

# Thomas Baum

## List of Publications by Year in descending order

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218  
papers

6,518  
citations

61984

43  
h-index

88630

70  
g-index

224  
all docs

224  
docs citations

224  
times ranked

5768  
citing authors

#	ARTICLE	IF	CITATIONS
1	Preconditioned water-fat total field inversion: Application to spine quantitative susceptibility mapping. <i>Magnetic Resonance in Medicine</i> , 2022, 87, 417-430.	3.0	11
2	MR-based proton density fat fraction (PDFF) of the vertebral bone marrow differentiates between patients with and without osteoporotic vertebral fractures. <i>Osteoporosis International</i> , 2022, 33, 487-496.	3.1	18
3	Automated detection of the contrast phase in MDCT by an artificial neural network improves the accuracy of opportunistic bone mineral density measurements. <i>European Radiology</i> , 2022, 32, 1465-1474.	4.5	11
4	Epidemiology and reporting of osteoporotic vertebral fractures in patients with long-term hospital records based on routine clinical CT imaging. <i>Osteoporosis International</i> , 2022, 33, 685-694.	3.1	9
5	Low-dose multi-detector computed tomography for periradicular infiltrations at the cervical and lumbar spine. <i>Scientific Reports</i> , 2022, 12, 4324.	3.3	3
6	Multi-scanner and multi-modal lumbar vertebral body and intervertebral disc segmentation database. <i>Scientific Data</i> , 2022, 9, 97.	5.3	6
7	On quantification errors of $R2^*_{2^{\text{ast}}}$ and proton density fat fraction mapping in trabecularized bone marrow in the static dephasing regime. <i>Magnetic Resonance in Medicine</i> , 2022, 88, 1126-1139.	3.0	1
8	Imaging of the Osteoporotic Spine – Quantitative Approaches in Diagnostics and for the Prediction of the Individual Fracture Risk. <i>RoFo Fortschritte Auf Dem Gebiet Der Rontgenstrahlen Und Der Bildgebenden Verfahren</i> , 2022, 194, 1088-1099.	1.3	6
9	Editorial on Special Issue – “Spine Imaging: Novel Image Acquisition Techniques and Analysis Tools” Diagnostics, 2022, 12, 1361.	2.6	0
10	Patient-Specific Finite Element Modeling of the Whole Lumbar Spine Using Clinical Routine Multi-Detector Computed Tomography (MDCT) Data – A Pilot Study. <i>Biomedicines</i> , 2022, 10, 1567.	3.2	4
11	<scp>MRI</scp>-Based Quantitative Osteoporosis Imaging at the Spine and Femur. <i>Journal of Magnetic Resonance Imaging</i> , 2021, 54, 12-35.	3.4	61
12	Opportunistic osteoporosis screening: contrast-enhanced dual-layer spectral CT provides accurate measurements of vertebral bone mineral density. <i>European Radiology</i> , 2021, 31, 3147-3155.	4.5	15
13	Physiological variation of the vertebral bone marrow water T2 relaxation time. <i>NMR in Biomedicine</i> , 2021, 34, e4439.	2.8	9
14	Estimating vertebral bone marrow fat unsaturation based on short-TE STEAM MRS. <i>Magnetic Resonance in Medicine</i> , 2021, 85, 615-626.	3.0	6
15	Low-dose MDCT: evaluation of the impact of systematic tube current reduction and sparse sampling on the detection of degenerative spine diseases. <i>European Radiology</i> , 2021, 31, 2590-2600.	4.5	6
16	Improved Reliability of Automated ASPECTS Evaluation Using Iterative Model Reconstruction from Head CT Scans. <i>Journal of Neuroimaging</i> , 2021, 31, 341-347.	2.0	6
17	Automatic opportunistic osteoporosis screening in routine CT: improved prediction of patients with prevalent vertebral fractures compared to DXA. <i>European Radiology</i> , 2021, 31, 6069-6077.	4.5	50
18	Local Bone Mineral Density, Subcutaneous and Visceral Adipose Tissue Measurements in Routine Multi-Detector Computed Tomography – Which Parameter Predicts Incident Vertebral Fractures Best?. <i>Diagnostics</i> , 2021, 11, 240.	2.6	4

