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	Articular Cartilage in the Knee: Current MR Imaging Techniques and Applications in Clinical Practice and Research<sup />. Radiographics, 2011, 31, 37-61.	3.3	388
2	Increased cortical porosity in type 2 diabetic postmenopausal women with fragility fractures. Journal of Bone and Mineral Research, 2013, 28, 313-324.	2.8	369
3	Bone marrow fat composition as a novel imaging biomarker in postmenopausal women with prevalent fragility fractures. Journal of Bone and Mineral Research, 2013, 28, 1721-1728.	2.8	272
4	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?. Journal of Magnetic Resonance Imaging, 2012, 35, 117-124.	3.4	196
5	Quantitative MRI and spectroscopy of bone marrow. Journal of Magnetic Resonance Imaging, 2018, 47, 332-353.	3.4	185
6	Cartilage and meniscal T2 relaxation time as non-invasive biomarker for knee osteoarthritis and cartilage repair procedures. Osteoarthritis and Cartilage, 2013, 21, 1474-1484.	1.3	159
7	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
8	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. Osteoarthritis and Cartilage, 2012, 20, 727-735.	1.3	125
9	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
10	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. Arthritis Research and Therapy, 2011, 13, R153.	3.5	105
11	Characterization of the regional distribution of skeletal muscle adipose tissue in type 2 diabetes using chemical shiftâ€based water/fat separation. Journal of Magnetic Resonance Imaging, 2012, 35, 899-907.	3.4	103
12	Improved prediction of incident vertebral fractures using opportunistic QCT compared to DXA. European Radiology, 2019, 29, 4980-4989.	4.5	99
13	Association of magnetic resonance imagingâ€“based knee cartilage T2 measurements and focal knee lesions with knee pain: Data from the Osteoarthritis Initiative. Arthritis Care and Research, 2012, 64, 248-255.	3.4	96
14	Assessment of whole spine vertebral bone marrow fat using chemical shiftâ€encoding based waterâ€fat MRI. Journal of Magnetic Resonance Imaging, 2015, 42, 1018-1023.	3.4	82
15	Obesity increases the prevalence and severity of focal knee abnormalities diagnosed using 3T MRI in middle-aged subjectsâ€”data from the Osteoarthritis Initiative. Skeletal Radiology, 2012, 41, 633-641.	2.0	78
16	Physical activity is associated with magnetic resonance imagingâ€“based knee cartilage T2 measurements in asymptomatic subjects with and those without osteoarthritis risk factors. Arthritis and Rheumatism, 2011, 63, 2248-2256.	6.7	76
17	Bone Mineral Density Values Derived from Routine Lumbar Spine Multidetector Row CT Predict Osteoporotic Vertebral Fractures and Screw Loosening. American Journal of Neuroradiology, 2014, 35, 1628-1633.	2.4	74
18	Opportunistic osteoporosis screening in multi-detector CT images via local classification of textures. Osteoporosis International, 2019, 30, 1275-1285.	3.1	72

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19	A Vertebral Segmentation Dataset with Fracture Grading. Radiology: Artificial Intelligence, 2020, 2, e190138.	5.8	71
20	MR-Based Assessment of Bone Marrow Fat in Osteoporosis, Diabetes, and Obesity. Frontiers in Endocrinology, 2016, 7, 74.	3.5	70
21	MR-based assessment of body fat distribution and characteristics. European Journal of Radiology, 2016, 85, 1512-1518.	2.6	68
22	X-ray-based quantitative osteoporosis imaging at the spine. Osteoporosis International, 2020, 31, 233-250.	3.1	68
23	Automated 3D trabecular bone structure analysis of the proximal femurâ€"prediction of biomechanical strength by CT and DXA. Osteoporosis International, 2010, 21, 1553-1564.	3.1	66
24	Association of paraspinal muscle waterâ€"fat MRI-based measurements with isometric strength measurements. European Radiology, 2019, 29, 599-608.	4.5	66
25	Effects of Unloading on Knee Articular Cartilage T1rho and T2 Magnetic Resonance Imaging Relaxation Times: A Case Series. Journal of Orthopaedic and Sports Physical Therapy, 2012, 42, 511-520.	3.5	65
26	Anatomical Variation of Age-Related Changes in Vertebral Bone Marrow Composition Using Chemical Shift Encoding-Based Waterâ€"Fat Magnetic Resonance Imaging. Frontiers in Endocrinology, 2018, 9, 141.	3.5	65
