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List of Publications by Year
in descending order

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112 papers	1,708 citations	361413 20 h-index	345221 36 g-index
112 all docs	112 docs citations	112 times ranked	1563 citing authors

#	Article	IF	Citations
1	Numerical Investigation of Spinal Cord Injury After Flexion-Distraction Injuries at the Cervical Spine. Journal of Biomechanical Engineering, 2022, 144, .	1.3	7
2	Experimental Bi-axial tensile tests of spinal meningeal tissues and constitutive models comparison. Acta Biomaterialia, 2022, 140, 446-456.	8.3	4
3	Cervical spine injury response to direct rear head impact. Clinical Biomechanics, 2022, 92, 105552.	1.2	3
4	Personalized endoprostheses for the proximal humerus and scapulohumeral joint in dogs: Biomechanical study of the musclesâ€™ contributions during locomotion. PLoS ONE, 2022, 17, e0262863.	2.5	1
5	Effect of Compressive Strain Rate on Auxetic Foam. Applied Sciences (Switzerland), 2021, 11, 1207.	2.5	10
6	Tensile mechanical properties of the cervical, thoracic and lumbar porcine spinal meninges. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 115, 104280.	3.1	7
7	A Sensitive and Fast Fiber Bragg Grating-Based Investigation of the Biomechanical Dynamics of In Vitro Spinal Cord Injuries. Sensors, 2021, 21, 1671.	3.8	7
8	Neutron microtomography to investigate the bone-implant interfaceâ€”comparison with histological analysis. Physics in Medicine and Biology, 2021, 66, 105006.	3.0	8
9	Biomechanical evaluation of bovine stifles stabilized with an innovative braided superelastic nitinol prosthesis after transection of the cranial cruciate ligament. Veterinary Surgery, 2021, 50, 1398-1408.	1.0	3
10	Three-dimensional kinematic evaluation of lateral suture stabilization in an in vitro canine cranial cruciate deficient stifle model. PLoS ONE, 2021, 16, e0261187.	2.5	1
11	Assessing the Global Range of Motion of the Helmeted Head Through Rotational and Translational Measurements. International Journal of Crashworthiness, 2020, 25, 321-327.	1.9	4
12	Limbâ€sparing in dogs using patientâ€specific, threeâ€dimensionalâ€printed endoprosthesis for distal radial osteosarcoma: A pilot study. Veterinary and Comparative Oncology, 2020, 18, 92-104.	1.8	18
13	Quantitative localization of the entry point of the lateral ascending branch of the anterior circumflex humeral artery: a high definition CT-scan radiological study. Surgical and Radiologic Anatomy, 2020, 42, 233-237.	1.2	5
14	Dynamics of spinal cord compression with different patterns of thoracolumbar burst fractures: Numerical simulations using finite element modelling. Clinical Biomechanics, 2020, 72, 186-194.	1.2	22
15	Predictive Model for Designing Soft-Tissue Mimicking Ultrasound Phantoms With Adjustable Elasticity. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2020, 67, 715-726.	3.0	13
16	Strain Rate Dependent Behavior of Vinyl Nitrile Helmet Foam in Compression and Combined Compression and Shear. Applied Sciences (Switzerland), 2020, 10, 8286.	2.5	12
17	Morphological features of thoracolumbar burst fractures associated with neurological outcome in thoracolumbar traumatic spinal cord injury. European Spine Journal, 2020, 29, 2505-2512.	2.2	4
18	Effect of experimental, morphological and mechanical factors on the murine spinal cord subjected to transverse contusion: A finite element study. PLoS ONE, 2020, 15, e0232975.	2.5	18

