

# Gerd Melkus

## List of Publications by Year in descending order

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43  
papers

1,071  
citations

448610

19  
h-index

466096

32  
g-index

44  
all docs

44  
docs citations

44  
times ranked

1850  
citing authors

#	ARTICLE	IF	CITATIONS
1	Bone marrow fat quantification in the presence of trabecular bone: Initial comparison between water-fat imaging and single-echo voxel MRS. <i>Magnetic Resonance in Medicine</i> , 2014, 71, 1158-1165.	1.9	127
2	Diffusion-Tensor Imaging of Human Articular Cartilage Specimens with Early Signs of Cartilage Damage. <i>Radiology</i> , 2013, 266, 831-841.	3.6	72
3	Combined Noninvasive Imaging and Modeling Approaches Reveal Metabolic Compartmentation in the Barley Endosperm. <i>Plant Cell</i> , 2011, 23, 3041-3054.	3.1	70
4	Dynamic <sup>13</sup> C/ <sup>1</sup> H NMR imaging uncovers sugar allocation in the living seed. <i>Plant Biotechnology Journal</i> , 2011, 9, 1022-1037.	4.1	69
5	The Metabolic Role of the Legume Endosperm: A Noninvasive Imaging Study. <i>Plant Physiology</i> , 2009, 151, 1139-1154.	2.3	56
6	Surgical Correction of Cam Deformity in Association with Femoroacetabular Impingement and Its Impact on the Degenerative Process within the Hip Joint. <i>Journal of Bone and Joint Surgery - Series A</i> , 2017, 99, 1373-1381.	1.4	49
7	Change of Diffusion Tensor Imaging Parameters in Articular Cartilage With Progressive Proteoglycan Extraction. <i>Investigative Radiology</i> , 2011, 46, 401-409.	3.5	41
8	MRI quantification of fatty infiltration and muscle atrophy in a mouse model of rotator cuff tears. <i>Journal of Orthopaedic Research</i> , 2013, 31, 421-426.	1.2	39
9	Kartogenin treatment prevented joint degeneration in a rodent model of osteoarthritis: A pilot study. <i>Journal of Orthopaedic Research</i> , 2016, 34, 1780-1789.	1.2	37
10	Mouse MRI using phased-array coils. <i>NMR in Biomedicine</i> , 2007, 20, 326-334.	1.6	35
11	Ultra-high field diffusion tensor imaging of articular cartilage correlated with histology and scanning electron microscopy. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2011, 24, 247-258.	1.1	35
12	Quantitative Prostate MRI. <i>Journal of Magnetic Resonance Imaging</i> , 2021, 53, 1632-1645.	1.9	35
13	A Noninvasive Platform for Imaging and Quantifying Oil Storage in Submillimeter Tobacco Seed. <i>Plant Physiology</i> , 2013, 161, 583-593.	2.3	33
14	Spatially localized intermolecular zero-quantum coherence spectroscopy for in vivo applications. <i>Magnetic Resonance in Medicine</i> , 2006, 56, 745-753.	1.9	31
15	Unravelling the hip pistol grip/cam deformity: Origins to joint degeneration. <i>Journal of Orthopaedic Research</i> , 2018, 36, 3125-3135.	1.2	28
16	Diffusion tensor imaging and T <sub>2</sub> relaxometry of bilateral lumbar nerve roots: feasibility of in-plane imaging. <i>NMR in Biomedicine</i> , 2013, 26, 630-637.	1.6	26
17	Structure-specific magnetic field inhomogeneities and its effect on the correlation time. <i>Magnetic Resonance Imaging</i> , 2006, 24, 1341-1347.	1.0	25
18	Signal evolution in the local magnetic field of a capillary: analogy to the damped driven harmonic oscillator. <i>Magnetic Resonance Imaging</i> , 2012, 30, 540-553.	1.0	25

