

Peter Varga

List of Publications by Citations

Source: <https://exaly.com/author-pdf/8492311/peter-varga-publications-by-citations.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

78
papers

1,839
citations

23
h-index

41
g-index

87
ext. papers

2,198
ext. citations

4
avg, IF

4.69
L-index

#	Paper	IF	Citations
78	QCT-based finite element models predict human vertebral strength in vitro significantly better than simulated DEXA. <i>Osteoporosis International</i> , 2012 , 23, 563-72	5.3	117
77	Increased bone resorption and impaired bone microarchitecture in short-term and extended high-fat diet-induced obesity. <i>Metabolism: Clinical and Experimental</i> , 2011 , 60, 243-9	12.7	113
76	Finite element analysis for prediction of bone strength. <i>BoneKey Reports</i> , 2013 , 2, 386		110
75	Lathyrism-induced alterations in collagen cross-links influence the mechanical properties of bone material without affecting the mineral. <i>Bone</i> , 2011 , 49, 1232-41	4.7	95
74	Improvements in vertebral body strength under teriparatide treatment assessed in vivo by finite element analysis: results from the EUROFORS study. <i>Journal of Bone and Mineral Research</i> , 2009 , 24, 1672-80	6.3	85
73	Canalicular network morphology is the major determinant of the spatial distribution of mass density in human bone tissue: evidence by means of synchrotron radiation phase-contrast nano-CT. <i>Journal of Bone and Mineral Research</i> , 2015 , 30, 346-56	6.3	78
72	A nonlinear finite element model validation study based on a novel experimental technique for inducing anterior wedge-shape fractures in human vertebral bodies in vitro. <i>Journal of Biomechanics</i> , 2010 , 43, 2374-80	2.9	76
71	Investigation of the three-dimensional orientation of mineralized collagen fibrils in human lamellar bone using synchrotron X-ray phase nano-tomography. <i>Acta Biomaterialia</i> , 2013 , 9, 8118-27	10.8	74
70	A patient-specific finite element methodology to predict damage accumulation in vertebral bodies under axial compression, sagittal flexion and combined loads. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2008 , 11, 477-87	2.1	63
69	Synchrotron X-ray phase nano-tomography-based analysis of the lacunar-canalicular network morphology and its relation to the strains experienced by osteocytes in situ as predicted by case-specific finite element analysis. <i>Biomechanics and Modeling in Mechanobiology</i> , 2015 , 14, 267-82	3.8	60
68	Validation of an anatomy specific finite element model of Colles fracture. <i>Journal of Biomechanics</i> , 2009 , 42, 1726-31	2.9	60
67	3D Raman mapping of the collagen fibril orientation in human osteonal lamellae. <i>Journal of Structural Biology</i> , 2014 , 187, 266-275	3.4	59
66	HR-pQCT based FE analysis of the most distal radius section provides an improved prediction of Colles fracture load in vitro. <i>Bone</i> , 2010 , 47, 982-8	4.7	58
65	Ultrasound to assess bone quality. <i>Current Osteoporosis Reports</i> , 2014 , 12, 154-62	5.4	49
64	Validation of an HR-pQCT-based homogenized finite element approach using mechanical testing of ultra-distal radius sections. <i>Biomechanics and Modeling in Mechanobiology</i> , 2011 , 10, 431-44	3.8	45
63	HR-pQCT-based homogenised finite element models provide quantitative predictions of experimental vertebral body stiffness and strength with the same accuracy as BE models. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2012 , 15, 711-20	2.1	40
62	Elasticity-density and viscoelasticity-density relationships at the tibia mid-diaphysis assessed from resonant ultrasound spectroscopy measurements. <i>Biomechanics and Modeling in Mechanobiology</i> , 2016 , 15, 97-109	3.8	37