27	Association of Metabolic Risk Factors With Cartilage Degradation Assessed by T2 Relaxation Time at the Knee: Data From the Osteoarthritis Initiative. Arthritis Care and Research, 2013, 65, 1942-1950.	3.4	64
28	<scp>MRI</scp>â€Based Quantitative Osteoporosis Imaging at the Spine and Femur. Journal of Magnetic Resonance Imaging, 2021, 54, 12-35.	3.4	61
29	Meniscal T1rho and T2 measured with 3.0T MRI increases directly after running a marathon. Skeletal Radiology, 2011, 40, 725-735.	2.0	59
30	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. European Radiology, 2012, 22, 1592-1600.	4.5	58
31	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. Journal of Magnetic Resonance Imaging, 2012, 35, 370-378.	3.4	58
32	BMD measurements of the spine derived from sagittal reformations of contrast-enhanced MDCT without dedicated software. European Journal of Radiology, 2011, 80, e140-e145.	2.6	55
33	Volumetric femoral BMD, bone geometry, and serum sclerostin levels differ between type 2 diabetic postmenopausal women with and without fragility fractures. Osteoporosis International, 2015, 26, 1283-1293.	3.1	54
34	Converted Lumbar BMD Values Derived from Sagittal Reformations of Contrast-Enhanced MDCT Predict Incidental Osteoporotic Vertebral Fractures. Calcified Tissue International, 2012, 90, 481-487.	3.1	53
35	The need forT₂correction 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
36	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

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37	Correction of phase errors in quantitative waterâ€“fat imaging using a monopolar timeâ€interleaved multiâ€echo gradient echo sequence. Magnetic Resonance in Medicine, 2017, 78, 984-996.	3.0	50
38	Automatic opportunistic osteoporosis screening in routine CT: improved prediction of patients with prevalent vertebral fractures compared to DXA. European Radiology, 2021, 31, 6069-6077.	4.5	50
39	A novel fast knee cartilage segmentation technique for T2 measurements at MR imaging â€“ data from the Osteoarthritis Initiative. Osteoarthritis and Cartilage, 2011, 19, 984-989.	1.3	49
40	Correlation of magnetic resonance imagingâ€“based knee cartilage T2 measurements and focal knee lesions with body mass index: Thirtyâ€sixâ€“month followup data from a longitudinal, observational multicenter study. Arthritis Care and Research, 2013, 65, 23-33.	3.4	47
41	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?. European Radiology, 2017, 27, 5261-5271.	4.5	47
42	Cartilage Repair Surgery: Outcome Evaluation by Using Noninvasive Cartilage Biomarkers Based on Quantitative MRI Techniques?. BioMed Research International, 2014, 2014, 1-17.	1.9	46
43	Modeling of T₂* decay in vertebral bone marrow fat quantification. NMR in Biomedicine, 2015, 28, 1535-1542.	2.8	46
44	Measurement of vertebral bone marrow proton density fat fraction in children using quantitative waterâ€“fat MRI. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2017, 30, 449-460.	2.0	46
45	Bone mineral density measurements derived from dual-layer spectral CT enable opportunistic screening for osteoporosis. European Radiology, 2019, 29, 6355-6363.	4.5	46
46	Proximal Femur Specimens: Automated 3D Trabecular Bone Mineral Density Analysis at Multidetector CTâ€”Correlation with Biomechanical Strength Measurement. Radiology, 2008, 247, 472-481.	7.3	45
47	A reference database of cartilage 3ÂT MRI T2 values in knees without diagnostic evidence of cartilage degeneration: data from the osteoarthritis initiative. Osteoarthritis and Cartilage, 2015, 23, 897-905.	1.3	44
48	Local Staging of Soft-Tissue Sarcoma: Emphasis on Assessment of Neurovascular Encasementâ€”Value of MR Imaging in 174 Confirmed Cases. Radiology, 2015, 275, 501-509.	7.3	39
49	Associations Between Lumbar Vertebral Bone Marrow and Paraspinal Muscle Fat Compositionsâ€”An Investigation by Chemical Shift Encoding-Based Water-Fat MRI. Frontiers in Endocrinology, 2018, 9, 563.	3.5	39
50	Diagnostic Value of CT Arthrography for Evaluation of Osteochondral Lesions at the Ankle. BioMed Research International, 2016, 2016, 1-11.	1.9	38
51	Prediction of bone strength by Î¼CT and MDCT-based finite-element-models: How much spatial resolution is needed?. European Journal of Radiology, 2014, 83, e36-e42.	2.6	36
