

Reza Razaghi

List of Publications by Year in descending order

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49
papers

769
citations

567281

15
h-index

580821

25
g-index

49
all docs

49
docs citations

49
times ranked

495
citing authors

#	ARTICLE	IF	CITATIONS
1	A computational fluid-structure interaction model for plaque vulnerability assessment in atherosclerotic human coronary arteries. <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	69
2	A nonlinear finite element simulation of balloon expandable stent for assessment of plaque vulnerability inside a stenotic artery. <i>Medical and Biological Engineering and Computing</i> , 2014, 52, 589-599.	2.8	53
3	A finite element study of balloon expandable stent for plaque and arterial wall vulnerability assessment. <i>Journal of Applied Physics</i> , 2014, 116, 044701.	2.5	46
4	An experimental-finite element analysis on the kinetic energy absorption capacity of polyvinyl alcohol sponge. <i>Materials Science and Engineering C</i> , 2014, 39, 253-258.	7.3	44
5	Plaque and arterial vulnerability investigation in a three-layer atherosclerotic human coronary artery using computational fluid-structure interaction method. <i>Journal of Applied Physics</i> , 2014, 116, .	2.5	42
6	Computing the stresses and deformations of the human eye components due to a high explosive detonation using fluid-structure interaction model. <i>Injury</i> , 2016, 47, 1042-1050.	1.7	39
7	Dynamic simulation and finite element analysis of the human mandible injury protected by polyvinyl alcohol sponge. <i>Materials Science and Engineering C</i> , 2014, 42, 608-614.	7.3	38
8	Risk of rupture of the cerebral aneurysm in relation to traumatic brain injury using a patient-specific fluid-structure interaction model. <i>Computer Methods and Programs in Biomedicine</i> , 2019, 176, 9-16.	4.7	30
9	A comparative study on the elastic modulus of polyvinyl alcohol sponge using different stress-strain definitions. <i>Biomedizinische Technik</i> , 2014, 59, 439-46.	0.8	25
10	Biomechanics of the keratoconic cornea: Theory, segmentation, pressure distribution, and coupled FE-optimization algorithm. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 113, 104155.	3.1	22
11	Quantifying the injury of the human eye components due to tennis ball impact using a computational fluid-structure interaction model. <i>Sports Engineering</i> , 2016, 19, 105-115.	1.1	20
12	Viscoelastic mechanical measurement of the healthy and atherosclerotic human coronary arteries using DIC technique. <i>Artery Research</i> , 2017, 18, 14.	0.6	17
13	Biomechanics of the Healthy and Keratoconic Corneas: A Combination of the Clinical Data, Finite Element Analysis, and Artificial Neural Network. <i>Current Pharmaceutical Design</i> , 2019, 24, 4474-4483.	1.9	17
14	A computational fluid-structure interaction model of the blood flow in the healthy and varicose saphenous vein. <i>Vascular</i> , 2016, 24, 254-263.	0.9	16
15	Computing the influences of different Intraocular Pressures on the human eye components using computational fluid-structure interaction model. <i>Technology and Health Care</i> , 2017, 25, 285-297.	1.2	15
16	A combination of the finite element analysis and experimental indentation via the cornea. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019, 90, 146-154.	3.1	15
17	Collision of the glass shards with the eye: A computational fluid-structure interaction model. <i>Journal of Chemical Neuroanatomy</i> , 2018, 90, 80-86.	2.1	14
18	Mechanical Properties of the Human Sclera Under Various Strain Rates: Elastic, Hyperelastic, and Viscoelastic Models. <i>Journal of Biomaterials and Tissue Engineering</i> , 2017, 7, 686-695.	0.1	14