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19	Texture Features of Proton Density Fat Fraction Maps from Chemical Shift Encoding-Based MRI Predict Paraspinal Muscle Strength. <i>Diagnostics</i> , 2021, 11, 239.	2.6	8
20	Association of Thigh Muscle Strength with Texture Features Based on Proton Density Fat Fraction Maps Derived from Chemical Shift Encoding-Based Water-Fat MRI. <i>Diagnostics</i> , 2021, 11, 302.	2.6	2
21	Patients with episodic migraine show increased T2 values of the trapezius muscles – an investigation by quantitative high-resolution magnetic resonance imaging. <i>Cephalalgia</i> , 2021, 41, 934-942.	3.9	4
22	MDCT-Based Finite Element Analyses: Are Measurements at the Lumbar Spine Associated with the Biomechanical Strength of Functional Spinal Units of Incidental Osteoporotic Fractures along the Thoracolumbar Spine?. <i>Diagnostics</i> , 2021, 11, 455.	2.6	5
23	Occult Disco-Ligamentous Lesions of the Subaxial c-Spine – A Comparison of Preoperative Imaging Findings and Intraoperative Site Inspection. <i>Diagnostics</i> , 2021, 11, 447.	2.6	6
24	Implementation of a sagittal T2-weighted DIXON turbo spin-echo sequence may shorten MRI acquisitions in the emergency setting of suspected spinal bleeding. <i>European Radiology Experimental</i> , 2021, 5, 19.	3.4	3
25	Low-Dose MDCT of Patients With Spinal Instrumentation Using Sparse Sampling: Impact on Metal Artifacts. <i>American Journal of Roentgenology</i> , 2021, 216, 1308-1317.	2.2	5
26	Regional variation of thigh muscle fat infiltration in patients with neuromuscular diseases compared to healthy controls. <i>Quantitative Imaging in Medicine and Surgery</i> , 2021, 11, 2610-2621.	2.0	7
27	Quantitative Muscle MRI in Patients with Neuromuscular Diseases – Association of Muscle Proton Density Fat Fraction with Semi-Quantitative Grading of Fatty Infiltration and Muscle Strength at the Thigh Region. <i>Diagnostics</i> , 2021, 11, 1056.	2.6	9
28	Low-dose MDCT: evaluation of the impact of systematic tube current reduction and sparse sampling on quantitative paraspinal muscle assessment. <i>Quantitative Imaging in Medicine and Surgery</i> , 2021, 11, 3042-3050.	2.0	0
29	Multi-detector computed tomography (MDCT) imaging: association of bone texture parameters with finite element analysis (FEA)-based failure load of single vertebrae and functional spinal units. <i>Quantitative Imaging in Medicine and Surgery</i> , 2021, 11, 2955-2967.	2.0	3
30	Prediction of incident vertebral fractures in routine MDCT: Comparison of global texture features, 3D finite element parameters and volumetric BMD. <i>European Journal of Radiology</i> , 2021, 141, 109827.	2.6	6
31	Vertebral bone marrow T2* mapping using chemical shift encoding-based water-fat separation in the quantitative analysis of lumbar osteoporosis and osteoporotic fractures. <i>Quantitative Imaging in Medicine and Surgery</i> , 2021, 11, 3715-3725.	2.0	15
32	CT-like images based on T1 spoiled gradient-echo and ultra-short echo time MRI sequences for the assessment of vertebral fractures and degenerative bone changes of the spine. <i>European Radiology</i> , 2021, 31, 4680-4689.	4.5	35
33	Prediction of Incidental Osteoporotic Fractures at Vertebral-Specific Level Using 3D Non-Linear Finite Element Parameters Derived from Routine Abdominal MDCT. <i>Diagnostics</i> , 2021, 11, 208.	2.6	9
34	MDCT-Based Finite Element Analysis for the Prediction of Functional Spine Unit Strength – An In Vitro Study. <i>Materials</i> , 2021, 14, 5791.	2.9	2
35	Association of Cervical and Lumbar Paraspinal Muscle Composition Using Texture Analysis of MR-Based Proton Density Fat Fraction Maps. <i>Diagnostics</i> , 2021, 11, 1929.	2.6	3
36	A computed tomography vertebral segmentation dataset with anatomical variations and multi-vendor scanner data. <i>Scientific Data</i> , 2021, 8, 284.	5.3	22

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37	Impact of dose reduction and iterative model reconstruction on multi-detector CT imaging of the brain in patients with suspected ischemic stroke. <i>Scientific Reports</i> , 2021, 11, 22271.	3.3	5
38	Postmenopausal Chinese-Singaporean Women Have a Higher Ratio of Visceral to Subcutaneous Adipose Tissue Volume than Caucasian Women of the Same Age and BMI. <i>Diagnostics</i> , 2021, 11, 2127.	2.6	1
39	Texture Analysis Using CT and Chemical Shift Encoding-Based Water-Fat MRI Can Improve Differentiation Between Patients With and Without Osteoporotic Vertebral Fractures. <i>Frontiers in Endocrinology</i> , 2021, 12, 778537.	3.5	8
40	Gender-, Age- and Region-Specific Characterization of Vertebral Bone Microstructure Through Automated Segmentation and 3D Texture Analysis of Routine Abdominal CT. <i>Frontiers in Endocrinology</i> , 2021, 12, 792760.	3.5	7
41	Systematic Evaluation of Low-dose MDCT for Planning Purposes of Lumbosacral Periradicular Infiltrations. <i>Clinical Neuroradiology</i> , 2020, 30, 749-759.	1.9	6
42	X-ray-based quantitative osteoporosis imaging at the spine. <i>Osteoporosis International</i> , 2020, 31, 233-250.	3.1	68
43	Effect of the intervertebral disc on vertebral bone strength prediction: a finite-element study. <i>Spine Journal</i> , 2020, 20, 665-671.	1.3	22
44	Opportunistic QCT Bone Mineral Density Measurements Predicting Osteoporotic Fractures: A Use Case in a Prospective Clinical Cohort. <i>Frontiers in Endocrinology</i> , 2020, 11, 586352.	3.5	16
45	Cartilage T <sub>2</sub> Relaxation Times and Subchondral Trabecular Bone Parameters Predict Morphological Outcome After Matrix-Associated Autologous Chondrocyte Implantation With Autologous Bone Grafting. <i>American Journal of Sports Medicine</i> , 2020, 48, 3573-3585.	4.2	5
46	Imaging of the degenerative spine using a sagittal T2-weighted DIXON turbo spin-echo sequence. <i>European Journal of Radiology</i> , 2020, 131, 109204.	2.6	14
47	Finite Element Analysis-Based Vertebral Bone Strength Prediction Using MDCT Data: How Low Can We Go?. <i>Frontiers in Endocrinology</i> , 2020, 11, 442.	3.5	7
48	A Vertebral Segmentation Dataset with Fracture Grading. <i>Radiology: Artificial Intelligence</i> , 2020, 2, e190138.	5.8	71
49	Vertebral Bone Marrow Heterogeneity Using Texture Analysis of Chemical Shift Encoding-Based MRI: Variations in Age, Sex, and Anatomical Location. <i>Frontiers in Endocrinology</i> , 2020, 11, 555931.	3.5	14
50	Age- and BMI-related variations of fat distribution in sacral and lumbar bone marrow and their association with local muscle fat content. <i>Scientific Reports</i> , 2020, 10, 9686.	3.3	8
51	Regional variation in paraspinal muscle composition using chemical shift encoding-based water-fat MRI. <i>Quantitative Imaging in Medicine and Surgery</i> , 2020, 10, 496-507.	2.0	5
52	Radiation dose reduction for CT-guided intrathecal nusinersen administration in adult patients with spinal muscular atrophy. <i>Scientific Reports</i> , 2020, 10, 3406.	3.3	7
53	Low-dose and sparse sampling MDCT-based femoral bone strength prediction using finite element analysis. <i>Archives of Osteoporosis</i> , 2020, 15, 17.	2.4	11
54	Age- and gender-related variations of cervical muscle composition using chemical shift encoding-based water-fat MRI. <i>European Journal of Radiology</i> , 2020, 125, 108904.	2.6	8

