Gerd Melkus

List of Publications by Year
in descending order

43 papers	1,071 citations	394421 19 h-index	414414 32 g-index
44 all docs	44 docs citations	44 times ranked	1674 citing authors

#	Article	IF	Citations
1	Bone marrow fat quantification in the presence of trabecular bone: Initial comparison between waterâ€fat imaging and singleâ€voxel MRS. Magnetic Resonance in Medicine, 2014, 71, 1158-1165.	3.0	127
2	Diffusion-Tensor Imaging of Human Articular Cartilage Specimens with Early Signs of Cartilage Damage. Radiology, 2013, 266, 831-841.	7.3	72
3	Combined Noninvasive Imaging and Modeling Approaches Reveal Metabolic Compartmentation in the Barley Endosperm Â. Plant Cell, 2011, 23, 3041-3054.	6.6	70
4	Dynamic ¹³C/¹H NMR imaging uncovers sugar allocation in the living seed. Plant Biotechnology Journal, 2011, 9, 1022-1037.	8.3	69
5	The Metabolic Role of the Legume Endosperm: A Noninvasive Imaging Study Â Â. Plant Physiology, 2009, 151, 1139-1154.	4.8	56
6	Surgical Correction of Cam Deformity in Association with Femoroacetabular Impingement and Its Impact on the Degenerative Process within the Hip Joint. Journal of Bone and Joint Surgery - Series A, 2017, 99, 1373-1381.	3.0	49
7	Change of Diffusion Tensor Imaging Parameters in Articular Cartilage With Progressive Proteoglycan Extraction. Investigative Radiology, 2011, 46, 401-409.	6.2	41
8	MRI quantification of fatty infiltration and muscle atrophy in a mouse model of rotator cuff tears. Journal of Orthopaedic Research, 2013, 31, 421-426.	2.3	39
9	Kartogenin treatment prevented joint degeneration in a rodent model of osteoarthritis: A pilot study. Journal of Orthopaedic Research, 2016, 34, 1780-1789.	2.3	37
10	Mouse MRI using phased-array coils. NMR in Biomedicine, 2007, 20, 326-334.	2.8	35
11	Ultra-high field diffusion tensor imaging of articular cartilage correlated with histology and scanning electron microscopy. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2011, 24, 247-258.	2.0	35
12	Quantitative Prostate <scp>MRI</scp>. Journal of Magnetic Resonance Imaging, 2021, 53, 1632-1645.	3.4	35
13	A Noninvasive Platform for Imaging and Quantifying Oil Storage in Submillimeter Tobacco Seed Â Â. Plant Physiology, 2013, 161, 583-593.	4.8	33
14	Spatially localized intermolecular zero-quantum coherence spectroscopy for in vivo applications. Magnetic Resonance in Medicine, 2006, 56, 745-753.	3.0	31
15	Unravelling the hip pistol grip/cam deformity: Origins to joint degeneration. Journal of Orthopaedic Research, 2018, 36, 3125-3135.	2.3	28
16	Diffusion tensor imaging and T₂ relaxometry of bilateral lumbar nerve roots: feasibility of inâ€plane imaging. NMR in Biomedicine, 2013, 26, 630-637.	2.8	26
17	Structure-specific magnetic field inhomogeneities and its effect on the correlation time. Magnetic Resonance Imaging, 2006, 24, 1341-1347.	1.8	25
18	Signal evolution in the local magnetic field of a capillary â€" analogy to the damped driven harmonic oscillator. Magnetic Resonance Imaging, 2012, 30, 540-553.	1.8	25

