

Uwe Wolfram

List of Publications by Year in descending order

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Version: 2024-02-01

48
papers

1,993
citations

279798

23
h-index

243625

44
g-index

51
all docs

51
docs citations

51
times ranked

2438
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of patient inhalation profile and airway structure on drug deposition in image-based models with particle-particle interactions. <i>International Journal of Pharmaceutics</i> , 2022, 612, 121321.	5.2	9
2	Multiscale mechanical consequences of ocean acidification for cold-water corals. <i>Scientific Reports</i> , 2022, 12, 8052.	3.3	6
3	Nonlinear micro finite element models based on digital volume correlation measurements predict early microdamage in newly formed bone. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022, 132, 105303.	3.1	10
4	Heat impact during laser ablation extraction of mineralised tissue micropillars. <i>Scientific Reports</i> , 2021, 11, 11007.	3.3	7
5	An experimentally informed statistical elasto-plastic mineralised collagen fibre model at the micrometre and nanometre lengthscale. <i>Scientific Reports</i> , 2021, 11, 15539.	3.3	8
6	Extrafibrillar matrix yield stress and failure envelopes for mineralised collagen fibril arrays. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 105, 103563.	3.1	5
7	Crumbling Reefs and Cold-Water Coral Habitat Loss in a Future Ocean: Evidence of "Coral porosis" as an Indicator of Habitat Integrity. <i>Frontiers in Marine Science</i> , 2020, 7, .	2.5	36
8	Compressive behaviour of uniaxially aligned individual mineralised collagen fibres at the micro- and nanoscale. <i>Acta Biomaterialia</i> , 2019, 89, 313-329.	8.3	36
9	Compositional and mechanical properties of growing cortical bone tissue: a study of the human fibula. <i>Scientific Reports</i> , 2019, 9, 17629.	3.3	31
10	"Peroperative estimation of bone quality and primary dental implant stability". <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019, 92, 24-32.	3.1	20
11	Registration of phase-contrast images in propagation-based X-ray phase tomography. <i>Journal of Microscopy</i> , 2018, 269, 36-47.	1.8	7
12	Comparative Analysis of Bone Structural Parameters Reveals Subchondral Cortical Plate Resorption and Increased Trabecular Bone Remodeling in Human Facet Joint Osteoarthritis. <i>International Journal of Molecular Sciences</i> , 2018, 19, 845.	4.1	11
13	A new multiscale micromechanical model of vertebral trabecular bones. <i>Biomechanics and Modeling in Mechanobiology</i> , 2017, 16, 933-946.	2.8	13
14	Nanoscale deformation mechanisms and yield properties of hydrated bone extracellular matrix. <i>Acta Biomaterialia</i> , 2017, 60, 302-314.	8.3	58
15	A rate-independent continuum model for bone tissue with interaction of compressive and tensile micro-damage. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 74, 448-462.	3.1	3
16	Response to the commentary on mechanical properties of cortical bone and their relationships with age, gender, composition and microindentation properties in the elderly. <i>Bone</i> , 2017, 105, 312-314.	2.9	5
17	Post-yield and failure properties of cortical bone. <i>BoneKEY Reports</i> , 2016, 5, 829.	2.7	63
18	European Society of Biomechanics S.M. Perren Award 2016: A statistical damage model for bone tissue based on distinct compressive and tensile cracks. <i>Journal of Biomechanics</i> , 2016, 49, 3616-3625.	2.1	11