52	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
53	Bone Mineral Density Estimations From Routine Multidetector Computed Tomography. Journal of Computer Assisted Tomography, 2017, 41, 217-223.	0.9	36
54	Magnetic resonance perfusion and diffusion imaging characteristics of transient bone marrow edema, avascular necrosis and subchondral insufficiency fractures of the proximal femur. European Journal of Radiology, 2014, 83, 1862-1869.	2.6	35

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55	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. European Radiology, 2021, 31, 4680-4689.	4.5	35
56	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
57	Association of proton density fat fraction in adipose tissue with imaging-based and anthropometric obesity markers in adults. International Journal of Obesity, 2018, 42, 175-182.	3.4	34
58	Phaseâ€field boundary conditions for the voxel finite cell method: Surfaceâ€free stress analysis of CTâ€based bone structures. International Journal for Numerical Methods in Biomedical Engineering, 2017, 33, e2880.	2.1	33
59	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
60	Bone mineral density measurements in vertebral specimens and phantoms using dual-layer spectral computed tomography. Scientific Reports, 2017, 7, 17519.	3.3	32
61	Automatic detection of osteoporotic vertebral fractures in routine thoracic and abdominal MDCT. European Radiology, 2014, 24, 872-880.	4.5	31
62	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
63	Texture analysis of vertebral bone marrow using chemical shift encodingâ€“based water-fat MRI: a feasibility study. Osteoporosis International, 2019, 30, 1265-1274.	3.1	30
64	Correlation of X-Ray Vector Radiography to Bone Micro-Architecture. Scientific Reports, 2014, 4, 3695.	3.3	29
65	Improving bone strength prediction in human proximal femur specimens through geometrical characterization of trabecular bone microarchitecture and support vector regression. Journal of Electronic Imaging, 2014, 23, 013013.	0.9	28
66	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
67	Multiâ€level hpâ€finite cell method for embedded interface problems with application in biomechanics. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e2951.	2.1	28
68	Accelerating anatomical 2D turbo spin echo imaging of the ankle using compressed sensing. European Journal of Radiology, 2019, 118, 277-284.	2.6	28
69	Feasibility of opportunistic osteoporosis screening in routine contrast-enhanced multi detector computed tomography (MDCT) using texture analysis. Osteoporosis International, 2018, 29, 825-835.	3.1	27
70	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
71	Trabecular bone structure analysis of the spine using clinical MDCT: can it predict vertebral bone strength?. Journal of Bone and Mineral Metabolism, 2014, 32, 56-64.	2.7	26
72	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). Osteoarthritis and Cartilage, 2015, 23, 1144-1153.	1.3	26

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73	Improved Brachial Plexus Visualization Using an Adiabatic iMSDE-Prepared STIR 3D TSE. Clinical Neuroradiology, 2019, 29, 631-638.	1.9	25
74	Bone mineral density measurements of the proximal femur from routine contrast-enhanced MDCT data sets correlate with dual-energy X-ray absorptiometry. European Radiology, 2013, 23, 505-512.	4.5	24
75	Association of Frequent Knee Bending Activity With Focal Knee Lesions Detected With 3T Magnetic Resonance Imaging: Data From the Osteoarthritis Initiative. Arthritis Care and Research, 2013, 65, 1441-1448.	3.4	24
76	Coherent Superposition in Grating-Based Directional Dark-Field Imaging. PLoS ONE, 2013, 8, e61268.	2.5	24
77	Multidetector Computed Tomography Imaging. Journal of Computer Assisted Tomography, 2018, 42, 441-447.	0.9	24
78	Bilateral cartilage T2 mapping 9 years after Mega-OATS implantation at the knee: a quantitative 3T MRI study. Osteoarthritis and Cartilage, 2015, 23, 2119-2128.	1.3	23
79	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
80	Quantitative magnetic resonance imaging of the upper trapezius muscles â€“ assessment of myofascial trigger points in patients with migraine. Journal of Headache and Pain, 2019, 20, 8.	6.0	23