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55	Assessment of paraspinal muscle characteristics, lumbar BMD, and their associations in routine multi-detector CT of patients with and without osteoporotic vertebral fractures. <i>European Journal of Radiology</i> , 2020, 125, 108867.	2.6	13
56	T2 mapping of the distal sciatic nerve in healthy subjects and patients suffering from lumbar disc herniation with nerve compression. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2020, 33, 713-724.	2.0	10
57	Association of thigh and paraspinal muscle composition in young adults using chemical shift encoding-based water-fat MRI. <i>Quantitative Imaging in Medicine and Surgery</i> , 2020, 10, 128-136.	2.0	5
58	Predicting Vertebral Bone Strength Using Finite Element Analysis for Opportunistic Osteoporosis Screening in Routine Multidetector Computed Tomography Scans—A Feasibility Study. <i>Frontiers in Endocrinology</i> , 2020, 11, 526332.	3.5	11
59	Opportunistic Osteoporosis Screening Reveals Low Bone Density in Patients With Screw Loosening After Lumbar Semi-Rigid Instrumentation: A Case-Control Study. <i>Frontiers in Endocrinology</i> , 2020, 11, 552719.	3.5	21
60	Spectral-detector based x-ray absorptiometry (SDXA): in-vivo bone mineral density measurements in patients with and without osteoporotic fractures. <i>Biomedical Physics and Engineering Express</i> , 2020, 6, 055021.	1.2	4
61	Association of quadriceps muscle, gluteal muscle, and femoral bone marrow composition using chemical shift encoding-based water-fat MRI: a preliminary study in healthy young volunteers. <i>European Radiology Experimental</i> , 2020, 4, 35.	3.4	0
62	Regional Variation of Thigh Muscle Composition in Healthy Controls and Patients with Myotonic Dystrophy Type 2, Limb Girdle Muscular Dystrophy Type 2A, and Pompe's Disease. , 2020, 24, .		0
63	Automated Opportunistic Osteoporosis Screening in Routine Computed Tomography of the Spine: Comparison With Dedicated Quantitative CT. <i>Journal of Bone and Mineral Research</i> , 2020, 37, 1287-1296.	2.8	16
64	Improved Brachial Plexus Visualization Using an Adiabatic iMSDE-Prepared STIR 3D TSE. <i>Clinical Neuroradiology</i> , 2019, 29, 631-638.	1.9	25
65	MDCT-based Finite Element Analysis of Vertebral Fracture Risk: What Dose is Needed?. <i>Clinical Neuroradiology</i> , 2019, 29, 645-651.	1.9	11
66	Reliable semiquantitative whole-joint MRI score for the shoulder joint: The shoulder osteoarthritis severity (SOAS) score. <i>Journal of Magnetic Resonance Imaging</i> , 2019, 49, e152-e163.	3.4	10
67	Association of paraspinal muscle water-fat MRI-based measurements with isometric strength measurements. <i>European Radiology</i> , 2019, 29, 599-608.	4.5	66
68	Vertebral bone marrow fat fraction changes in postmenopausal women with breast cancer receiving combined aromatase inhibitor and bisphosphonate therapy. <i>BMC Musculoskeletal Disorders</i> , 2019, 20, 515.	1.9	4
69	Quantitative magnetic resonance imaging of the upper trapezius muscles—assessment of myofascial trigger points in patients with migraine. <i>Journal of Headache and Pain</i> , 2019, 20, 8.	6.0	23
70	Differentiating supraclavicular from gluteal adipose tissue based on simultaneous PDFP and T <sub>2</sub> * mapping using a 2D-echo gradient-echo acquisition. <i>Journal of Magnetic Resonance Imaging</i> , 2019, 50, 424-434.	3.4	23
71	Accelerating anatomical 2D turbo spin echo imaging of the ankle using compressed sensing. <i>European Journal of Radiology</i> , 2019, 118, 277-284.	2.6	28
72	Bone mineral density measurements derived from dual-layer spectral CT enable opportunistic screening for osteoporosis. <i>European Radiology</i> , 2019, 29, 6355-6363.	4.5	46