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19	Contribution of injured posterior ligamentous complex and intervertebral disc on post-traumatic instability at the cervical spine. Computer Methods in Biomechanics and Biomedical Engineering, 2020, 23, 832-843.	1.6	4
20	Numerical investigation of the relative effect of disc bulging and ligamentum flavum hypertrophy on the mechanism of central cord syndrome. Clinical Biomechanics, 2020, 74, 58-65.	1.2	14
21	Biocompatibility and mechanical stability of Nitinol as biomaterial for intra-articular prosthetic devices. Materialia, 2020, 9, 100567.	2.7	13
22	Title is missing!. , 2020, 15, e0232975.		0
23	Title is missing!. , 2020, 15, e0232975.		0
24	Title is missing!. , 2020, 15, e0232975.		0
25	Title is missing!. , 2020, 15, e0232975.		0
26	Personalized 3D-printed endoprostheses for limb sparing in dogs: Modeling and in vitro testing. Medical Engineering and Physics, 2019, 71, 17-29.	1.7	15
27	Traumatic Spinal Cord Injuries with Fractures in a QuÃ©bec Level I Trauma Center. Canadian Journal of Neurological Sciences, 2019, 46, 727-734.	0.5	8
28	Teaching simulated arthroscopic Bankart repair: residentsâ€™ assessment at the Annual Shoulder Course. Canadian Journal of Surgery, 2019, 62, 227-234.	1.2	2
29	Three-dimensional kinematic evaluation of Tightrope CCL in a canine cranial cruciate deficient stifle model. Canadian Journal of Veterinary Research, 2019, 83, 317-321.	0.2	1
30	Quasi-static tensile properties of the Cranial Cruciate Ligament (CrCL) in adult cattle: towards the design of a prosthetic CrCL. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 79, 239-245.	3.1	5
31	High-speed video analysis improves the accuracy of spinal cord compression measurement in a mouse contusion model. Journal of Neuroscience Methods, 2018, 293, 1-5.	2.5	9
32	Model-based correction of ultrasound image deformations due to probe pressure. Proceedings of SPIE, 2017, , .	0.8	2
33	Impact of anchor type on porcine lumbar biomechanics: Finite element modelling and in-vitro validation. Clinical Biomechanics, 2017, 43, 86-94.	1.2	4
34	Instrumented Spinal Cord Surrogate Using Optical Fiber: Role of the Fiber's Location. , 2017, , .		0
35	Impact of spinal rod stiffness on porcine lumbar biomechanics: Finite element model validation and parametric study. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2017, 231, 1071-1080.	1.8	2
36	Suture bridge transosseous equivalent repair is stronger than transosseous tied braided-tape. Journal of Orthopaedic Science, 2017, 22, 1120-1125.	1.1	4

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37	Development of an instrumented spinal cord surrogate using optical fibers: A feasibility study. Medical Engineering and Physics, 2017, 48, 212-216.	1.7	1
38	Substantial vertebral body osteophytes protect against severe vertebral fractures in compression. PLoS ONE, 2017, 12, e0186779.	2.5	10
39	Assessment of Regional Bone Density in Fractured Vertebrae Using Quantitative Computed Tomography. Asian Spine Journal, 2017, 11, 57-62.	2.0	6
40	Experimental Model of Proximal Junctional Fracture after Multilevel Posterior Spinal Instrumentation. BioMed Research International, 2016, 2016, 1-7.	1.9	1
41	Effect of elbow position on radiographic measurements of radio-capitellar alignment. World Journal of Orthopedics, 2016, 7, 117.	1.8	14
42	Tiâ€“Ni Rods with Variable Stiffness for Spine Stabilization: Manufacture and Biomechanical Evaluation. Shape Memory and Superelasticity, 2016, 2, 3-11.	2.2	6
43	Geometrical variations in white and gray matter affect the biomechanics of spinal cord injuries more than the arachnoid space. Advances in Mechanical Engineering, 2016, 8, 168781401666470.	1.6	19
44	Strain rate dependent behavior of the porcine spinal cord under transverse dynamic compression. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2016, 230, 858-866.	1.8	13
45	New Methodology for Comparative Evaluation of the Abrasive Properties of Orthopedic Cables, Cut-Out Reciprocal Testing (CORT). Experimental Techniques, 2016, 40, 35-42.	1.5	0
46	Biomechanical assessment of the stabilization capacity of monolithic spinal rods with different flexural stiffness and anchoring arrangement. Clinical Biomechanics, 2015, 30, 1026-1035.	1.2	15
47	Factors affecting intradiscal pressure measurement during in vitro biomechanical tests. Scoliosis, 2015, 10, .	0.4	4
48	Factors affecting intradiscal pressure measurement during in vitro biomechanical tests. Scoliosis, 2015, 10, S1.	0.4	8
49	In vitro evaluation of pedicle screw loosening mechanism: a preliminary study on animal model. Scoliosis, 2015, 10, .	0.4	3
50	In-vitro assessment of the stabilization capacity of monolithic spinal rods with variable flexural stiffness: Methodology and examples. , 2015, 2015, 3913-6.		2
51	Implementation of a 3D porcine lumbar finite element model for the simulation of monolithic spinal rods with variable flexural stiffness. , 2015, 2015, 917-20.		0
52	Braided tubular superelastic cables provide improved spinal stability compared to multifilament sublaminar cables. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2015, 229, 645-651.	1.8	1
53	An Axisymmetric Finite Element Model to Study the Earplug Contribution to the Bone Conduction Occlusion Effect. Acta Acustica United With Acustica, 2015, 101, 775-788.	0.8	9
54	Comparison of Pedicle Screw Loosening Mechanisms and the Effect on Fixation Strength. Journal of Biomechanical Engineering, 2015, 137, 121003.	1.3	21

