Gerrit Harry van Lenthe

List of Publications by Citations

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140
papers

5,957
citations

4.3
ext. papers

6,567
ext. citations

4.3
avg, IF

74
g-index

5.55
L-index

#	Paper	IF	Citations
140	Effects of mechanical forces on maintenance and adaptation of form in trabecular bone. <i>Nature</i> , 2000 , 405, 704-6	50.4	828
139	Engineering craniofacial scaffolds. Orthodontics and Craniofacial Research, 2005, 8, 162-73	3	231
138	In vivo behavior of calcium phosphate scaffolds with four different pore sizes. <i>Biomaterials</i> , 2006 , 27, 5186-98	15.6	219
137	Bone structure at the distal radius during adolescent growth. <i>Journal of Bone and Mineral Research</i> , 2009 , 24, 1033-42	6.3	198
136	Correlation between pre-operative periprosthetic bone density and post-operative bone loss in THA can be explained by strain-adaptive remodelling. <i>Journal of Biomechanics</i> , 1999 , 32, 695-703	2.9	182
135	Nondestructive micro-computed tomography for biological imaging and quantification of scaffold-bone interaction in vivo. <i>Biomaterials</i> , 2007 , 28, 2479-90	15.6	164
134	Contribution of in vivo structural measurements and load/strength ratios to the determination of forearm fracture risk in postmenopausal women. <i>Journal of Bone and Mineral Research</i> , 2007 , 22, 1442-	8 ^{6.3}	156
133	Increase in bone volume fraction precedes architectural adaptation in growing bone. <i>Bone</i> , 2001 , 28, 650-4	4.7	145
132	Local delivery of bisphosphonate from coated orthopedic implants increases implants mechanical stability in osteoporotic rats. <i>Journal of Biomedical Materials Research - Part A</i> , 2006 , 76, 133-43	5.4	134
131	Assessment of trabecular and cortical architecture and mechanical competence of bone by high-resolution peripheral computed tomography: comparison with transiliac bone biopsy. <i>Osteoporosis International</i> , 2010 , 21, 263-73	5.3	128
130	Synthesis and characterization of porous beta-tricalcium phosphate blocks. <i>Biomaterials</i> , 2005 , 26, 6099	9-196	124
129	Importance of individual rods and plates in the assessment of bone quality and their contribution to bone stiffness. <i>Journal of Bone and Mineral Research</i> , 2006 , 21, 586-95	6.3	110
128	A scalable multi-level preconditioner for matrix-free $\bar{\mu}$ -finite element analysis of human bone structures. <i>International Journal for Numerical Methods in Engineering</i> , 2008 , 73, 927-947	2.4	108
127	Aging, Osteocytes, and Mechanotransduction. Current Osteoporosis Reports, 2017, 15, 401-411	5.4	106
126	Frictional heating of total hip implants. Part 1: measurements in patients. <i>Journal of Biomechanics</i> , 2001 , 34, 421-8	2.9	105
125	Differential regulation of bone and body composition in male mice with combined inactivation of androgen and estrogen receptor-alpha. <i>FASEB Journal</i> , 2009 , 23, 232-40	0.9	104
124	Computational finite element bone mechanics accurately predicts mechanical competence in the human radius of an elderly population. <i>Bone</i> , 2011 , 48, 1232-8	4.7	103