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19	Metabolic architecture of the cereal grain and its relevance to maximize carbon use efficiency. Plant Physiology, 2015, 169, pp.00981.2015.	4.8	22
20	Low and High Field Magnetic Resonance for in Vivo Analysis of Seeds. Materials, 2011, 4, 1426-1439.	2.9	19
21	Shortâ€echo spectroscopic imaging combined with lactate editing in a single scan. NMR in Biomedicine, 2008, 21, 1076-1086.	2.8	18
22	Quantitative in vivo 1H spectroscopic imaging of metabolites in the early postnatal mouse brain at 17.6 T. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2009, 22, 53-62.	2.0	17
23	Ex vivo porcine model to measure pH dependence of chemical exchange saturation transfer effect of glycosaminoglycan in the intervertebral disc. Magnetic Resonance in Medicine, 2014, 71, 1743-1749.	3.0	17
24	T1Ï•MRI detects cartilage damage in asymptomatic individuals with a cam deformity. Journal of Orthopaedic Research, 2016, 34, 1004-1009.	2.3	17
25	T1Ï•Hip Cartilage Mapping in Assessing Patients With Cam Morphology: How Can We Optimize the Regions of Interest?. Clinical Orthopaedics and Related Research, 2017, 475, 1066-1075.	1.5	15
26	Correlating quantitative MR measurements of standardized tumor lines with histological parameters and tumor control dose. Radiotherapy and Oncology, 2010, 96, 123-130.	0.6	12
27	Periacetabular osteotomy with or without arthroscopic management in patients with hip dysplasia: study protocol for a multicenter randomized controlled trial. Trials, 2020, 21, 725.	1.6	12
28	Novel Functionalization of Discrete Polymeric Biomaterial Microstructures for Applications in Imaging and Three-Dimensional Manipulation. ACS Applied Materials & Interfaces, 2014, 6, 14477-14485.	8.0	11
29	Sensitive Jâ€coupled metabolite mapping using Selâ€MQC with selective multiâ€spinâ€echo readout. Magnetic Resonance in Medicine, 2009, 62, 880-887.	3.0	10
30	Magnetic resonance imaging of ankle tendon pathology: benefits of additional axial short-tau inversion recovery imaging to reduce magic angle effects. Skeletal Radiology, 2013, 42, 499-510.	2.0	10
31	Does Cartilage Degenerate in Asymptomatic Hips With Cam Morphology?. Clinical Orthopaedics and Related Research, 2019, 477, 962-971.	1.5	10
32	Bone Marrow Reconversion With Reambulation. Investigative Radiology, 2021, 56, 215-223.	6.2	10
33	Utility of Quantitative <scp>T2</scp>â€Mapping Compared to Conventional and Advanced Diffusion Weighted Imaging Techniques for Multiparametric Prostate <scp>MRI</scp> in Men with Hip Prosthesis. Journal of Magnetic Resonance Imaging, 2022, 55, 265-274.	3.4	9
34	Preoperative Determination of Isocitrate Dehydrogenase Mutation in Gliomas Using Spectral Editing MRS : A Prospective Study. Journal of Magnetic Resonance Imaging, 2021, 53, 416-426.	3.4	6
35	Imaging of the rabbit supraspinatus enthesis at 7 Tesla: a 4â€week time course after repair surgery and effect of channeling. Journal of Magnetic Resonance Imaging, 2017, 46, 461-467.	3.4	5
36	Mapping vitamin B₆ metabolism by hydrazoCEST magnetic resonance imaging. Chemical Communications, 2021, 57, 10867-10870.	4.1	5

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37	What Is the Correlation Among dGEMRIC, T1p, and T2* Quantitative MRI Cartilage Mapping Techniques in Developmental Hip Dysplasia?. Clinical Orthopaedics and Related Research, 2021, 479, 1016-1024.	1.5	5
38	Marrow adipose tissue gradient is preserved through high protein diet and bed rest. A randomized crossover study. Bone Reports, 2019, 11, 100229.	0.4	3
39	Tracking metabolite dynamics in plants via indirect 13C chemical shift imaging with an interleaved variable density acquisition weighted sampling pattern. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2015, 28, 127-134.	2.0	2
40	Quantitative analysis of repaired rabbit supraspinatus tendons (Â± channeling) using magnetic resonance imaging at 7 Tesla. Quantitative Imaging in Medicine and Surgery, 2021, 11, 3460-3471.	2.0	1
41	Novel Intracranial Xenografts Of CNS Lymphoma Implicate a Role For Cereblon As a Mediator Of Lenalidomide Efficacy. Blood, 2013, 122, 374-374.	1.4	1
42	IMG-21. PROSPECTIVE PREOPERATIVE DETERMINATION OF ISOCITRATE DEHYDROGENASE MUTATION IN GLIOMAS USING SPECTRAL EDITING MAGNETIC RESONANCE SPECTROSCOPY. Neuro-Oncology, 2020, 22, iii359-iii359.	1.2	1
43	Application of Hyperpolarized 13C Magnetic Resonance Imaging to Detect Target Inhibition of NFkB Activation in Preclinical Patient-Derived Models of CNS Lymphoma. Blood, 2018, 132, 2840-2840.	1.4	0