Steve A Maas

List of Publications by Year
in descending order

24 papers	1,807 citations	566801 15 h-index	610482 24 g-index
24 all docs	24 docs citations	24 times ranked	1840 citing authors

#	Article	IF	Citations
1	A Numerical Scheme for Anisotropic Reactive Nonlinear Viscoelasticity. Journal of Biomechanical Engineering, 2023, 145, .	0.6	2
2	A Finite Element Algorithm for Large Deformation Biphasic Frictional Contact Between Porous-Permeable Hydrated Soft Tissues. Journal of Biomechanical Engineering, 2022, 144, .	0.6	4
3	A Computational Framework for Atrioventricular Valve Modeling Using Open-Source Software. Journal of Biomechanical Engineering, 2022, 144, .	0.6	7
4	Finite Element Implementation of Biphasic-Fluid Structure Interactions in <scp>febio</scp>. Journal of Biomechanical Engineering, 2021, 143, .	0.6	10
5	A Formulation for Fluidâ€“Structure Interactions in febio Using Mixture Theory. Journal of Biomechanical Engineering, 2019, 141, .	0.6	15
6	Hip chondrolabral mechanics during activities of daily living: Role of the labrum and interstitial fluid pressurization. Journal of Biomechanics, 2018, 69, 113-120.	0.9	17
7	Perspectives on Sharing Models and Related Resources in Computational Biomechanics Research. Journal of Biomechanical Engineering, 2018, 140, .	0.6	16
8	Finite Element Framework for Computational Fluid Dynamics in FEBio. Journal of Biomechanical Engineering, 2018, 140, .	0.6	21
9	A Plugin Framework for Extending the Simulation Capabilities of FEBio. Biophysical Journal, 2018, 115, 1630-1637.	0.2	14
10	Finite Element Formulation of Multiphasic Shell Elements for Cell Mechanics Analyses in FEBio. Journal of Biomechanical Engineering, 2018, 140, .	0.6	11
11	Threeâ€dimensional femoral head coverage in the standing position represents that measured in vivo during gait. Clinical Anatomy, 2018, 31, 1177-1183.	1.5	15
12	FEBio: History and Advances. Annual Review of Biomedical Engineering, 2017, 19, 279-299.	5.7	40
13	A general framework for application of prestrain to computational models of biological materials. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 61, 499-510.	1.5	40
14	Finite element simulation of articular contact mechanics with quadratic tetrahedral elements. Journal of Biomechanics, 2016, 49, 659-667.	0.9	35
15	A coupled model of neovessel growth and matrix mechanics describes and predicts angiogenesis in vitro. Biomechanics and Modeling in Mechanobiology, 2015, 14, 767-782.	1.4	23
16	Specimen-specific predictions of contact stress under physiological loading in the human hip: validation and sensitivity studies. Biomechanics and Modeling in Mechanobiology, 2014, 13, 387-400.	1.4	43
17	Continuum description of the Poisson×³s ratio of ligament and tendon under finite deformation. Journal of Biomechanics, 2014, 47, 3201-3209.	0.9	45
18	Accuracy and Feasibility of Dual Fluoroscopy and Model-Based Tracking to Quantify in Vivo Hip Kinematics During Clinical Exams. Journal of Applied Biomechanics, 2014, 30, 461-470.	0.3	70

#	Article	IF	Citations
19	A new discrete element analysis method for predicting hip joint contact stresses. Journal of Biomechanics, 2013, 46, 1121-1127.	0.9	49
20	FEBio: Finite Elements for Biomechanics. Journal of Biomechanical Engineering, 2012, 134, 011005.	0.6	779
21	Micromechanical models of helical superstructures in ligament and tendon fibers predict large Poisson's ratios. Journal of Biomechanics, 2010, 43, 1394-1400.	0.9	118
22	Effects of idealized joint geometry on finite element predictions of cartilage contact stresses in the hip. Journal of Biomechanics, 2010, 43, 1351-1357.	0.9	160
23	Strain measurement in the left ventricle during systole with deformable image registration. Medical Image Analysis, 2009, 13, 354-361.	7.0	59
24	Validation of Finite Element Predictions of Cartilage Contact Pressure in the Human Hip Joint. Journal of Biomechanical Engineering, 2008, 130, 051008.	0.6	214