123	Assessing forearm fracture risk in postmenopausal women. <i>Osteoporosis International</i> , 2010 , 21, 1161-9	5.3	95
122	Sexual dimorphism in cortical bone size and strength but not density is determined by independent and time-specific actions of sex steroids and IGF-1: evidence from pubertal mouse models. <i>Journal of Bone and Mineral Research</i> , 2010 , 25, 617-26	6.3	92
121	A fast convolution-based methodology to simulate 2-D/3-D cardiac ultrasound images. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control,</i> 2009 , 56, 404-9	3.2	87
120	Micro-computed tomography determination of glass fibre reinforced polymer meso-structure. <i>Composites Science and Technology</i> , 2006 , 66, 2016-2022	8.6	87
119	Stress shielding after total knee replacement may cause bone resorption in the distal femur. <i>Journal of Bone and Joint Surgery: British Volume</i> , 1997 , 79, 117-22		82
118	Non-invasive bone competence analysis by high-resolution pQCT: an in vitro reproducibility study on structural and mechanical properties at the human radius. <i>Bone</i> , 2009 , 44, 364-71	4.7	79
117	Evaluation of an in situ formed synthetic hydrogel as a biodegradable membrane for guided bone regeneration. <i>Clinical Oral Implants Research</i> , 2006 , 17, 426-33	4.8	75
116	Biomechanical comparison of different surface modifications for dental implants. <i>International Journal of Oral and Maxillofacial Implants</i> , 2008 , 23, 1037-46	2.8	72
115	Time-lapsed assessment of microcrack initiation and propagation in murine cortical bone at submicrometer resolution. <i>Bone</i> , 2009 , 45, 164-73	4.7	69
114	Regional, age and gender differences in architectural measures of bone quality and their correlation to bone mechanical competence in the human radius of an elderly population. <i>Bone</i> , 2009 , 45, 882-91	4.7	69
113	Specimen-specific beam models for fast and accurate prediction of human trabecular bone mechanical properties. <i>Bone</i> , 2006 , 39, 1182-9	4.7	66
112	Implant stability is affected by local bone microstructural quality. <i>Bone</i> , 2011 , 49, 473-8	4.7	62
111	Frictional heating of total hip implants. Part 2: finite element study. <i>Journal of Biomechanics</i> , 2001 , 34, 429-35	2.9	60
110	Abnormal bone microarchitecture and evidence of osteoblast dysfunction in premenopausal women with idiopathic osteoporosis. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2011 , 96, 3095-10)\$ ⁶	58
109	A novel in vivo mouse model for mechanically stimulated bone adaptationa combined experimental and computational validation study. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2008 , 11, 435-41	2.1	58
108	Tissue modulus calculated from beam theory is biased by bone size and geometry: implications for the use of three-point bending tests to determine bone tissue modulus. <i>Bone</i> , 2008 , 43, 717-23	4.7	54
107	A new route to produce starch-based fiber mesh scaffolds by wet spinning and subsequent surface modification as a way to improve cell attachment and proliferation. <i>Journal of Biomedical Materials Research - Part A</i> , 2010 , 92, 369-77	5.4	50
106	A Computer-simulation Model Relating Bone-cell Metabolism to Mechanical Adaptation of Trabecular Architecture. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2001 , 4, 433-446.	2.1 8	49