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19	Mechanical properties of cortical bone and their relationships with age, gender, composition and microindentation properties in the elderly. <i>Bone</i> , 2016, 93, 196-211.	2.9	207
20	Characterizing microcrack orientation distribution functions in osteonal bone samples. <i>Journal of Microscopy</i> , 2016, 264, 268-281.	1.8	26
21	Structural Behavior of Human Lumbar Intervertebral Disc under Direct Shear. <i>Journal of Applied Biomaterials and Functional Materials</i> , 2015, 13, 66-71.	1.6	9
22	Continuum damage interactions between tension and compression in osteonal bone. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015, 49, 355-369.	3.1	36
23	Axial knee alignment influences the repair of focal articular cartilage defects – A translational study in sheep. <i>Osteoarthritis and Cartilage</i> , 2015, 23, A143-A144.	1.3	0
24	Particle tracking during Ostwald ripening using time-resolved laboratory X-ray microtomography. <i>Materials Characterization</i> , 2014, 90, 185-195.	4.4	26
25	Validation of composite finite elements efficiently simulating elasticity of trabecular bone. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2014, 17, 652-660.	1.6	3
26	In situ micropillar compression reveals superior strength and ductility but an absence of damage in lamellar bone. <i>Nature Materials</i> , 2014, 13, 740-747.	27.5	154
27	A generalized anisotropic quadric yield criterion and its application to bone tissue at multiple length scales. <i>Biomechanics and Modeling in Mechanobiology</i> , 2013, 12, 1155-1168.	2.8	58
28	Identification of a crushable foam material model and application to strength and damage prediction of human femur and vertebral body. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2013, 26, 136-147.	3.1	12
29	Measurement of structural anisotropy in femoral trabecular bone using clinical-resolution CT images. <i>Journal of Biomechanics</i> , 2013, 46, 2659-2666.	2.1	34
30	Effect of Subchondral Drilling on the Microarchitecture of Subchondral Bone. <i>American Journal of Sports Medicine</i> , 2012, 40, 828-836.	4.2	109
31	Hydrogels for nucleus replacement – Facing the biomechanical challenge. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2012, 14, 67-77.	3.1	51
32	Fabric-based Tsai-Wu yield criteria for vertebral trabecular bone in stress and strain space. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2012, 15, 218-228.	3.1	66
33	Internal morphology of human facet joints: comparing cervical and lumbar spine with regard to age, gender and the vertebral core. <i>Journal of Anatomy</i> , 2012, 220, 233-241.	1.5	17
34	Impact of measurement errors on the determination of the linear modulus of human meniscal attachments. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2012, 10, 120-127.	3.1	5
35	High-resolution ZTE imaging of human teeth. <i>NMR in Biomedicine</i> , 2012, 25, 1144-1151.	2.8	109
36	Autofluorescence imaging, an excellent tool for comparative morphology. <i>Journal of Microscopy</i> , 2011, 244, 259-272.	1.8	95

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37	In vivo degradation of low temperature calcium and magnesium phosphate ceramics in a heterotopic model. <i>Acta Biomaterialia</i> , 2011, 7, 3469-3475.	8.3	119
38	Damage accumulation in vertebral trabecular bone depends on loading mode and direction. <i>Journal of Biomechanics</i> , 2011, 44, 1164-1169.	2.1	59
39	Valid $\frac{1}{4}$ finite element models of vertebral trabecular bone can be obtained using tissue properties measured with nanoindentation under wet conditions. <i>Journal of Biomechanics</i> , 2010, 43, 1731-1737.	2.1	83
40	Internal forces and moments in the femur of the rat during gait. <i>Journal of Biomechanics</i> , 2010, 43, 2473-2479.	2.1	53
41	TRANSVERSE ISOTROPIC ELASTIC PROPERTIES OF VERTEBRAL TRABECULAR BONE MATRIX MEASURED USING MICROINDENTATION UNDER DRY CONDITIONS (EFFECTS OF AGE, GENDER, AND VERTEBRAL LEVEL). <i>Journal of Mechanics in Medicine and Biology</i> , 2010, 10, 139-150.	0.7	13
42	Rehydration of vertebral trabecular bone: Influences on its anisotropy, its stiffness and the indentation work with a view to age, gender and vertebral level. <i>Bone</i> , 2010, 46, 348-354.	2.9	112
43	Correspondences of hydrostatic pressure in periodontal ligament with regions of root resorption: A clinical and a finite element study of the same human teeth. <i>Computer Methods and Programs in Biomedicine</i> , 2009, 93, 155-161.	4.7	53
44	A downloadable meshed human canine tooth model with PDL and bone for finite element simulations. <i>Dental Materials</i> , 2009, 25, e57-e62.	3.5	15
45	Vertebral trabecular main direction can be determined from clinical CT datasets using the gradient structure tensor and not the inertia tensor – A case study. <i>Journal of Biomechanics</i> , 2009, 42, 1390-1396.	2.1	17
46	Statistical osteoporosis models using composite finite elements: A parameter study. <i>Journal of Biomechanics</i> , 2009, 42, 2205-2209.	2.1	7
47	A method to obtain surface strains of soft tissues using a laser scanning device. <i>Journal of Biomechanics</i> , 2008, 41, 2402-2410.	2.1	17
48	Periodontal Ligament Hydrostatic Pressure with Areas of Root Resorption after Application of a Continuous Torque Moment. <i>Angle Orthodontist</i> , 2007, 77, 653-659.	2.4	84