 779-783	3.4	5
37	The repeatability of bilateral diffusion tensor imaging (DTI) in the upper leg muscles of healthy adults. <i>European Radiology</i> , <b>2020</b> , 30, 1709-1718	8	4
36	Spherical deconvolution with tissue-specific response functions and multi-shell diffusion MRI to estimate multiple fiber orientation distributions (mFODs). <i>NeuroImage</i> , <b>2020</b> , 222, 117206	7.9	4
35	T2* mapping in an equine articular groove model: Visualizing changes in collagen orientation. <i>Journal of Orthopaedic Research</i> , <b>2020</b> , 38, 2383-2389	3.8	3
34	Post-mortem diffusion MRI of the cervical spine and its nerve roots. <i>Journal of Forensic Radiology and Imaging</i> , <b>2018</b> , 12, 50-56	1.3	3
33	Ex vivo cardiac DTI: on the effects of diffusion time and b-value. <i>Journal of Cardiovascular Magnetic Resonance</i> , <b>2014</b> , 16,	6.9	3
32	Marathon running transiently depletes the myocardial lipid pool. <i>Physiological Reports</i> , <b>2020</b> , 8, e14543	2.6	3
31	Untangling the diffusion signal using the phasor transform. <i>NMR in Biomedicine</i> , <b>2020</b> , 33, e4372	4.4	3
30	Diffusion tensor imaging of the anterior cruciate ligament following primary repair with internal bracing: A longitudinal study. <i>Journal of Orthopaedic Research</i> , <b>2021</b> , 39, 1318-1330	3.8	3
29	Can sodium MRI be used as a method for mapping of cartilage stiffness?. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , <b>2021</b> , 34, 327-336	2.8	3
28	Post-exercise intramuscular O supply is tightly coupled with a higher proximal-to-distal ATP synthesis rate in human tibialis anterior. <i>Journal of Physiology</i> , <b>2021</b> , 599, 1533-1550	3.9	3
27	On the generalizability of diffusion MRI signal representations across acquisition parameters, sequences and tissue types: Chronicles of the MEMENTO challenge. <i>NeuroImage</i> , <b>2021</b> , 240, 118367	7.9	3
26	On the generalizability of diffusion MRI signal representations across acquisition parameters, sequences and tissue types: chronicles of the MEMENTO challenge		2
25	Cardiac Biomarker Kinetics and Their Association With Magnetic Resonance Measures of Cardiomyocyte Integrity Following a Marathon Run: Implications for Postexercise Biomarker Testing. <i>Journal of the American Heart Association</i> , <b>2021</b> , 10, e020039	6	2
24	Evaluation of interrater reliability of different muscle segmentation techniques in diffusion tensor imaging. <i>NMR in Biomedicine</i> , <b>2021</b> , 34, e4430	4.4	2
23	PCA denoising and Wiener deconvolution of P 3D CSI data to enhance effective SNR and improve point spread function. <i>Magnetic Resonance in Medicine</i> , <b>2021</b> , 85, 2992-3009	4.4	2
22	Quantitative Muscle-MRI Correlates with Histopathology in Skeletal Muscle Biopsies. <i>Journal of Neuromuscular Diseases</i> , <b>2021</b> , 8, 669-678	5	2
21	Proton nuclear magnetic resonance J-spectroscopy of phantoms containing brain metabolites on a portable 0.05T MRI scanner. <i>Journal of Magnetic Resonance</i> , <b>2020</b> , 320, 106834	3	1

20	Cartan Frames for Heart Wall Fiber Motion. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 32-41	0.9	1
19	Decreased native renal T up to one week after gadobutrol administration in healthy volunteers. <i>Journal of Magnetic Resonance Imaging</i> , <b>2020</b> , 52, 622-631	5.6	1
18	Diffusion tensor imaging of the anterior cruciate ligament graft following reconstruction: a longitudinal study. <i>European Radiology</i> , <b>2020</b> , 30, 6673-6684	8	1
17	Quantitative magnetic resonance imaging of the brachial plexus shows specific changes in nerve architecture in chronic inflammatory demyelinating polyneuropathy, multifocal motor neuropathy and motor neuron disease. <i>European Journal of Neurology</i> , <b>2021</b> , 28, 2716-2726	6	1
16	Diffusion Tensor Imaging Shows Differences Between Myotonic Dystrophy Type 1 and Type 2. <i>Journal of Neuromuscular Diseases</i> , <b>2021</b> , 8, 949-962	5	1
15	No need to detune transmitters in 32-channel receiver arrays at 7 T. <i>NMR in Biomedicine</i> , <b>2021</b> , 34, e44914.4	4.4	1
14	High Inter-Rater Reliability of Manual Segmentation and Volume-Based Tractography in Healthy and Dystrophic Human Calf Muscle. <i>Diagnostics</i> , <b>2021</b> , 11,	3.8	1
13	3D Automated Segmentation of Lower Leg Muscles Using Machine Learning on a Heterogeneous Dataset. <i>Diagnostics</i> , <b>2021</b> , 11,	3.8	1
12	Robustness and stability of volume-based tractography in a multicenter setting.. <i>NMR in Biomedicine</i> , <b>2022</b> , e4707	4.4	0
11	Dynamic Contrast-enhanced and Diffusion-weighted Magnetic Resonance Imaging for Response Evaluation After Single-Dose Ablative Neoadjuvant Partial Breast Irradiation.. <i>Advances in Radiation Oncology</i> , <b>2022</b> , 7, 100854	3.3	0
10	Multi-modal MR imaging of the upper arm muscles of patients with Spinal Muscular Atrophy.. <i>NMR in Biomedicine</i> , <b>2022</b> , e4696	4.4	
9	MRI of the intraspinal nerve roots in patients with chronic inflammatory neuropathies: abnormalities correlate with clinical phenotypes.. <i>Journal of Neurology</i> , <b>2022</b> , 1	5.5	
8	Can Marathon Running Induce Myocardial Microdamage?. <i>Medicine and Science in Sports and Exercise</i> , <b>2019</b> , 51, 609-609	1.2	
7	Denoising Moving Heart Wall Fibers Using Cartan Frames. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 672-680	6.8	
6	The Authors Reply. <i>JACC: Cardiovascular Imaging</i> , <b>2020</b> , 13, 2063-2064	8.4	
5	SP224TRIEXPONENTIAL APPROACH FOR INTRAVOXEL INCOHERENT MOTION ANALYSISOF MULTI BVALUE DIFFUSION WHEIGHTED MRI DATA FOLLOWS GFR CHANGES IN HEALTHY HUMANS. <i>Nephrology Dialysis Transplantation</i> , <b>2016</b> , 31, i161-i161	4.3	
4	Validation of multiparametric MRI by histopathology after nephrectomy: a case study. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , <b>2021</b> , 34, 377-387	2.8	
3	Quantitative Interpretation of Myocardial Fiber Structure in the Left and Right Ventricle of an Equine Heart Using Diffusion Tensor Cardiovascular Magnetic Resonance Imaging. <i>Lecture Notes in Computer Science</i> , <b>2021</b> , 178-188	0.9	

- 2 The relationship between quantitative magnetic resonance imaging of the ankle plantar flexors, muscle function during walking and maximal strength in people with neuromuscular diseases.. *Clinical Biomechanics*, **2022**, 94, 105609 2.2
- 1 Confirmatory factor analysis including MRI-derived adipose tissues quantification improves associations of metabolic dysregulation to diastolic dysfunction.. *Journal of Diabetes and Its Complications*, **2022**, 36, 108202 3.2