105	Load sharing and ligament strains in balanced, overstuffed and understuffed UKA. A validated finite element analysis. <i>Journal of Arthroplasty</i> , 2014 , 29, 1491-8	4.4	47
104	Speed of sound reflects Young's modulus as assessed by microstructural finite element analysis. <i>Bone</i> , 2000 , 26, 519-24	4.7	47
103	In silico biology of bone modelling and remodelling: adaptation. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2009 , 367, 2011-30	3	45
102	The discrete nature of trabecular bone microarchitecture affects implant stability. <i>Journal of Biomechanics</i> , 2012 , 45, 1060-7	2.9	36
101	The different contributions of cortical and trabecular bone to implant anchorage in a human vertebra. <i>Bone</i> , 2012 , 50, 733-8	4.7	35
100	Transmission of whole-body vibration and its effect on muscle activation. <i>Journal of Strength and Conditioning Research</i> , 2013 , 27, 2533-41	3.2	35
99	Subject-specific bone loading estimation in the human distal radius. <i>Journal of Biomechanics</i> , 2013 , 46, 759-66	2.9	34
98	The importance of murine cortical bone microstructure for microcrack initiation and propagation. <i>Bone</i> , 2011 , 49, 1186-93	4.7	34
97	Mechanical competence of bone-implant systems can accurately be determined by image-based micro-finite element analyses. <i>Archive of Applied Mechanics</i> , 2010 , 80, 513-525	2.2	30
96	Bone morphometry strongly predicts cortical bone stiffness and strength, but not toughness, in inbred mouse models of high and low bone mass. <i>Journal of Bone and Mineral Research</i> , 2008 , 23, 1194-	203	30
95	The influence of surface coatings of dicalcium phosphate (DCPD) and growth and differentiation factor-5 (GDF-5) on the stability of titanium implants in vivo. <i>Biomaterials</i> , 2006 , 27, 3988-94	15.6	30
94	Stemmed femoral knee prostheses: effects of prosthetic design and fixation on bone loss. <i>Acta Orthopaedica</i> , 2002 , 73, 630-7		30
93	Role of subject-specific musculoskeletal loading on the prediction of bone density distribution in the proximal femur. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014 , 30, 244-52	4.1	29
92	Computational analysis of primary implant stability in trabecular bone. <i>Journal of Biomechanics</i> , 2015 , 48, 807-15	2.9	29
91	3D characterization of bone strains in the rat tibia loading model. <i>Biomechanics and Modeling in Mechanobiology</i> , 2012 , 11, 403-10	3.8	29
90	Pedicled vascularized rib transfer for reconstruction of clavicle nonunions with bony defects: anatomical and biomechanical considerations. <i>Plastic and Reconstructive Surgery</i> , 2007 , 120, 173-180	2.7	29
89	Prediction of failure load using micro-finite element analysis models: Toward in vivo strength assessment. <i>Drug Discovery Today: Technologies</i> , 2006 , 3, 221-9	7.1	29
88	Age-related changes in female mouse cortical bone microporosity. <i>Bone</i> , 2018 , 113, 1-8	4.7	28

(2012-2018)

87	Mechanical Loading Differentially Affects Osteocytes in Fibulae from Lactating Mice Compared to Osteocytes in Virgin Mice: Possible Role for Lacuna Size. <i>Calcified Tissue International</i> , 2018 , 103, 675-6.	8 3 .9	27
86	Use of micro-CT-based finite element analysis to accurately quantify peri-implant bone strains: a validation in rat tibiae. <i>Biomechanics and Modeling in Mechanobiology</i> , 2012 , 11, 743-50	3.8	27
85	Multi-level patient-specific modelling of the proximal femur. A promising tool to quantify the effect of osteoporosis treatment. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2009 , 367, 2079-93	3	27
84	Screw insertion in trabecular bone causes peri-implant bone damage. <i>Medical Engineering and Physics</i> , 2016 , 38, 417-22	2.4	26
83	Stemmed femoral knee prostheses. <i>Acta Orthopaedica</i> , 2002 , 73, 630-637		25
82	Experimental and finite element analysis of the mouse caudal vertebrae loading model: prediction of cortical and trabecular bone adaptation. <i>Biomechanics and Modeling in Mechanobiology</i> , 2012 , 11, 22	1-38	24
81	Time-lapsed imaging of implant fixation failure in human femoral heads. <i>Medical Engineering and Physics</i> , 2013 , 35, 636-43	2.4	24
80	How morphology predicts mechanical properties of trabecular structures depends on intra-specimen trabecular thickness variations. <i>Journal of Biomechanics</i> , 2002 , 35, 1191-7	2.9	24
79	Hydroxyapatite particles maintain peri-implant bone mantle during osseointegration in osteoporotic bone. <i>Bone</i> , 2009 , 45, 1117-24	4.7	23
78	Glucocorticoid-induced changes in the geometry of osteoclast resorption cavities affect trabecular bone stiffness. <i>Calcified Tissue International</i> , 2013 , 92, 240-50	3.9	22
77	Peri-implant bone microstructure determines dynamic implant cut-out. <i>Medical Engineering and Physics</i> , 2013 , 35, 1442-9	2.4	22
76	Quantitative, structural, and image-based mechanical analysis of nonunion fracture repaired by genetically engineered mesenchymal stem cells. <i>Journal of Biomechanics</i> , 2010 , 43, 2315-20	2.9	22
75	Technical Note: Cortical thickness and density estimation from clinical CT using a prior thickness-density relationship. <i>Medical Physics</i> , 2016 , 43, 1945	4.4	22
74	Geometrical characterization and micro-structural modeling of short steel fiber composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2014 , 67, 171-180	8.4	21
73	Computational analyses of small endosseous implants in osteoporotic bone. <i>European Cells and Materials</i> , 2010 , 20, 58-71	4.3	21
72	The prospects of estimating trabecular bone tissue properties from the combination of ultrasound, dual-energy X-ray absorptiometry, microcomputed tomography, and microfinite element analysis. <i>Journal of Bone and Mineral Research</i> , 2001 , 16, 550-5	6.3	19
71	Mechanisms of reduced implant stability in osteoporotic bone. <i>Biomechanics and Modeling in Mechanobiology</i> , 2012 , 11, 313-23	3.8	18
70	In vivo assessment of the effect of controlled high- and low-frequency mechanical loading on peri-implant bone healing. <i>Journal of the Royal Society Interface</i> , 2012 , 9, 1697-704	4.1	18