81	Differentiating supraclavicular from gluteal adipose tissue based on simultaneous PDFF and T₂* mapping using a 20â€echo gradientâ€echo acquisition. Journal of Magnetic Resonance Imaging, 2019, 50, 424-434.	3.4	23
82	High-Resolution Bone Imaging for Osteoporosis Diagnostics and Therapy Monitoring Using Clinical MDCT and MRI. Current Medicinal Chemistry, 2013, 20, 4844-4852.	2.4	23
83	Distinguishing Benign and Malignant Vertebral Fractures Using CT and MRI. Seminars in Musculoskeletal Radiology, 2016, 20, 345-352.	0.7	22
84	Thigh muscle segmentation of chemical shift encoding-based water-fat magnetic resonance images: The reference database MyoSegmenTUM. PLoS ONE, 2018, 13, e0198200.	2.5	22
85	Paraspinal Muscle DTI Metrics Predict Muscle Strength. Journal of Magnetic Resonance Imaging, 2019, 50, 816-823.	3.4	22
86	Effect of the intervertebral disc on vertebral bone strength prediction: a finite-element study. Spine Journal, 2020, 20, 665-671.	1.3	22
87	A computed tomography vertebral segmentation dataset with anatomical variations and multi-vendor scanner data. Scientific Data, 2021, 8, 284.	5.3	22
88	Osteoporosis Is the Most Important Risk Factor for Odontoid Fractures in the Elderly. Journal of Bone and Mineral Research, 2017, 32, 1582-1588.	2.8	21
89	Gender- and Age-Related Changes in Trunk Muscle Composition Using Chemical Shift Encoding-Based Waterâ€“Fat MRI. Nutrients, 2018, 10, 1972.	4.1	21
90	Three-material decomposition with dual-layer spectral CT compared to MRI for the detection of bone marrow edema in patients with acute vertebral fractures. Skeletal Radiology, 2018, 47, 1533-1540.	2.0	21

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91	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
92	Opportunistic Osteoporosis Screening Reveals Low Bone Density in Patients With Screw Loosening After Lumbar Semi-Rigid Instrumentation: A Case-Control Study. Frontiers in Endocrinology, 2020, 11, 552719.	3.5	21
93	CT-Guided Biopsy of Bone and Soft-Tissue Lesions: Role of On-Site Immediate Cytologic Evaluation. Journal of Vascular and Interventional Radiology, 2011, 22, 1024-1030.	0.5	20
94	Cortical and trabecular bone structure analysis at the distal radiusâ€"prediction of biomechanical strength by DXA and MRI. Journal of Bone and Mineral Metabolism, 2013, 31, 212-221.	2.7	20
95	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
96	Effects of dose reduction on bone strength prediction using finite element analysis. Scientific Reports, 2016, 6, 38441.	3.3	20
97	On the sensitivity of quantitative susceptibility mapping for measuring trabecular bone density. Magnetic Resonance in Medicine, 2019, 81, 1739-1754.	3.0	20
98	Regional analysis of age-related local bone loss in the spine of a healthy population using 3D voxel-based modeling. Bone, 2017, 103, 233-240.	2.9	19
99	DXA-equivalent quantification of bone mineral density using dual-layer spectral CT scout scans. European Radiology, 2019, 29, 4624-4634.	4.5	18
100	MR-based proton density fat fraction (PDFF) of the vertebral bone marrow differentiates between patients with and without osteoporotic vertebral fractures. Osteoporosis International, 2022, 33, 487-496.	3.1	18
101	B1-insensitive T2 mapping of healthy thigh muscles using a T2-prepared 3D TSE sequence. PLoS ONE, 2017, 12, e0171337.	2.5	18
102	Evaluation of an iterative modelâ€"based reconstruction algorithm for low-tube-voltage (80ÂkVp) computed tomography angiography. Journal of Medical Imaging, 2014, 1, 033501.	1.5	17
103	Osteoporosis imaging: effects of bone preservation on MDCT-based trabecular bone microstructure parameters and finite element models. BMC Medical Imaging, 2015, 15, 22.	2.7	17
104	ADC Quantification of the Vertebral Bone Marrow Water Component: Removing the Confounding Effect of Residual Fat. Magnetic Resonance in Medicine, 2017, 78, 1432-1441.	3.0	17
105	Risk of vertebral compression fractures in multiple myeloma patients. Medicine (United States), 2017, 96, e5825.	1.0	17
106	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
107	Acute infarction after mechanical thrombectomy is better delineable in virtual non-contrast compared to conventional images using a dual-layer spectral CT. Scientific Reports, 2018, 8, 9329.	3.3	16