61	Implicit modeling of screw threads for efficient finite element analysis of complex bone-implant systems. <i>Journal of Biomechanics</i> , 2016 , 49, 1836-1844	2.9	35
60	Alterations of mass density and 3D osteocyte lacunar properties in bisphosphonate-related osteonecrotic human jaw bone, a synchrotron μ CT study. <i>PLoS ONE</i> , 2014 , 9, e88481	3.7	32
59	Fatigue failure of plated osteoporotic proximal humerus fractures is predicted by the strain around the proximal screws. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017 , 75, 68-74	4.1	28
58	Assessment of volume fraction and fabric in the distal radius using HR-pQCT. <i>Bone</i> , 2009 , 45, 909-17	4.7	26
57	Nonlinear quasi-static finite element simulations predict in vitro strength of human proximal femora assessed in a dynamic sideways fall setup. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016 , 57, 116-27	4.1	25
56	Validated computational framework for efficient systematic evaluation of osteoporotic fracture fixation in the proximal humerus. <i>Medical Engineering and Physics</i> , 2018 , 57, 29-39	2.4	23
55	Cathepsin S controls adipocytic and osteoblastic differentiation, bone turnover, and bone microarchitecture. <i>Bone</i> , 2014 , 64, 281-7	4.7	23
54	Finite element based estimation of contact areas and pressures of the human scaphoid in various functional positions of the hand. <i>Journal of Biomechanics</i> , 2013 , 46, 984-90	2.9	22
53	On the elastic properties of mineralized turkey leg tendon tissue: multiscale model and experiment. <i>Biomechanics and Modeling in Mechanobiology</i> , 2014 , 13, 1003-23	3.8	22
52	Sampling Sphere Orientation Distribution: an efficient method to quantify trabecular bone fabric on grayscale images. <i>Medical Image Analysis</i> , 2009 , 13, 530-41	15.4	21
51	Multiscale, converging defects of macro-porosity, microstructure and matrix mineralization impact long bone fragility in NF1. <i>PLoS ONE</i> , 2014 , 9, e86115	3.7	21
50	Biomechanical comparison of plate and screw fixation in anterior pelvic ring fractures with low bone mineral density. <i>Injury</i> , 2016 , 47, 1456-60	2.5	20
49	A calibration methodology of QCT BMD for human vertebral body with registered micro-CT images. <i>Medical Physics</i> , 2011 , 38, 2602-8	4.4	19
48	Importance of locking plate positioning in proximal humeral fractures as predicted by computer simulations. <i>Journal of Orthopaedic Research</i> , 2019 , 37, 957-964	3.8	18
47	Multimodal correlative investigation of the interplaying micro-architecture, chemical composition and mechanical properties of human cortical bone tissue reveals predominant role of fibrillar organization in determining microelastic tissue properties. <i>Acta Biomaterialia</i> , 2016 , 44, 51-64	10.8	18
46	Characterizing microcrack orientation distribution functions in osteonal bone samples. <i>Journal of Microscopy</i> , 2016 , 264, 268-281	1.9	17
45	Assessing osteocyte lacunar geometrical properties in human jaw bone on the submicron length scale using synchrotron radiation μ CT. <i>Journal of Microscopy</i> , 2014 , 255, 158-68	1.9	16
44	Full-Field Calcium K-Edge X-ray Absorption Near-Edge Structure Spectroscopy on Cortical Bone at the Micron-Scale: Polarization Effects Reveal Mineral Orientation. <i>Analytical Chemistry</i> , 2016 , 88, 3826-35	7.8	15