69	Trabecular bone failure at the microstructural level. Current Osteoporosis Reports, 2006, 4, 80-6	5.4	18
68	Quantifying thumb opposition kinematics using dynamic computed tomography. <i>Journal of Biomechanics</i> , 2016 , 49, 1994-1999	2.9	16
67	Fast and accurate specimen-specific simulation of trabecular bone elastic modulus using novel beam-shell finite element models. <i>Journal of Biomechanics</i> , 2011 , 44, 1566-72	2.9	16
66	Positive association between serum silicon levels and bone mineral density in female rats following oral silicon supplementation with monomethylsilanetriol. <i>Osteoporosis International</i> , 2015 , 26, 1405-15	5.3	15
65	Enhancement of implant osseointegration by high-frequency low-magnitude loading. <i>PLoS ONE</i> , 2012 , 7, e40488	3.7	15
64	A novel in silico method to quantify primary stability of screws in trabecular bone. <i>Journal of Orthopaedic Research</i> , 2017 , 35, 2415-2424	3.8	14
63	Accuracy and reproducibility of mouse cortical bone microporosity as quantified by desktop microcomputed tomography. <i>PLoS ONE</i> , 2017 , 12, e0182996	3.7	14
62	Unraveling the compromised biomechanical performance of type 2 diabetes- and Roux-en-Y gastric bypass bone by linking mechanical-structural and physico-chemical properties. <i>Scientific Reports</i> , 2018 , 8, 5881	4.9	14
61	Mechanical competence of ovariectomy-induced compromised bone after single or combined treatment with high-frequency loading and bisphosphonates. <i>Scientific Reports</i> , 2015 , 5, 10795	4.9	14
60	Correlation Between Cone-Beam Computed Tomography and High-Resolution Peripheral Computed Tomography for Assessment of Wrist Bone Microstructure. <i>Journal of Bone and Mineral Research</i> , 2019 , 34, 867-874	6.3	13
59	Towards validation of computational analyses of peri-implant displacements by means of experimentally obtained displacement maps. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2011 , 14, 165-74	2.1	13
58	Extreme scalability challenges in micro-finite element simulations of human bone. <i>Concurrency Computation Practice and Experience</i> , 2010 , 22, 2282-2296	1.4	13
57	Femoral stiffness and strength critically depend on loading angle: a parametric study in a mouse-inbred strain. <i>Biomedizinische Technik</i> , 2008 , 53, 122-9	1.3	13
56	Differential effects of bone structural and material properties on bone competence in C57BL/6 and C3H/He inbred strains of mice. <i>Calcified Tissue International</i> , 2008 , 83, 61-9	3.9	13
55	Quantification of bone microstructure in the wrist using cone-beam computed tomography. <i>Bone</i> , 2018 , 114, 206-214	4.7	12
54	In vivo biomechanical behavior of the trapeziometacarpal joint in healthy and osteoarthritic subjects. <i>Clinical Biomechanics</i> , 2017 , 49, 119-127	2.2	12
53	Mechanical stability in a human radius fracture treated with a novel tissue-engineered bone substitute: a non-invasive, longitudinal assessment using high-resolution pQCT in combination with finite element analysis. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2011 , 5, 415-20	4.4	12
52	CT-based visualization and quantification of bone microstructure in vivo. <i>IBMS BoneKEy</i> , 2008 , 5, 410-42	25	12