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73	Tube Current Reduction in CT Angiography: How Low Can We Go in Imaging of Patients With Suspected Acute Stroke?. American Journal of Roentgenology, 2019, 213, 410-416.	2.2	4
74	Texture analysis of vertebral bone marrow using chemical shift encoding-based water-fat MRI: a feasibility study. Osteoporosis International, 2019, 30, 1265-1274.	3.1	30
75	Multi-detector CT imaging: impact of virtual tube current reduction and sparse sampling on detection of vertebral fractures. European Radiology, 2019, 29, 3606-3616.	4.5	21
76	Opportunistic osteoporosis screening in multi-detector CT images via local classification of textures. Osteoporosis International, 2019, 30, 1275-1285.	3.1	72
77	Lumbar muscle and vertebral bodies segmentation of chemical shift encoding-based water-fat MRI: the reference database MyoSegmentUM spine. BMC Musculoskeletal Disorders, 2019, 20, 152.	1.9	10
78	Improved prediction of incident vertebral fractures using opportunistic QCT compared to DXA. European Radiology, 2019, 29, 4980-4989.	4.5	99
79	Paraspinal Muscle DTI Metrics Predict Muscle Strength. Journal of Magnetic Resonance Imaging, 2019, 50, 816-823.	3.4	22
80	3D grating-based X-ray phase-contrast computed tomography for high-resolution quantitative assessment of cartilage: An experimental feasibility study with 3T MRI, 7T MRI and biomechanical correlation. PLoS ONE, 2019, 14, e0212106.	2.5	9
81	DXA-equivalent quantification of bone mineral density using dual-layer spectral CT scout scans. European Radiology, 2019, 29, 4624-4634.	4.5	18
82	Effect of Statistically Iterative Image Reconstruction on Vertebral Bone Strength Prediction Using Bone Mineral Density and Finite Element Modeling. Journal of Computer Assisted Tomography, 2019, 43, 61-65.	0.9	6
83	Differentiation of Acute/Subacute versus Old Vertebral Fractures in Multislice Detector Computed Tomography: Is Magnetic Resonance Imaging Always Needed?. World Neurosurgery, 2019, 122, e676-e683.	1.3	7
84	On the sensitivity of quantitative susceptibility mapping for measuring trabecular bone density. Magnetic Resonance in Medicine, 2019, 81, 1739-1754.	3.0	20
85	T2-relaxation time of cartilage repair tissue is associated with bone remodeling after spongiosa-augmented matrix-associated autologous chondrocyte implantation. Osteoarthritis and Cartilage, 2019, 27, 90-98.	1.3	17
86	Associations of thigh muscle fat infiltration with isometric strength measurements based on chemical shift encoding-based water-fat magnetic resonance imaging. European Radiology Experimental, 2019, 3, 45.	3.4	27
87	Accurate Opportunistic Vertebral Bone Mineral Density Measurements Based on Phantomless Routine Contrast-Enhanced Dual-Layer Spectral CT. Seminars in Musculoskeletal Radiology, 2019, 23, .	0.7	0
88	T2 mapping of lumbosacral nerves in patients suffering from unilateral radicular pain due to degenerative disc disease. Journal of Neurosurgery: Spine, 2019, 30, 750-758.	1.7	5
89	Multidetector Computed Tomography Imaging. Journal of Computer Assisted Tomography, 2018, 42, 441-447.	0.9	24
90	Molecular In Vivo Imaging of Bone Marrow Adipose Tissue. Current Molecular Biology Reports, 2018, 4, 25-33.	1.6	1

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91	Association of proton density fat fraction in adipose tissue with imaging-based and anthropometric obesity markers in adults. <i>International Journal of Obesity</i> , 2018, 42, 175-182.	3.4	34
92	Multi-level hierarchical finite cell method for embedded interface problems with application in biomechanics. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2018, 34, e2951.	2.1	28
93	Feasibility of opportunistic osteoporosis screening in routine contrast-enhanced multi detector computed tomography (MDCT) using texture analysis. <i>Osteoporosis International</i> , 2018, 29, 825-835.	3.1	27
94	Effect of radiation dose reduction on texture measures of trabecular bone microstructure: an in vitro study. <i>Journal of Bone and Mineral Metabolism</i> , 2018, 36, 323-335.	2.7	9
95	Quantitative MRI and spectroscopy of bone marrow. <i>Journal of Magnetic Resonance Imaging</i> , 2018, 47, 332-353.	3.4	185
96	Longitudinal changes in subchondral bone structure as assessed with MRI are associated with functional outcome after high tibial osteotomy. <i>Journal of ISAKOS</i> , 2018, 3, 205-212.	2.3	5
97	Automated assessment of paraspinal muscle fat composition based on the segmentation of chemical shift encoding-based water/fat-separated images. <i>European Radiology Experimental</i> , 2018, 2, 32.	3.4	5
98	Gender- and Age-Related Changes in Trunk Muscle Composition Using Chemical Shift Encoding-Based Water-Fat MRI. <i>Nutrients</i> , 2018, 10, 1972.	4.1	21
99	Associations Between Lumbar Vertebral Bone Marrow and Paraspinal Muscle Fat Compositions: An Investigation by Chemical Shift Encoding-Based Water-Fat MRI. <i>Frontiers in Endocrinology</i> , 2018, 9, 563.	3.5	39
100	Acute infarction after mechanical thrombectomy is better delineable in virtual non-contrast compared to conventional images using a dual-layer spectral CT. <i>Scientific Reports</i> , 2018, 8, 9329.	3.3	16
101	Anatomical Variation of Age-Related Changes in Vertebral Bone Marrow Composition Using Chemical Shift Encoding-Based Water-Fat Magnetic Resonance Imaging. <i>Frontiers in Endocrinology</i> , 2018, 9, 141.	3.5	65
102	Effects of virtual tube current reduction and sparse sampling on MDCT-based femoral BMD measurements. <i>Osteoporosis International</i> , 2018, 29, 2685-2692.	3.1	11
103	Three-material decomposition with dual-layer spectral CT compared to MRI for the detection of bone marrow edema in patients with acute vertebral fractures. <i>Skeletal Radiology</i> , 2018, 47, 1533-1540.	2.0	21
104	Magnetic Resonance Imaging of Adipose Tissue in Metabolic Dysfunction. <i>RoFo Fortschritte Auf Dem Gebiet Der Rontgenstrahlen Und Der Bildgebenden Verfahren</i> , 2018, 190, 1121-1130.	1.3	11
105	Thigh muscle segmentation of chemical shift encoding-based water-fat magnetic resonance images: The reference database MyoSegmenTUM. <i>PLoS ONE</i> , 2018, 13, e0198200.	2.5	22
106	Calcium decomposition and phantomless bone mineral density measurements using dual-layer-based spectral computed tomography. , 2018, , .		0
107	Osteoporosis Is the Most Important Risk Factor for Odontoid Fractures in the Elderly. <i>Journal of Bone and Mineral Research</i> , 2017, 32, 1582-1588.	2.8	21
108	Influence of Contrast Media on Bone Mineral Density (BMD) Measurements from Routine Contrast-Enhanced MDCT Datasets using a Phantom-less BMD Measurement Tool. <i>RoFo Fortschritte Auf Dem Gebiet Der Rontgenstrahlen Und Der Bildgebenden Verfahren</i> , 2017, 189, 537-543.	1.3	13