108	Opportunistic QCT Bone Mineral Density Measurements Predicting Osteoporotic Fractures: A Use Case in a Prospective Clinical Cohort. Frontiers in Endocrinology, 2020, 11, 586352.	3.5	16

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109	Automated Opportunistic Osteoporosis Screening in Routine Computed Tomography of the Spine: Comparison With Dedicated Quantitative CT. Journal of Bone and Mineral Research, 2020, 37, 1287-1296.	2.8	16
110	Reproducibility of Trabecular Bone Structure Measurements of the Distal Radius at 1.5 and 3.0 T Magnetic Resonance Imaging. Journal of Computer Assisted Tomography, 2012, 36, 623-626.	0.9	15
111	Opportunistic osteoporosis screening: contrast-enhanced dual-layer spectral CT provides accurate measurements of vertebral bone mineral density. European Radiology, 2021, 31, 3147-3155.	4.5	15
112	Vertebral bone marrow T2* mapping using chemical shift encoding-based water-fat separation in the quantitative analysis of lumbar osteoporosis and osteoporotic fractures. Quantitative Imaging in Medicine and Surgery, 2021, 11, 3715-3725.	2.0	15
113	Generation of an atlas of the proximal femur and its application to trabecular bone analysis. Magnetic Resonance in Medicine, 2011, 66, 1181-1191.	3.0	14
114	3.0 T MR imaging of the ankle: Axial traction for morphological cartilage evaluation, quantitative T2 mapping and cartilage diffusion imagingâ€"A preliminary study. European Journal of Radiology, 2015, 84, 1546-1554.	2.6	14
115	Imaging of the degenerative spine using a sagittal T2-weighted DIXON turbo spin-echo sequence. European Journal of Radiology, 2020, 131, 109204.	2.6	14
116	Vertebral Bone Marrow Heterogeneity Using Texture Analysis of Chemical Shift Encoding-Based MRI: Variations in Age, Sex, and Anatomical Location. Frontiers in Endocrinology, 2020, 11, 555931.	3.5	14
117	Level-Specific Volumetric BMD Threshold Values for the Prediction of Incident Vertebral Fractures Using Opportunistic QCT: A Case-Control Study. Frontiers in Endocrinology, 0, 13, .	3.5	14
118	X-ray Dark-Field Vector Radiographyâ€"A Novel Technique for Osteoporosis Imaging. Journal of Computer Assisted Tomography, 2015, 39, 286-289.	0.9	13
119	Influence of Contrast Media on Bone Mineral Density (BMD) Measurements from Routine Contrast-Enhanced MDCT Datasets using a Phantom-less BMD Measurement Tool. RoFo Fortschritte Auf Dem Gebiet Der Rontgenstrahlen Und Der Bildgebenden Verfahren, 2017, 189, 537-543.	1.3	13
120	Assessment of paraspinal muscle characteristics, lumbar BMD, and their associations in routine multi-detector CT of patients with and without osteoporotic vertebral fractures. European Journal of Radiology, 2020, 125, 108867.	2.6	13
121	Effects of virtual tube current reduction and sparse sampling on MDCT-based femoral BMD measurements. Osteoporosis International, 2018, 29, 2685-2692.	3.1	11
122	Magnetic Resonance Imaging of Adipose Tissue in Metabolic Dysfunction. RoFo Fortschritte Auf Dem Gebiet Der Rontgenstrahlen Und Der Bildgebenden Verfahren, 2018, 190, 1121-1130.	1.3	11
123	MDCT-based Finite Element Analysis of Vertebral Fracture Risk: What Dose is Needed?. Clinical Neuroradiology, 2019, 29, 645-651.	1.9	11
124	Low-dose and sparse sampling MDCT-based femoral bone strength prediction using finite element analysis. Archives of Osteoporosis, 2020, 15, 17.	2.4	11
125	Predicting Vertebral Bone Strength Using Finite Element Analysis for Opportunistic Osteoporosis Screening in Routine Multidetector Computed Tomography Scansâ€"A Feasibility Study. Frontiers in Endocrinology, 2020, 11, 526332.	3.5	11
126	Preconditioned waterâ€fat total field inversion: Application to spine quantitative susceptibility mapping. Magnetic Resonance in Medicine, 2022, 87, 417-430.	3.0	11

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127	Automated detection of the contrast phase in MDCT by an artificial neural network improves the accuracy of opportunistic bone mineral density measurements. European Radiology, 2022, 32, 1465-1474.	4.5	11
128	Focal knee lesions in knee pairs of asymptomatic and symptomatic subjects with OA risk factorsâ€"Data from the Osteoarthritis Initiative. European Journal of Radiology, 2013, 82, e367-e373.	2.6	10