(2021-2014)

51	From histology to micro-CT: Measuring and modeling resorption cavities and their relation to bone competence. <i>World Journal of Radiology</i> , 2014 , 6, 643-56	2.9	12	
50	Augmentation of peri-implant bone improves implant stability: quantification using simulated bone loss. <i>Journal of Orthopaedic Research</i> , 2012 , 30, 178-84	3.8	11	
49	High-throughput quantification of the mechanical competence of murine femoraa highly automated approach for large-scale genetic studies. <i>Bone</i> , 2013 , 55, 216-21	4.7	11	
48	Quantification of bone structural parameters and mechanical competence at the distal radius. Journal of Orthopaedic Trauma, 2008 , 22, S66-72	3.1	11	
47	Comparison of optical coherence tomography, microcomputed tomography, and histology at a three-dimensionally imaged trabecular bone sample. <i>Journal of Biomedical Optics</i> , 2010 , 15, 046019	3.5	10	
46	A finite element beam-model for efficient simulation of large-scale porous structures. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2004 , 7, 9-16	2.1	10	
45	Ex vivo thickness measurement of cartilage covering the temporomandibular joint. <i>Journal of Biomechanics</i> , 2017 , 52, 165-168	2.9	8	
44	Effect of anatomical variability on stress-shielding induced by short calcar-guided stems: Automated finite element analysis of 90 femora. <i>Journal of Orthopaedic Research</i> , 2019 , 37, 681-688	3.8	7	
43	Finite element models for fracture prevention in patients with metastatic bone disease. A literature review. <i>Bone Reports</i> , 2020 , 12, 100286	2.6	7	
42	Skull fracture prediction through subject-specific finite element modelling is highly sensitive to model parameters. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019 , 100, 103384	4.1	7	
41	Mobility and structural constraints of the bonobo trapeziometacarpal joint. <i>Biological Journal of the Linnean Society</i> , 2019 , 127, 681-693	1.9	7	
40	A novel method for segmenting and aligning the pre- and post-implantation scaffolds of resorbable calcium-phosphate bone substitutes. <i>Acta Biomaterialia</i> , 2017 , 54, 441-453	10.8	6	
39	A non-linear homogeneous model for bone-like materials under compressive load. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2012 , 28, 273-87	2.6	6	
38	Nonlinear voxel-based finite element model for strength assessment of healthy and metastatic proximal femurs. <i>Bone Reports</i> , 2020 , 12, 100263	2.6	5	
37	Mechanical stiffness of TMJ condylar cartilage increases after artificial aging by ribose. <i>Archives of Oral Biology</i> , 2018 , 87, 102-109	2.8	5	
36	Patient-specific in silico models can quantify primary implant stability in elderly human bone. Journal of Orthopaedic Research, 2018 , 36, 954-962	3.8	5	
35	Does Unicondylar Knee Arthroplasty Affect Tibial Bone Strain? A Paired Cadaveric Comparison of Fixed- and Mobile-bearing Designs. <i>Clinical Orthopaedics and Related Research</i> , 2020 , 478, 1990-2000	2.2	5	
34	Homogenized finite element models can accurately predict screw pull-out in continuum materials, but not in porous materials. <i>Computer Methods and Programs in Biomedicine</i> , 2021 , 202, 105966	6.9	5	