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109	Measurement of vertebral bone marrow proton density fat fraction in children using quantitative water-fat MRI. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2017, 30, 449-460.	2.0	46
110	Proton Density Fat-Fraction of Rotator Cuff Muscles Is Associated With Isometric Strength 10 Years After Rotator Cuff Repair: A Quantitative Magnetic Resonance Imaging Study of the Shoulder. <i>American Journal of Sports Medicine</i> , 2017, 45, 1990-1999.	4.2	9
111	Phase-field boundary conditions for the voxel finite cell method: Surface-free stress analysis of CT-based bone structures. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2017, 33, e2880.	2.1	33
112	Effects of sparse sampling in combination with iterative reconstruction on quantitative bone microstructure assessment. , 2017, , .		0
113	ADC Quantification of the Vertebral Bone Marrow Water Component: Removing the Confounding Effect of Residual Fat. <i>Magnetic Resonance in Medicine</i> , 2017, 78, 1432-1441.	3.0	17
114	Regional analysis of age-related local bone loss in the spine of a healthy population using 3D voxel-based modeling. <i>Bone</i> , 2017, 103, 233-240.	2.9	19
115	Risk of vertebral compression fractures in multiple myeloma patients. <i>Medicine (United States)</i> , 2017, 96, e5825.	1.0	17
116	Bone Mineral Density Estimations From Routine Multidetector Computed Tomography. <i>Journal of Computer Assisted Tomography</i> , 2017, 41, 217-223.	0.9	36
117	Bone mineral density measurements in vertebral specimens and phantoms using dual-layer spectral computed tomography. <i>Scientific Reports</i> , 2017, 7, 17519.	3.3	32
118	Is multidetector CT-based bone mineral density and quantitative bone microstructure assessment at the spine still feasible using ultra-low tube current and sparse sampling?. <i>European Radiology</i> , 2017, 27, 5261-5271.	4.5	47
119	Correction of phase errors in quantitative water-fat imaging using a monopolar time-interleaved multi-echo gradient echo sequence. <i>Magnetic Resonance in Medicine</i> , 2017, 78, 984-996.	3.0	50
120	B1-insensitive T2 mapping of healthy thigh muscles using a T2-prepared 3D TSE sequence. <i>PLoS ONE</i> , 2017, 12, e0171337.	2.5	18
121	Low-Dose Simulation and Sparse Sampling with Statistical Iterative Reconstruction: Dose Reduction in MDCT-Based Bone Mineral Density and Microstructure Assessment. <i>Seminars in Musculoskeletal Radiology</i> , 2017, 21, S1-S5.	0.7	0
122	Cartilage Repair Tissue Composition Assessed with 3-T MRI Correlates with Trabecular Bone Remodeling in Patients with Spongiosa-augmented Matrix-induced Autologous Chondrocyte Implantation. <i>Seminars in Musculoskeletal Radiology</i> , 2017, 21, S1-S5.	0.7	0
123	Proton-Density Fat Fraction of Rotator Cuff Muscles Is Associated with Isometric Strength 10 Years after Rotator Cuff Repair: A Quantitative MR Imaging Study of the Shoulder. <i>Seminars in Musculoskeletal Radiology</i> , 2017, 21, S1-S5.	0.7	1
124	Use of MR-based trabecular bone microstructure analysis at the distal radius for osteoporosis diagnostics: a study in post-menopausal women with breast cancer and treated with aromatase inhibitor. <i>Clinical Cases in Mineral and Bone Metabolism</i> , 2016, 13, 29-32.	1.0	1
125	Diagnostic Value of CT Arthrography for Evaluation of Osteochondral Lesions at the Ankle. <i>BioMed Research International</i> , 2016, 2016, 1-11.	1.9	38
126	MR-Based Assessment of Bone Marrow Fat in Osteoporosis, Diabetes, and Obesity. <i>Frontiers in Endocrinology</i> , 2016, 7, 74.	3.5	70



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127	Effect of Low-Dose MDCT and Iterative Reconstruction on Trabecular Bone Microstructure Assessment. PLoS ONE, 2016, 11, e0159903.	2.5	8
128	Degeneration in ACL Injured Knees with and without Reconstruction in Relation to Muscle Size and Fat Contentâ€”Data from the Osteoarthritis Initiative. PLoS ONE, 2016, 11, e0166865.	2.5	20
129	Association of Quadriceps Muscle Fat With Isometric Strength Measurements in Healthy Males Using Chemical Shift Encoding-Based Water-Fat Magnetic Resonance Imaging. Journal of Computer Assisted Tomography, 2016, 40, 447-451.	0.9	32
130	Effects of dose reduction on bone strength prediction using finite element analysis. Scientific Reports, 2016, 6, 38441.	3.3	20
131	Automatic segmentation of abdominal organs and adipose tissue compartments in water-fat MRI: Application to weight-loss in obesity. European Journal of Radiology, 2016, 85, 1613-1621.	2.6	34
132	Serum miRNA Signatures Are Indicative of Skeletal Fractures in Postmenopausal Women With and Without Type 2 Diabetes and Influence Osteogenic and Adipogenic Differentiation of Adipose Tissueâ€”Derived Mesenchymal Stem Cells In Vitro. Journal of Bone and Mineral Research, 2016, 31, 2173-2192.	2.8	115
133	Effect of low-dose CT and iterative reconstruction on trabecular bone microstructure assessment. Proceedings of SPIE, 2016, , .	0.8	0
134	Assessing vertebral fracture risk on volumetric quantitative computed tomography by geometric characterization of trabecular bone structure. Proceedings of SPIE, 2016, 9785, .	0.8	0
135	Distinguishing Benign and Malignant Vertebral Fractures Using CT and MRI. Seminars in Musculoskeletal Radiology, 2016, 20, 345-352.	0.7	22
136	MR-based assessment of body fat distribution and characteristics. European Journal of Radiology, 2016, 85, 1512-1518.	2.6	68
137	Diffusionâ€”weighted stimulated echo acquisition mode (DWâ€”STEAM) MR spectroscopy to measure fat unsaturation in regions with low protonâ€”density fat fraction. Magnetic Resonance in Medicine, 2016, 75, 32-41.	3.0	23
138	X-ray Dark-Field Vector Radiographyâ€”A Novel Technique for Osteoporosis Imaging. Journal of Computer Assisted Tomography, 2015, 39, 286-289.	0.9	13
139	The need for $T_2$ correction on MRS-based vertebral bone marrow fat quantification: implications for bone marrow fat fraction age dependence. NMR in Biomedicine, 2015, 28, 432-439.	2.8	52
140	Modeling of $T_2^*$ decay in vertebral bone marrow fat quantification. NMR in Biomedicine, 2015, 28, 1535-1542.	2.8	46
141	MRâ€”detected changes in liver fat, abdominal fat, and vertebral bone marrow fat after a fourâ€”week calorie restriction in obese women. Journal of Magnetic Resonance Imaging, 2015, 42, 1272-1280.	3.4	51
142	In-Vivo Assessment of Femoral Bone Strength Using Finite Element Analysis (FEA) Based on Routine MDCT Imaging: A Preliminary Study on Patients with Vertebral Fractures. PLoS ONE, 2015, 10, e0116907.	2.5	31
143	View-Angle Tilting and Slice-Encoding Metal Artifact Correction for Artifact Reduction in MRI: Experimental Sequence Optimization for Orthopaedic Tumor Endoprostheses and Clinical Application. PLoS ONE, 2015, 10, e0124922.	2.5	28
144	Association of MRS-Based Vertebral Bone Marrow Fat Fraction with Bone Strength in a Human In Vitro Model. Journal of Osteoporosis, 2015, 2015, 1-8.	0.5	36