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19	Metabolic architecture of the cereal grain and its relevance to maximize carbon use efficiency. <i>Plant Physiology</i> , 2015, 169, pp.00981.2015.	2.3	22
20	Low and High Field Magnetic Resonance for in Vivo Analysis of Seeds. <i>Materials</i> , 2011, 4, 1426-1439.	1.3	19
21	Short-echo spectroscopic imaging combined with lactate editing in a single scan. <i>NMR in Biomedicine</i> , 2008, 21, 1076-1086.	1.6	18
22	Quantitative in vivo <sup>1</sup> H spectroscopic imaging of metabolites in the early postnatal mouse brain at 17.6 T. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2009, 22, 53-62.	1.1	17
23	Ex vivo porcine model to measure pH dependence of chemical exchange saturation transfer effect of glycosaminoglycan in the intervertebral disc. <i>Magnetic Resonance in Medicine</i> , 2014, 71, 1743-1749.	1.9	17
24	T1 $\rho$ -MRI detects cartilage damage in asymptomatic individuals with a cam deformity. <i>Journal of Orthopaedic Research</i> , 2016, 34, 1004-1009.	1.2	17
25	T1 $\rho$ -Hip Cartilage Mapping in Assessing Patients With Cam Morphology: How Can We Optimize the Regions of Interest?. <i>Clinical Orthopaedics and Related Research</i> , 2017, 475, 1066-1075.	0.7	15
26	Correlating quantitative MR measurements of standardized tumor lines with histological parameters and tumor control dose. <i>Radiotherapy and Oncology</i> , 2010, 96, 123-130.	0.3	12
27	Periacetabular osteotomy with or without arthroscopic management in patients with hip dysplasia: study protocol for a multicenter randomized controlled trial. <i>Trials</i> , 2020, 21, 725.	0.7	12
28	Novel Functionalization of Discrete Polymeric Biomaterial Microstructures for Applications in Imaging and Three-Dimensional Manipulation. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 14477-14485.	4.0	11
29	Sensitive J-coupled metabolite mapping using Sel-MQC with selective multi-spin-echo readout. <i>Magnetic Resonance in Medicine</i> , 2009, 62, 880-887.	1.9	10
30	Magnetic resonance imaging of ankle tendon pathology: benefits of additional axial short-tau inversion recovery imaging to reduce magic angle effects. <i>Skeletal Radiology</i> , 2013, 42, 499-510.	1.2	10
31	Does Cartilage Degenerate in Asymptomatic Hips With Cam Morphology?. <i>Clinical Orthopaedics and Related Research</i> , 2019, 477, 962-971.	0.7	10
32	Bone Marrow Reconversion With Reambulation. <i>Investigative Radiology</i> , 2021, 56, 215-223.	3.5	10
33	Utility of Quantitative T <sub>2</sub> -Mapping Compared to Conventional and Advanced Diffusion Weighted Imaging Techniques for Multiparametric Prostate MRI in Men with Hip Prosthesis. <i>Journal of Magnetic Resonance Imaging</i> , 2022, 55, 265-274.	1.9	9
34	Preoperative Determination of Isocitrate Dehydrogenase Mutation in Gliomas Using Spectral Editing MRS: A Prospective Study. <i>Journal of Magnetic Resonance Imaging</i> , 2021, 53, 416-426.	1.9	6
35	Imaging of the rabbit supraspinatus enthesis at 7 Tesla: a 4-week time course after repair surgery and effect of channeling. <i>Journal of Magnetic Resonance Imaging</i> , 2017, 46, 461-467.	1.9	5
36	Mapping vitamin B <sub>6</sub> metabolism by hydrazoCEST magnetic resonance imaging. <i>Chemical Communications</i> , 2021, 57, 10867-10870.	2.2	5

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37	What Is the Correlation Among dGEMRIC, T1p, and T2* Quantitative MRI Cartilage Mapping Techniques in Developmental Hip Dysplasia?. <i>Clinical Orthopaedics and Related Research</i> , 2021, 479, 1016-1024.	0.7	5
38	Marrow adipose tissue gradient is preserved through high protein diet and bed rest. A randomized crossover study. <i>Bone Reports</i> , 2019, 11, 100229.	0.2	3
39	Tracking metabolite dynamics in plants via indirect <sup>13</sup> C chemical shift imaging with an interleaved variable density acquisition weighted sampling pattern. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2015, 28, 127-134.	1.1	2
40	Quantitative analysis of repaired rabbit supraspinatus tendons (Å± channeling) using magnetic resonance imaging at 7 Tesla. <i>Quantitative Imaging in Medicine and Surgery</i> , 2021, 11, 3460-3471.	1.1	1
41	Novel Intracranial Xenografts Of CNS Lymphoma Implicate a Role For Cereblon As a Mediator Of Lenalidomide Efficacy. <i>Blood</i> , 2013, 122, 374-374.	0.6	1
42	IMG-21. PROSPECTIVE PREOPERATIVE DETERMINATION OF ISOCITRATE DEHYDROGENASE MUTATION IN GLIOMAS USING SPECTRAL EDITING MAGNETIC RESONANCE SPECTROSCOPY. <i>Neuro-Oncology</i> , 2020, 22, iii359-iii359.	0.6	1
43	Application of Hyperpolarized <sup>13</sup> C Magnetic Resonance Imaging to Detect Target Inhibition of NFκB Activation in Preclinical Patient-Derived Models of CNS Lymphoma. <i>Blood</i> , 2018, 132, 2840-2840.	0.6	0