Kevin M Moerman

List of Publications by Year
in descending order

37	1,073	516215 16	414034 32
papers	citations	h-index	g-index

42	42	42	1273
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The anisotropic mechanical behaviour of passive skeletal muscle tissue subjected to large tensile strain. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 17, 209-220.	1.5	127
2	Digital image correlation and finite element modelling as a method to determine mechanical properties of human soft tissue in vivo. Journal of Biomechanics, 2009, 42, 1150-1153.	0.9	116
3	MultiDIC: An Open-Source Toolbox for Multi-View 3D Digital Image Correlation. IEEE Access, 2018, 6, 30520-30535.	2.6	115
4	GIBBON: The Geometry and Image-Based Bioengineering add-On. Journal of Open Source Software, 2018, 3, 506.	2.0	80
5	A structural model of passive skeletal muscle shows two reinforcement processes in resisting deformation. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 22, 84-94.	1.5	67
6	Multi-material 3-D viscoelastic model of a transtibial residuum from in-vivo indentation and MRI data. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 59, 379-392.	1.5	49
7	Uniaxial and biaxial mechanical properties of porcine linea alba. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 41, 68-82.	1.5	44
8	Journal of Open Source Software (JOSS): design and first-year review. PeerJ Computer Science, 2018, 4, e147.	2.7	42
9	Control of tensionâ€“compression asymmetry in Ogden hyperelasticity with application to soft tissue modelling. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 56, 218-228.	1.5	41
10	A novel MRI compatible soft tissue indentor and fibre Bragg grating force sensor. Medical Engineering and Physics, 2013, 35, 486-499.	0.8	34
11	A Framework for Measuring the Time-Varying Shape and Full-Field Deformation of Residual Limbs Using 3-D Digital Image Correlation. IEEE Transactions on Biomedical Engineering, 2019, 66, 2740-2752.	2.5	31
12	Lumbar model generator: a tool for the automated generation of a parametric scalable model of the lumbar spine. Journal of the Royal Society Interface, 2018, 15, 20170829.	1.5	30
13	The first virtual patient-specific thrombectomy procedure. Journal of Biomechanics, 2021, 126, 110622.	0.9	25
14	Passive skeletal muscle response to impact loading: Experimental testing and inverse modelling. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 27, 214-225.	1.5	23
15	Validation of continuously tagged MRI for the measurement of dynamic 3D skeletal muscle tissue deformation. Medical Physics, 2012, 39, 1793-1810.	1.6	21
16	Quantification of the regional bioarchitecture in the human aorta. Journal of Anatomy, 2020, 236, 142-155.	0.9	21
17	Novel hyperelastic models for large volumetric deformations. International Journal of Solids and Structures, 2020, 193-194, 474-491.	1.3	20
18	Imaging Arterial Fibres Using Diffusion Tensor Imagingâ€”Feasibility Study and Preliminary Results. Eurasip Journal on Advances in Signal Processing, 2010, 2010, .	1.0	17

#	Article	IF	Citations
19	On the importance of 3D, geometrically accurate, and subject-specific finite element analysis for evaluation of in-vivo soft tissue loads. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, 483-491.	0.9	17
20	On advantages of the Kelvin mapping in finite element implementations of deformation processes. Environmental Earth Sciences, 2016, 75, 1.	1.3	16
21	A new compressible hyperelastic model for the multi-axial deformation of blood clot occlusions in vessels. Biomechanics and Modeling in Mechanobiology, 2021, 20, 1317-1335.	1.4	16
22	A MRI-Compatible Combined Mechanical Loading and MR Elastography Setup to Study Deformation-Induced Skeletal Muscle Damage in Rats. PLoS ONE, 2017, 12, e0169864.	1.1	16
23	Validation of SPAMM tagged MRI based measurement of 3D soft tissue deformation. Medical Physics, 2011, 38, 1248-1260.	1.6	14
24	Additive Manufacturing of Multiâ€Scale Porous Soft Tissue Implants That Encourage Vascularization and Tissue Ingrowth. Advanced Healthcare Materials, 2021, 10, e2100229.	3.9	14
25	3D Ultrasound Imaging of Residual Limbs With Camera-Based Motion Compensation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 207-217.	2.7	12
26	Low-Cost Methodology for Skin Strain Measurement of a Flexed Biological Limb. IEEE Transactions on Biomedical Engineering, 2017, 64, 2750-2759.	2.5	11
27	Impact of the Internal Carotid Artery Morphology on in silico Stent-Retriever Thrombectomy Outcome. Frontiers in Medical Technology, 2021, 3, 719909.	1.3	9
28	MRI based 3D finite element modelling to investigate deep tissue injury. Computer Methods in Biomechanics and Biomedical Engineering, 2018, 21, 760-769.	0.9	7
29	Influence of shape-memory stent grafts on local aortic compliance. Biomechanics and Modeling in Mechanobiology, 2021, 20, 2373-2392.	1.4	7
30	Quantitative 3D analysis of tissue damage in a rat model of microembolization. Journal of Biomechanics, 2021, 128, 110723.	0.9	6
31	Finite element analysis of the performance of additively manufactured scaffolds for scapholunate ligament reconstruction. PLoS ONE, 2021, 16, e0256528.	1.1	6
32	Evaluation of a Validation Method for MR Imaging-Based Motion Tracking Using Image Simulation. Eurasip Journal on Advances in Signal Processing, 2009, 2010, .	1.0	5
33	A Dual-VENC Four-Dimensional Flow MRI Framework for Analysis of Subject-Specific Heterogeneous Nonlinear Vessel Deformation. Journal of Biomechanical Engineering, 2020, 142, .	0.6	4
34	A scale space based algorithm for automated segmentation of single shot tagged MRI of shearing deformation. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2013, 26, 229-238.	1.1	3
35	A Novel Dual Non-Invasive Ventilator Continuous Positive Airway Pressure Non-Aerosolization Circuit for Emergency Use in the COVID-19 Pandemic. Journal of Open Hardware, 2020, 4, .	0.2	3
36	Development of a patient-specific cerebral vasculature fluidâ€“structure-interaction model. Journal of Biomechanics, 2022, 133, 110896.	0.9	2

#	Article	IF	Citations
37	CONSTITUTIVE MODELLING OF PASSIVE SKELETAL MUSCLE ANISOTROPY IN TENSION AND COMPRESSION. Journal of Biomechanics, 2012, 45, S487.	0.9	0