#	ARTICLE	IF	CITATIONS
145	A reference database of cartilage 3T MRI T2 values in knees without diagnostic evidence of cartilage degeneration: data from the osteoarthritis initiative. <i>Osteoarthritis and Cartilage</i> , 2015, 23, 897-905.	1.3	44
146	Prediction of Vertebral Failure Load by Using X-Ray Vector Radiographic Imaging. <i>Radiology</i> , 2015, 275, 553-561.	7.3	10
147	Characterizing trabecular bone structure for assessing vertebral fracture risk on volumetric quantitative computed tomography. , 2015, 9417, .		4
148	MR-based trabecular bone microstructure is not altered in subjects with indolent systemic mastocytosis. <i>Clinical Imaging</i> , 2015, 39, 886-889.	1.5	0
149	Local Staging of Soft-Tissue Sarcoma: Emphasis on Assessment of Neurovascular Encasementâ€”Value of MR Imaging in 174 Confirmed Cases. <i>Radiology</i> , 2015, 275, 501-509.	7.3	39
150	Relationship of unilateral total hip arthroplasty (THA) to contralateral and ipsilateral knee joint degeneration â€” a longitudinal 3T MRI study from the Osteoarthritis Initiative (OAI). <i>Osteoarthritis and Cartilage</i> , 2015, 23, 1144-1153.	1.3	26
151	3.0 T MR imaging of the ankle: Axial traction for morphological cartilage evaluation, quantitative T2 mapping and cartilage diffusion imagingâ€”A preliminary study. <i>European Journal of Radiology</i> , 2015, 84, 1546-1554.	2.6	14
152	Bilateral cartilage T2 mapping 9 years after Mega-OATS implantation at the knee: a quantitative 3T MRI study. <i>Osteoarthritis and Cartilage</i> , 2015, 23, 2119-2128.	1.3	23
153	A reference database of cartilage T2 values in knees without cartilage degeneration, and differences in cartilage T2 by demographics: Data from the osteoarthritis initiative. <i>Osteoarthritis and Cartilage</i> , 2015, 23, A290-A291.	1.3	0
154	Volumetric femoral BMD, bone geometry, and serum sclerostin levels differ between type 2 diabetic postmenopausal women with and without fragility fractures. <i>Osteoporosis International</i> , 2015, 26, 1283-1293.	3.1	54
155	Assessment of whole spine vertebral bone marrow fat using chemical shiftâ€”encoding based waterâ€”fat MRI. <i>Journal of Magnetic Resonance Imaging</i> , 2015, 42, 1018-1023.	3.4	82
156	Osteoporosis imaging: effects of bone preservation on MDCT-based trabecular bone microstructure parameters and finite element models. <i>BMC Medical Imaging</i> , 2015, 15, 22.	2.7	17
157	Cartilage Repair Surgery: Outcome Evaluation by Using Noninvasive Cartilage Biomarkers Based on Quantitative MRI Techniques?. <i>BioMed Research International</i> , 2014, 2014, 1-17.	1.9	46
158	Evaluation of an iterative modelâ€”based reconstruction algorithm for low-tube-voltage (80kVp) computed tomography angiography. <i>Journal of Medical Imaging</i> , 2014, 1, 033501.	1.5	17
159	Bone Mineral Density Values Derived from Routine Lumbar Spine Multidetector Row CT Predict Osteoporotic Vertebral Fractures and Screw Loosening. <i>American Journal of Neuroradiology</i> , 2014, 35, 1628-1633.	2.4	74
160	Predicting the biomechanical strength of proximal femur specimens with Minkowski functionals and support vector regression. , 2014, 9038, .		1
161	Improving bone strength prediction in human proximal femur specimens through geometrical characterization of trabecular bone microarchitecture and support vector regression. <i>Journal of Electronic Imaging</i> , 2014, 23, 013013.	0.9	28
162	Trabecular bone structure analysis of the spine using clinical MDCT: can it predict vertebral bone strength?. <i>Journal of Bone and Mineral Metabolism</i> , 2014, 32, 56-64.	2.7	26