33	Computer-based automatic classification of trabecular bone pattern can assist radiographic bone quality assessment at dental implant site. <i>British Journal of Radiology</i> , 2018 , 91, 20180437	3.4	5
32	Trabecular bone adaptation to low-magnitude high-frequency loading in microgravity. <i>PLoS ONE</i> , 2014 , 9, e93527	3.7	4
31	Finite Element Investigation of Fracture Risk Under Postero-Anterior Mobilization on a Lumbar Bone in Elderly With and Without Osteoporosis. <i>Journal of Medical and Biological Engineering</i> , 2021 , 41, 285-294	2.2	4
30	Quantification of trabecular spatial orientation from low-resolution images. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2015 , 18, 1392-9	2.1	3
29	Estrogen receptor alpha signaling in extrahypothalamic neurons during late puberty decreases bone size and strength in female but not in male mice. <i>FASEB Journal</i> , 2020 , 34, 7118-7126	0.9	3
28	Mechanical and morphological characterization of PMMA/bone composites in human femoral heads. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021 , 115, 104247	4.1	3
27	Integration of cortical thickness data in a statistical shape model of the scapula. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2020 , 23, 642-648	2.1	2
26	Finite Element Analysis of Custom Shoulder Implants Provides Accurate Prediction of Initial Stability. <i>Mathematics</i> , 2020 , 8, 1113	2.3	2
25	Cement augmentation of metastatic lesions in the proximal femur can improve bone strength. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 104, 103648	4.1	2
24	A novel contact interaction formulation for voxel-based micro-finite-element models of bone. <i>International Journal for Numerical Methods in Engineering</i> , 2018 , 115, 411-426	2.4	2
24		2.4	2
	International Journal for Numerical Methods in Engineering, 2018 , 115, 411-426	2.4	
23	International Journal for Numerical Methods in Engineering, 2018, 115, 411-426 2009, Cemented short-stem total hip arthroplasty: Characteristics of line-to-line versus undersized cementing techniques using a validated CT-based finite element analysis. Journal of Orthopaedic		2
23	International Journal for Numerical Methods in Engineering, 2018, 115, 411-426 2009, Cemented short-stem total hip arthroplasty: Characteristics of line-to-line versus undersized cementing techniques using a validated CT-based finite element analysis. Journal of Orthopaedic Research, 2021, 39, 1681-1690 Mechanical evaluation of a patient-specific additively manufactured subperiosteal jaw implant	3.8	2
23	2009, Cemented short-stem total hip arthroplasty: Characteristics of line-to-line versus undersized cementing techniques using a validated CT-based finite element analysis. Journal of Orthopaedic Research, 2021, 39, 1681-1690 Mechanical evaluation of a patient-specific additively manufactured subperiosteal jaw implant (AMSJI) using finite-element analysis. International Journal of Oral and Maxillofacial Surgery, 2021, Diffusion of charged and uncharged contrast agents in equine mandibular condylar cartilage is not affected by an increased level of sugar-induced collagen crosslinking. Journal of the Mechanical	3.8	2 2 2
23 22 21 20	2009, Cemented short-stem total hip arthroplasty: Characteristics of line-to-line versus undersized cementing techniques using a validated CT-based finite element analysis. Journal of Orthopaedic Research, 2021, 39, 1681-1690 Mechanical evaluation of a patient-specific additively manufactured subperiosteal jaw implant (AMSJI) using finite-element analysis. International Journal of Oral and Maxillofacial Surgery, 2021, Diffusion of charged and uncharged contrast agents in equine mandibular condylar cartilage is not affected by an increased level of sugar-induced collagen crosslinking. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 90, 133-139 Automated muscle elongation measurement during reverse shoulder arthroplasty planning.	3.8 2.9 4.1	2 2 2
2322212019	2009, Cemented short-stem total hip arthroplasty: Characteristics of line-to-line versus undersized cementing techniques using a validated CT-based finite element analysis. Journal of Orthopaedic Research, 2021, 39, 1681-1690 Mechanical evaluation of a patient-specific additively manufactured subperiosteal jaw implant (AMSJI) using finite-element analysis. International Journal of Oral and Maxillofacial Surgery, 2021, Diffusion of charged and uncharged contrast agents in equine mandibular condylar cartilage is not affected by an increased level of sugar-induced collagen crosslinking. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 90, 133-139 Automated muscle elongation measurement during reverse shoulder arthroplasty planning. Journal of Shoulder and Elbow Surgery, 2021, 30, 561-571 Quantification of 3D microstructural parameters of trabecular bone is affected by the analysis	3.8 2.9 4.1 4.3	2 2 2 2