43	New approaches for cement-based prophylactic augmentation of the osteoporotic proximal femur provide enhanced reinforcement as predicted by non-linear finite element simulations. <i>Clinical Biomechanics</i> , 2017 , 44, 7-13	2.2	14
42	Screw configuration in proximal humerus plating has a significant impact on fixation failure risk predicted by finite element models. <i>Journal of Shoulder and Elbow Surgery</i> , 2019 , 28, 1816-1823	4.3	14
41	Where is the distal fracture line location of dorsally displaced distal radius fractures?. <i>Journal of Orthopaedic Research</i> , 2011 , 29, 489-94	3.8	14
40	The influence of screw length on predicted cut-out failures for proximal humeral fracture fixations predicted by finite element simulations. <i>Archives of Orthopaedic and Trauma Surgery</i> , 2019 , 139, 1069-1074	3.6	13
39	Late screw-related complications in locking plating of proximal humerus fractures: A systematic review. <i>Injury</i> , 2019 , 50, 2176-2195	2.5	13
38	OPG-Fc treatment in growing pigs leads to rapid reductions in bone resorption markers, serum calcium, and bone formation markers. <i>Hormone and Metabolic Research</i> , 2011 , 43, 944-9	3.1	13
37	Bone and cellular immune system of multiparous sows are insensitive to ovariectomy and nutritive calcium shortage. <i>Hormone and Metabolic Research</i> , 2011 , 43, 404-9	3.1	12
36	Prophylactic augmentation of the osteoporotic proximal femur-mission impossible?. <i>BoneKEY Reports</i> , 2016 , 5, 854		12
35	A finite element analysis of two novel screw designs for scaphoid waist fractures. <i>Medical Engineering and Physics</i> , 2016 , 38, 131-9	2.4	11
34	BMD-based assessment of local porosity in human femoral cortical bone. <i>Bone</i> , 2018 , 114, 50-61	4.7	11
33	The prediction of cyclic proximal humerus fracture fixation failure by various bone density measures. <i>Journal of Orthopaedic Research</i> , 2018 , 36, 2250	3.8	9
32	Distribution of mesoscale elastic properties and mass density in the human femoral shaft. <i>Connective Tissue Research</i> , 2015 , 56, 120-32	3.3	9
31	Rotational Stability of Scaphoid Osteosyntheses: An In Vitro Comparison of Small Fragment Cannulated Screws to Novel Bone Screw Sets. <i>PLoS ONE</i> , 2016 , 11, e0156080	3.7	9
30	Prophylactic vertebroplasty versus kyphoplasty in osteoporosis: A comprehensive biomechanical matched-pair study by in vitro compressive testing. <i>Medical Engineering and Physics</i> , 2019 , 65, 46-56	2.4	7
29	Computational optimisation of screw orientations for improved locking plate fixation of proximal humerus fractures. <i>Journal of Orthopaedic Translation</i> , 2020 , 25, 96-104	4.2	6
28	Cement augmentation of calcar screws may provide the greatest reduction in predicted screw cut-out risk for proximal humerus plating based on validated parametric computational modelling: Augmenting proximal humerus fracture plating. <i>Bone and Joint Research</i> , 2020 , 9, 534-542	4.2	6
27	Finite element analysis of bone strength in osteogenesis imperfecta. <i>Bone</i> , 2020 , 133, 115250	4.7	5
26	A cadaveric biomechanical study comparing the ease of femoral nail insertion: 1.0- vs 1.5-m bow designs. <i>Archives of Orthopaedic and Trauma Surgery</i> , 2017 , 137, 663-671	3.6	4