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19	Biomechanics of human trabecular meshwork in healthy and glaucoma eyes via dynamic Schlemm's canal pressurization. <i>Computer Methods and Programs in Biomedicine</i> , 2022, 221, 106921.	4.7	14
20	Dynamic finite element simulation of the gunshot injury to the human forehead protected by polyvinyl alcohol sponge. <i>Journal of Materials Science: Materials in Medicine</i> , 2016, 27, 74.	3.6	13
21	Finite element modeling of the periodontal ligament under a realistic kinetic loading of the jaw system. <i>Saudi Dental Journal</i> , 2020, 32, 349-356.	1.6	13
22	Finite element modeling of the complex anisotropic mechanical behavior of the human sclera and pia mater. <i>Computer Methods and Programs in Biomedicine</i> , 2022, 215, 106618.	4.7	12
23	A combination of experimental measurement, constitutive damage model, and diffusion tensor imaging to characterize the mechanical properties of the human brain. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2017, 20, 1350-1363.	1.6	11
24	A comparative study to determine the optimal intravitreal injection angle to the eye: A computational fluid-structure interaction model. <i>Technology and Health Care</i> , 2018, 26, 483-498.	1.2	11
25	Ocular biomechanics due to ground blast reinforcement. <i>Computer Methods and Programs in Biomedicine</i> , 2021, 211, 106425.	4.7	11
26	A COMBINATION OF EXPERIMENTAL AND NUMERICAL ANALYSES TO MEASURE THE COMPRESSIVE MECHANICAL PROPERTIES OF TENNIS BALL. <i>Biomedical Engineering - Applications, Basis and Communications</i> , 2015, 27, 1550039.	0.6	10
27	An experimental-nonlinear finite element study of a balloon expandable stent inside a realistic stenotic human coronary artery to investigate plaque and arterial wall injury. <i>Biomedizinische Technik</i> , 2015, 60, 593-602.	0.8	10
28	Dynamic finite element simulation of dental prostheses during chewing using muscle equivalent force and trajectory approaches. <i>Journal of Medical Engineering and Technology</i> , 2017, 41, 314-324.	1.4	10
29	A comparative study on the mechanical performance of the protective headgear materials to minimize the injury to the boxers' head. <i>International Journal of Industrial Ergonomics</i> , 2018, 66, 169-176.	2.6	10
30	Finite element modeling of the eyeglass-related traumatic ocular injuries due to high explosive detonation. <i>Engineering Failure Analysis</i> , 2020, 117, 104835.	4.0	10
31	DYNAMIC SIMULATION AND FINITE ELEMENT ANALYSIS OF THE MAXILLARY BONE INJURY AROUND DENTAL IMPLANT DURING CHEWING DIFFERENT FOOD. <i>Biomedical Engineering - Applications, Basis and Communications</i> , 2016, 28, 1650014.	0.6	9
32	Measurement of the mechanical properties of the handball, volleyball, and basketball using DIC method: a combination of experimental, constitutive, and viscoelastic models. <i>Sport Sciences for Health</i> , 2015, 11, 295-303.	1.3	8
33	A computational dynamic finite element simulation of the thoracic vertebrae under blunt loading: spinal cord injury. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2019, 41, 1.	1.6	8
34	Ocular biomechanics during improvised explosive device blast: A computational study using eye-specific models. <i>Injury</i> , 2022, 53, 1401-1415.	1.7	8
35	Interaction of the blood components and plaque in a stenotic coronary artery. <i>Artery Research</i> , 2018, 24, 47.	0.6	7
36	A nonlinear dynamic finite-element analyses of the basketball-related eye injuries. <i>Sports Engineering</i> , 2018, 21, 359-365.	1.1	7

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37	A patient-specific numerical modeling of the spontaneous coronary artery dissection in relation to atherosclerosis. <i>Computer Methods and Programs in Biomedicine</i> , 2019, 182, 105060.	4.7	7
38	Modeling the biomechanics of the conventional aqueous outflow pathway microstructure in the human eye. <i>Computer Methods and Programs in Biomedicine</i> , 2022, 221, 106922.	4.7	7
39	INVESTIGATING THE EFFECT OF SLOSHING ON THE ENERGY ABSORPTION OF TANK WAGONS CRASH. <i>Transactions of the Canadian Society for Mechanical Engineering</i> , 2015, 39, 187-200.	0.8	5
40	Measurement of the mechanical properties of soccer balls using digital image correlation method. <i>Sport Sciences for Health</i> , 2016, 12, 69-76.	1.3	5
41	A 3-dimensional finite element model of a newly designed adjustable high-heeled shoe. <i>International Journal of Industrial Ergonomics</i> , 2018, 68, 304-310.	2.6	5
42	The role of smoking on the mechanical properties of the human lung. <i>Technology and Health Care</i> , 2018, 26, 963-972.	1.2	5
43	Mechanical measurement of the human cerebellum under compressive loading. <i>Journal of Medical Engineering and Technology</i> , 2019, 43, 55-58.	1.4	5
44	A patient-specific fluid-structure interaction model of the cerebrovascular damage in relation to traumatic brain injury. <i>Trauma</i> , 2021, 23, 33-43.	0.5	4
45	Patient-specific Finite Element Model of Coronary Artery Stenting. <i>Current Pharmaceutical Design</i> , 2019, 24, 4492-4502.	1.9	4
46	Comparative numerical study on the child head injury under different child safety seat angles. <i>Theoretical and Applied Mechanics Letters</i> , 2019, 9, 260-263.	2.8	2
47	Dynamic Finite Element Simulation of the Human Head Under Impact Loading to Compare the Application of Polyvinyl Alcohol Sponge and Expanded Polystyrene Foam as Helmet Materials. <i>Journal of Advanced Physics</i> , 2016, 5, 214-219.	0.4	1
48	A patient-specific finite element model of the smoker's lung during breathing. <i>Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering</i> , 2021, 235, 879-886.	2.5	1
49	A comparative numerical study to compute ocular injury in boxing. <i>Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology</i> , 2020, 234, 125-135.	0.7	0