#	ARTICLE	IF	CITATIONS
163	Emerging Research on Bone Health Using High-Resolution CT and MRI. <i>Current Radiology Reports</i> , 2014, 2, 1.	1.4	3
164	Automatic detection of osteoporotic vertebral fractures in routine thoracic and abdominal MDCT. <i>European Radiology</i> , 2014, 24, 872-880.	4.5	31
165	Prediction of bone strength by $\frac{1}{4}$ CT and MDCT-based finite-element-models: How much spatial resolution is needed?. <i>European Journal of Radiology</i> , 2014, 83, e36-e42.	2.6	36
166	Magnetic resonance perfusion and diffusion imaging characteristics of transient bone marrow edema, avascular necrosis and subchondral insufficiency fractures of the proximal femur. <i>European Journal of Radiology</i> , 2014, 83, 1862-1869.	2.6	35
167	Bone marrow fat quantification in the presence of trabecular bone: Initial comparison between water-fat imaging and single-voxel MRS. <i>Magnetic Resonance in Medicine</i> , 2014, 71, 1158-1165.	3.0	127
168	Early Changes of Trabecular Bone Structure in Asymptomatic Subjects With Knee Malalignment. <i>Journal of Computer Assisted Tomography</i> , 2014, 38, 137-141.	0.9	6
169	Correlation of X-Ray Dark-Field Radiography to Mechanical Sample Properties. <i>Microscopy and Microanalysis</i> , 2014, 20, 1528-1533.	0.4	10
170	Correlation of X-Ray Vector Radiography to Bone Micro-Architecture. <i>Scientific Reports</i> , 2014, 4, 3695.	3.3	29
171	Cortical and trabecular bone structure analysis at the distal radius—prediction of biomechanical strength by DXA and MRI. <i>Journal of Bone and Mineral Metabolism</i> , 2013, 31, 212-221.	2.7	20
172	Scaling relations between trabecular bone volume fraction and microstructure at different skeletal sites. <i>Bone</i> , 2013, 57, 377-383.	2.9	9
173	Change assessment for CT spine imaging. , 2013, , .		1
174	Bone mineral density measurements of the proximal femur from routine contrast-enhanced MDCT data sets correlate with dual-energy X-ray absorptiometry. <i>European Radiology</i> , 2013, 23, 505-512.	4.5	24
175	Correlation of magnetic resonance imaging-based knee cartilage T2 measurements and focal knee lesions with body mass index: Thirty-six-month followup data from a longitudinal, observational multicenter study. <i>Arthritis Care and Research</i> , 2013, 65, 23-33.	3.4	47
176	Increased cortical porosity in type 2 diabetic postmenopausal women with fragility fractures. <i>Journal of Bone and Mineral Research</i> , 2013, 28, 313-324.	2.8	369
177	Focal knee lesions in knee pairs of asymptomatic and symptomatic subjects with OA risk factors—Data from the Osteoarthritis Initiative. <i>European Journal of Radiology</i> , 2013, 82, e367-e373.	2.6	10
178	Elevated cartilage T2 and increased severity of cartilage defects at baseline are associated with the development of knee pain over 7 years. <i>Osteoarthritis and Cartilage</i> , 2013, 21, S185-S186.	1.3	2
179	Cartilage and meniscal T2 relaxation time as non-invasive biomarker for knee osteoarthritis and cartilage repair procedures. <i>Osteoarthritis and Cartilage</i> , 2013, 21, 1474-1484.	1.3	159
180	Predicting the biomechanical strength of proximal femur specimens through high dimensional geometric features and support vector regression. , 2013, 8672, .		0

#	ARTICLE	IF	CITATIONS
181	Impact of Specific Training in Detecting Osteoporotic Vertebral Fractures on Routine Chest Radiographs. <i>RoFo Fortschritte Auf Dem Gebiet Der Rontgenstrahlen Und Der Bildgebenden Verfahren</i> , 2013, 185, 1074-1080.	1.3	10
182	Association of Frequent Knee Bending Activity With Focal Knee Lesions Detected With 3T Magnetic Resonance Imaging: Data From the Osteoarthritis Initiative. <i>Arthritis Care and Research</i> , 2013, 65, 1441-1448.	3.4	24
183	Association of Metabolic Risk Factors With Cartilage Degradation Assessed by T2 Relaxation Time at the Knee: Data From the Osteoarthritis Initiative. <i>Arthritis Care and Research</i> , 2013, 65, 1942-1950.	3.4	64
184	Bone marrow fat composition as a novel imaging biomarker in postmenopausal women with prevalent fragility fractures. <i>Journal of Bone and Mineral Research</i> , 2013, 28, 1721-1728.	2.8	272
185	Coherent Superposition in Grating-Based Directional Dark-Field Imaging. <i>PLoS ONE</i> , 2013, 8, e61268.	2.5	24
186	High-Resolution Bone Imaging for Osteoporosis Diagnostics and Therapy Monitoring Using Clinical MDCT and MRI. <i>Current Medicinal Chemistry</i> , 2013, 20, 4844-4852.	2.4	23
187	Effects of Unloading on Knee Articular Cartilage T1rho and T2 Magnetic Resonance Imaging Relaxation Times: A Case Series. <i>Journal of Orthopaedic and Sports Physical Therapy</i> , 2012, 42, 511-520.	3.5	65
188	Application of anisotropic structure measures for the classification of $\mu$ -CT images of human trabecular bone. <i>Proceedings of SPIE</i> , 2012, , .	0.8	0
189	Similarities and differences in the mass-structure scaling relations of the trabecular bone taken from different locations in the femur. , 2012, , .		0
190	Assessment of global morphological and topological changes in trabecular structure under the bone resorption process. , 2012, , .		0
191	Predicting the biomechanical strength of proximal femur specimens with bone mineral density features and support vector regression. <i>Proceedings of SPIE</i> , 2012, , .	0.8	1
192	Reproducibility of Trabecular Bone Structure Measurements of the Distal Radius at 1.5 and 3.0 T Magnetic Resonance Imaging. <i>Journal of Computer Assisted Tomography</i> , 2012, 36, 623-626.	0.9	15
193	Characterization of the regional distribution of skeletal muscle adipose tissue in type 2 diabetes using chemical shift-based water/fat separation. <i>Journal of Magnetic Resonance Imaging</i> , 2012, 35, 899-907.	3.4	103
194	Converted Lumbar BMD Values Derived from Sagittal Reformations of Contrast-Enhanced MDCT Predict Incidental Osteoporotic Vertebral Fractures. <i>Calcified Tissue International</i> , 2012, 90, 481-487.	3.1	53
195	Obesity increases the prevalence and severity of focal knee abnormalities diagnosed using 3T MRI in middle-aged subjectsâ€”data from the Osteoarthritis Initiative. <i>Skeletal Radiology</i> , 2012, 41, 633-641.	2.0	78
196	Comparison of clinical semi-quantitative assessment of muscle fat infiltration with quantitative assessment using chemical shift-based water/fat separation in MR studies of the calf of post-menopausal women. <i>European Radiology</i> , 2012, 22, 1592-1600.	4.5	58
197	Baseline mean and heterogeneity of MR cartilage T2 are associated with morphologic degeneration of cartilage, meniscus, and bone marrow over 3years â€” data from the Osteoarthritis Initiative. <i>Osteoarthritis and Cartilage</i> , 2012, 20, 727-735.	1.3	125
198	Does vertebral bone marrow fat content correlate with abdominal adipose tissue, lumbar spine bone mineral density, and blood biomarkers in women with type 2 diabetes mellitus?. <i>Journal of Magnetic Resonance Imaging</i> , 2012, 35, 117-124.	3.4	196