129	Impact of Specific Training in Detecting Osteoporotic Vertebral Fractures on Routine Chest Radiographs. RoFo Fortschritte Auf Dem Gebiet Der Rontgenstrahlen Und Der Bildgebenden Verfahren, 2013, 185, 1074-1080.	1.3	10
130	Correlation of X-Ray Dark-Field Radiography to Mechanical Sample Properties. Microscopy and Microanalysis, 2014, 20, 1528-1533.	0.4	10
131	Prediction of Vertebral Failure Load by Using X-Ray Vector Radiographic Imaging. Radiology, 2015, 275, 553-561.	7.3	10
132	Reliable semiquantitative wholeâ€joint MRI score for the shoulder joint: The shoulder osteoarthritis severity (SOAS) score. Journal of Magnetic Resonance Imaging, 2019, 49, e152-e163.	3.4	10
133	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
134	T2 mapping of the distal sciatic nerve in healthy subjects and patients suffering from lumbar disc herniation with nerve compression. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2020, 33, 713-724.	2.0	10
135	Scaling relations between trabecular bone volume fraction and microstructure at different skeletal sites. Bone, 2013, 57, 377-383.	2.9	9
136	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. American Journal of Sports Medicine, 2017, 45, 1990-1999.	4.2	9
137	Effect of radiation dose reduction on texture measures of trabecular bone microstructure: an in vitro study. Journal of Bone and Mineral Metabolism, 2018, 36, 323-335.	2.7	9
138	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
139	Physiological variation of the vertebral bone marrow water T2 relaxation time. NMR in Biomedicine, 2021, 34, e4439.	2.8	9
140	Quantitative Muscle MRI in Patients with Neuromuscular Diseasesâ€"Association of Muscle Proton Density Fat Fraction with Semi-Quantitative Grading of Fatty Infiltration and Muscle Strength at the Thigh Region. Diagnostics, 2021, 11, 1056.	2.6	9
141	Prediction of Incidental Osteoporotic Fractures at Vertebral-Specific Level Using 3D Non-Linear Finite Element Parameters Derived from Routine Abdominal MDCT. Diagnostics, 2021, 11, 208.	2.6	9
142	Epidemiology and reporting of osteoporotic vertebral fractures in patients with long-term hospital records based on routine clinical CT imaging. Osteoporosis International, 2022, 33, 685-694.	3.1	9
143	Effect of Low-Dose MDCT and Iterative Reconstruction on Trabecular Bone Microstructure Assessment. PLoS ONE, 2016, 11, e0159903.	2.5	8
144	Age- and BMI-related variations of fat distribution in sacral and lumbar bone marrow and their association with local muscle fat content. Scientific Reports, 2020, 10, 9686.	3.3	8

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145	Age- and gender-related variations of cervical muscle composition using chemical shift encoding-based water-fat MRI. European Journal of Radiology, 2020, 125, 108904.	2.6	8
146	Texture Features of Proton Density Fat Fraction Maps from Chemical Shift Encoding-Based MRI Predict Paraspinal Muscle Strength. Diagnostics, 2021, 11, 239.	2.6	8
147	Texture Analysis Using CT and Chemical Shift Encoding-Based Water-Fat MRI Can Improve Differentiation Between Patients With and Without Osteoporotic Vertebral Fractures. Frontiers in Endocrinology, 2021, 12, 778537.	3.5	8
148	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
149	Finite Element Analysis-Based Vertebral Bone Strength Prediction Using MDCT Data: How Low Can We Go?. Frontiers in Endocrinology, 2020, 11, 442.	3.5	7
150	Radiation dose reduction for CT-guided intrathecal nusinersen administration in adult patients with spinal muscular atrophy. Scientific Reports, 2020, 10, 3406.	3.3	7
151	Regional variation of thigh muscle fat infiltration in patients with neuromuscular diseases compared to healthy controls. Quantitative Imaging in Medicine and Surgery, 2021, 11, 2610-2621.	2.0	7
152	Gender-, Age- and Region-Specific Characterization of Vertebral Bone Microstructure Through Automated Segmentation and 3D Texture Analysis of Routine Abdominal CT. Frontiers in Endocrinology, 2021, 12, 792760.	3.5	7
153	Early Changes of Trabecular Bone Structure in Asymptomatic Subjects With Knee Malalignment. Journal of Computer Assisted Tomography, 2014, 38, 137-141.	0.9	6
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