Andrea Malandrino

List of Publications by Year
in descending order

25	1,626	516215 16	752256 20
papers	citations	h-index	g-index

28	28	28	1999
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An accurate estimation of bone density improves the accuracy of subject-specific finite element models. Journal of Biomechanics, 2008, 41, 2483-2491.	0.9	333
2	Subject-specific finite element models can accurately predict strain levels in long bones. Journal of Biomechanics, 2007, 40, 2982-2989.	0.9	274
3	Cell contraction induces long-ranged stress stiffening in the extracellular matrix. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4075-4080.	3.3	231
4	Complex mechanics of the heterogeneous extracellular matrix in cancer. Extreme Mechanics Letters, 2018, 21, 25-34.	2.0	158
5	The Effect of Sustained Compression on Oxygen Metabolic Transport in the Intervertebral Disc Decreases with Degenerative Changes. PLoS Computational Biology, 2011, 7, e1002112.	1.5	77
6	Comparison of four methods to simulate swelling in poroelastic finite element models of intervertebral discs. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 1234-1241.	1.5	74
7	Dynamic filopodial forces induce accumulation, damage, and plastic remodeling of 3D extracellular matrices. PLoS Computational Biology, 2019, 15, e1006684.	1.5	74
8	Statistical factorial analysis on the poroelastic material properties sensitivity of the lumbar intervertebral disc under compression, flexion and axial rotation. Journal of Biomechanics, 2009, 42, 2780-2788.	0.9	64
9	In Vitro Modeling of Mechanics in Cancer Metastasis. ACS Biomaterials Science and Engineering, 2018, 4, 294-301.	2.6	64
10	The role of endplate poromechanical properties on the nutrient availability in the intervertebral disc. Osteoarthritis and Cartilage, 2014, 22, 1053-1060.	0.6	63
11	Regional annulus fibre orientations used as a tool for the calibration of lumbar intervertebral disc finite element models. Computer Methods in Biomechanics and Biomedical Engineering, 2013, 16, 923-928.	0.9	38
12	Patientâ€specific fracture risk assessment of vertebrae: A multiscale approach coupling Xâ€ray physics and continuum micromechanics. International Journal for Numerical Methods in Biomedical Engineering, 2016, 32, e02760.	1.0	30
13	Numerical exploration of the combined effect of nutrient supply, tissue condition and deformation in the intervertebral disc. Journal of Biomechanics, 2014, 47, 1520-1525.	0.9	29
14	Anisotropic tissue elasticity in human lumbar vertebra, by means of a coupled ultrasound-micromechanics approach. Materials Letters, 2012, 78, 154-158.	1.3	27
15	On the Relative Relevance of Subject-Specific Geometries and Degeneration-Specific Mechanical Properties for the Study of Cell Death in Human Intervertebral Disk Models. Frontiers in Bioengineering and Biotechnology, 2015, 3, 5.	2.0	26
16	Poroelastic modeling of the intervertebral disc: A path toward integrated studies of tissue biophysics and organ degeneration. MRS Bulletin, 2015, 40, 324-332.	1.7	19
17	Poroelasticity of Living Tissues. , 2019, , 238-245.		17
18	Simulating the sensitivity of cell nutritive environment to composition changes within the intervertebral disc. Journal of the Mechanics and Physics of Solids, 2016, 90, 108-123.	2.3	11

#	Article	IF	Citations
19	Computational modelling of spinal implants. , 2014, , 447-484.		5
20	Poroelastic osmoregulation of living cell volume. IScience, 2021, 24, 103482.	1.9	3
21	Intervertebral Disc Cell Death Explained by Metabolism-Deformation Couplings in a Porohyperelastic Finite Element Model. , 2013, , .		2
22	MECHANICAL EFFECT AND CELL VIABILITY WITHIN THE INTERVERTEBRAL DISC. Journal of Biomechanics, 2012, 45, S605.	0.9	1
23	Intervertebral Disc. , 2018, , 89-103.		1
24	ACCURACY OF SUBJECT-SPECIFIC FINITE ELEMENT MODELS IS IMPROVED BY ACCURATE ESTIMATION OF BONE DENSITY. Journal of Biomechanics, 2008, 41, S99.	0.9	0
25	Models and Experiments in Bioengineering: Why Synergies Are Encouraged. Frontiers in Bioengineering and Biotechnology, 2015, 3, 207.	2.0	0