#	ARTICLE	IF	CITATIONS
199	Changes in knee cartilage T2 values over 24 months in subjects with and without risk factors for knee osteoarthritis and their association with focal knee lesions at baseline: Data from the osteoarthritis initiative. <i>Journal of Magnetic Resonance Imaging</i> , 2012, 35, 370-378.	3.4	58
200	Association of magnetic resonance imaging-based knee cartilage T2 measurements and focal knee lesions with knee pain: Data from the Osteoarthritis Initiative. <i>Arthritis Care and Research</i> , 2012, 64, 248-255.	3.4	96
201	CT-Guided Biopsy of Bone and Soft-Tissue Lesions: Role of On-Site Immediate Cytologic Evaluation. <i>Journal of Vascular and Interventional Radiology</i> , 2011, 22, 1024-1030.	0.5	20
202	Texture analysis of cartilage T2 maps: individuals with risk factors for OA have higher and more heterogeneous knee cartilage MR T2 compared to normal controls - data from the osteoarthritis initiative. <i>Arthritis Research and Therapy</i> , 2011, 13, R153.	3.5	105
203	BMD measurements of the spine derived from sagittal reformations of contrast-enhanced MDCT without dedicated software. <i>European Journal of Radiology</i> , 2011, 80, e140-e145.	2.6	55
204	387 CARTILAGE T2 RELAXATION TIME MEASUREMENTS AT THE KNEE ARE ASSOCIATED WITH METABOLIC SYNDROME AND LIFESTYLE FACTORS. <i>Osteoarthritis and Cartilage</i> , 2011, 19, S178-S179.	1.3	0
205	A novel fast knee cartilage segmentation technique for T2 measurements at MR imaging - data from the Osteoarthritis Initiative. <i>Osteoarthritis and Cartilage</i> , 2011, 19, 984-989.	1.3	49
206	Meniscal T1rho and T2 measured with 3.0T MRI increases directly after running a marathon. <i>Skeletal Radiology</i> , 2011, 40, 725-735.	2.0	59
207	Generation of an atlas of the proximal femur and its application to trabecular bone analysis. <i>Magnetic Resonance in Medicine</i> , 2011, 66, 1181-1191.	3.0	14
208	Physical activity is associated with magnetic resonance imaging-based knee cartilage T2 measurements in asymptomatic subjects with and those without osteoarthritis risk factors. <i>Arthritis and Rheumatism</i> , 2011, 63, 2248-2256.	6.7	76
209	MR T2 Relaxation Time Measurements for Cartilage and Menisci. , 2011, , 145-158.		0
210	Articular Cartilage in the Knee: Current MR Imaging Techniques and Applications in Clinical Practice and Research. <i>Radiographics</i> , 2011, 31, 37-61.	3.3	388
211	Automated 3D trabecular bone structure analysis of the proximal femur-prediction of biomechanical strength by CT and DXA. <i>Osteoporosis International</i> , 2010, 21, 1553-1564.	3.1	66
212	417 THE SPATIAL DISTRIBUTION OF CARTILAGE MR T2 IN A SUBSET OF THE INCIDENCE AND CONTROL COHORTS OF THE OSTEOARTHRITIS INITIATIVE. <i>Osteoarthritis and Cartilage</i> , 2010, 18, S185.	1.3	0
213	425 36 MONTH FOLLOW-UP OF 3T MRI KNEE CARTILAGE T2 MEASUREMENTS IN INDIVIDUALS FROM THE OAI INCIDENCE AND CONTROL COHORT. <i>Osteoarthritis and Cartilage</i> , 2010, 18, S189-S190.	1.3	0
214	Proximal Femur Specimens: Automated 3D Trabecular Bone Mineral Density Analysis at Multidetector CT-Correlation with Biomechanical Strength Measurement. <i>Radiology</i> , 2008, 247, 472-481.	7.3	45
215	Vertebral Strength Prediction of a Patient-Specific Functional Spinal Unit - A Finite-Element Study. , 0, , ,		0
216	Level-Specific Volumetric BMD Threshold Values for the Prediction of Incident Vertebral Fractures Using Opportunistic QCT: A Case-Control Study. <i>Frontiers in Endocrinology</i> , 0, 13, .	3.5	14

#	ARTICLE	IF	CITATIONS
217	Finite Element Analysis of Osteoporotic and Osteoblastic Vertebrae and Its Association With the Proton Density Fat Fraction From Chemical Shift Encoding-Based Water-Fat MRI – A Preliminary Study. <i>Frontiers in Endocrinology</i> , 0, 13, .	3.5	2
218	Validation of a Patient-Specific Musculoskeletal Model for Lumbar Load Estimation Generated by an Automated Pipeline From Whole Body CT. <i>Frontiers in Bioengineering and Biotechnology</i> , 0, 10, .	4.1	5