LIST OF PUBLICATIONS

15	Alterations in osteocyte lacunar morphology affect local bone tissue strains. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021 , 123, 104730	4.1	2
14	Functional Micro-imaging at the Interface of Bone Mechanics and Biology 2006 , 473-487		2
13	A IT-based investigation of the influence of tissue modulus variation, anisotropy and inhomogeneity on ultrasound propagation in trabecular bone. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016 , 60, 416-424	4.1	1
12	Aging does not change the compressive stiffness of mandibular condylar cartilage in horses. <i>Osteoarthritis and Cartilage</i> , 2018 , 26, 1744-1752	6.2	1
11	The effect of resorption cavities on bone stiffness is site dependent. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2014 , 17, 1483-91	2.1	1
10	Microstructural quality of vertebral trabecular bone can be assessed from ultrasonic wave propagation. <i>IFMBE Proceedings</i> , 2009 , 1794-1797	0.2	1
9	2008,		1
8	Functional microimaging: an integrated approach for advanced bone biomechanics and failure analysis 2006 ,		1
7		0.2	1
	analysis 2006 , A Validated Skeleton-based Finite Element Mesh for Parametric Analysis of Trabecular Bone	0.2	
7	analysis 2006, A Validated Skeleton-based Finite Element Mesh for Parametric Analysis of Trabecular Bone Competence. <i>IFMBE Proceedings</i> , 2009, 1777-1780 A Convolution-based Methodology to Simulate Cardiac Ultrasound Data Sets: Integration of		1
7	A Validated Skeleton-based Finite Element Mesh for Parametric Analysis of Trabecular Bone Competence. <i>IFMBE Proceedings</i> , 2009 , 1777-1780 A Convolution-based Methodology to Simulate Cardiac Ultrasound Data Sets: Integration of Realistic Beam Profiles. <i>IFMBE Proceedings</i> , 2009 , 2520-2523 Adaptive local thresholding can enhance the accuracy of HR-pQCT-based trabecular bone	0.2	1
7 6 5	A Validated Skeleton-based Finite Element Mesh for Parametric Analysis of Trabecular Bone Competence. <i>IFMBE Proceedings</i> , 2009 , 1777-1780 A Convolution-based Methodology to Simulate Cardiac Ultrasound Data Sets: Integration of Realistic Beam Profiles. <i>IFMBE Proceedings</i> , 2009 , 2520-2523 Adaptive local thresholding can enhance the accuracy of HR-pQCT-based trabecular bone morphology assessment. <i>Bone</i> , 2022 , 154, 116225	0.2 4·7	1 1 0
7 6 5	analysis 2006, A Validated Skeleton-based Finite Element Mesh for Parametric Analysis of Trabecular Bone Competence. IFMBE Proceedings, 2009, 1777-1780 A Convolution-based Methodology to Simulate Cardiac Ultrasound Data Sets: Integration of Realistic Beam Profiles. IFMBE Proceedings, 2009, 2520-2523 Adaptive local thresholding can enhance the accuracy of HR-pQCT-based trabecular bone morphology assessment. Bone, 2022, 154, 116225 Stress distribution in the bonobo () trapeziometacarpal joint during grasping. PeerJ, 2021, 9, e12068 Experimental validation of a voxel-based finite element model simulating femoroplasty of lytic	0.2 4.7 3.1	1 1 0

A novel 3D-printed, patient-specific alloplastic temporomandibular joint replacement allowing enthesis reconstruction: A finite element analysis. *Annals of 3D Printed Medicine*, **2022**, 6, 100058