25	Biomechanical investigation of two long bone growth modulation techniques by finite element simulations. <i>Journal of Orthopaedic Research</i> , 2018 , 36, 1398-1405	3.8	4
24	Finite Element Analysis and Biomechanical Testing to Analyze Fracture Displacement of Alveolar Ridge Splitting. <i>BioMed Research International</i> , 2018 , 2018, 3579654	3	4
23	2014 ,		3
22	Histogram feature-based classification improves differentiability of early bone healing stages from micro-computed tomographic data. <i>Journal of Computer Assisted Tomography</i> , 2012 , 36, 469-76	2.2	3
21	Finite Element Analysis of Fracture Fixation. <i>Current Osteoporosis Reports</i> , 2021 , 19, 403-416	5.4	3
20	Ultrasound palpation for fast in-situ quantification of articular cartilage stiffness, thickness and relaxation capacity. <i>Biomechanics and Modeling in Mechanobiology</i> , 2017 , 16, 1171-1185	3.8	2
19	Secondary Perforation Risk in Plate Osteosynthesis of Unstable Proximal Humerus Fractures: A Biomechanical Investigation of the Effect of Screw Length. <i>Journal of Orthopaedic Research</i> , 2019 , 37, 2625-2633	3.8	2
18	Synchrotron X-Ray Phase Nanotomography for Bone Tissue Characterization 2016 , 1-42		2
17	Experimental and numerical investigation of secondary screw perforation in the human proximal humerus. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021 , 116, 104344	4.1	2
16	Biomechanical evaluation of retrograde docking nailing to a total hip arthroplasty stem in a periprosthetic femur fracture model. <i>Injury</i> , 2021 , 52, 53-59	2.5	2
15	An experimentally informed statistical elasto-plastic mineralised collagen fibre model at the micrometre and nanometre lengthscale. <i>Scientific Reports</i> , 2021 , 11, 15539	4.9	2
14	Comparison of optimal screw configurations in two locking plate systems for proximal humerus fixation - a finite element analysis study. <i>Clinical Biomechanics</i> , 2020 , 78, 105097	2.2	1
13	Overdrilling increases the risk of screw perforation in locked plating of complex proximal humeral fractures - A biomechanical cadaveric study. <i>Journal of Biomechanics</i> , 2021 , 117, 110268	2.9	1
12	One size may not fit all: patient-specific computational optimization of locking plates for improved proximal humerus fracture fixation. <i>Journal of Shoulder and Elbow Surgery</i> , 2022 , 31, 192-200	4.3	1
11	Biomechanical evaluation of the docking nail concept in periprosthetic fracture fixation around a stemmed total knee arthroplasty. <i>Journal of Biomechanics</i> , 2021 , 115, 110109	2.9	1
10	From creative thinking to scientific principles in clinical practice. <i>Injury</i> , 2021 , 52, 32-36	2.5	1
9	Mechanical Evaluation of Two Hybrid Locking Plate Designs for Canine Pancarpal Arthrodesis. <i>BioMed Research International</i> , 2021 , 2021, 2526879	3	1
8	Non-linear explicit micro-FE models accurately predict axial pull-out force of cortical screws in human tibial cortical bone. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021 , 126, 105002	4.1	0

7	Volar versus combined dorsal and volar plate fixation of complex intraarticular distal radius fractures with small dorsoulnar fragment - a biomechanical study.. <i>BMC Musculoskeletal Disorders</i> , 2022 , 23, 35	2.8	○
6	Adaptive local thresholding can enhance the accuracy of HR-pQCT-based trabecular bone morphology assessment. <i>Bone</i> , 2022 , 154, 116225	4.7	○
5	Is Bridge Plating of Comminuted Humeral Shaft Fractures Advantageous When Using Compression Plates with Three versus Two Screws per Fragment? A Biomechanical Cadaveric Study. <i>BioMed Research International</i> , 2021 , 2021, 6649712	3	○
4	Cartilage decisively shapes the glenoid concavity and contributes significantly to shoulder stability.. <i>Knee Surgery, Sports Traumatology, Arthroscopy</i> , 2022 , 1	5.5	○
3	The Alveolar Ridge Splitting Technique on Maxillae: A Biomechanical Human Cadaveric Investigation. <i>BioMed Research International</i> , 2020 , 2020, 8894471	3	
2	Wrist movements induce torque and lever force in the scaphoid: an ex vivo study. <i>Journal of Orthopaedic Surgery and Research</i> , 2020 , 15, 368	2.8	
1	Unified validation of a refined second-generation HR-pQCT based homogenized finite element method to predict strength of the distal segments in radius and tibia.. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022 , 131, 105235	4.1	