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55	Biomechanical analysis of traumatic mesenteric avulsion. Medical and Biological Engineering and Computing, 2015, 53, 187-194.	2.8	11
56	Transosseous braided-tape and double-row fixations are better than tension band for avulsion-type greater tuberosity fractures. Injury, 2015, 46, 1007-1012.	1.7	20
57	Braided tape suture provides superior bone pull-through strength than wire suture in greaterÂtuberosity of the humerus. Journal of Orthopaedics, 2015, 12, S14-S17.	1.3	11
58	Simulation of high energy vertebral fractures on complete porcine specimens. , 2015, 2015, 3901-4.		0
59	Monolithic superelastic rods with variable flexural stiffness for spinal fusion: Simplified finite element analysis of an instrumented spine segment. , 2014, 2014, 6605-8.		5
60	Three-dimensional finite element modeling of the human external ear: Simulation study of the bone conduction occlusion effect. Journal of the Acoustical Society of America, 2014, 135, 1433-1444.	1.1	36
61	The Influence of Proximal Anchors on the Risk of Proximal Junctional Fracture in the Osteoporotic Spine. Journal of Spinal Disorders and Techniques, 2014, 27, E49-E54.	1.9	14
62	Radial Head Subluxation After Malalignment of the Proximal Ulna. Journal of Orthopaedic Trauma, 2014, 28, 464-469.	1.4	23
63	The relevance of sacral and sacro-pelvic morphology in developmental lumbosacral spondylolisthesis: are they equally important?. European Spine Journal, 2014, 23, 157-162.	2.2	10
64	Biomechanics of thoracolumbar junction vertebral fractures from various kinematic conditions. Medical and Biological Engineering and Computing, 2014, 52, 87-94.	2.8	25
65	Locking plate fixation provides superior fixation of humerus split type greater tuberosity fractures than tension bands and double row suture bridges. Clinical Biomechanics, 2014, 29, 1003-1008.	1.2	27
66	Anterior locking plate reduces trochanteric fracture migrations during hip extension. Clinical Biomechanics, 2014, 29, 930-935.	1.2	3
67	Monolithic superelastic rods with variable flexural stiffness for spinal fusion: Modeling of the processingâ€“properties relationship. Medical Engineering and Physics, 2014, 36, 1455-1463.	1.7	4
68	Biomechanical testing of a hybrid locking plate fixation of equine sesamoid osteotomies. Veterinary and Comparative Orthopaedics and Traumatology, 2014, 27, 107-112.	0.5	2
69	Morphometrics of the Entire Human Spinal Cord and Spinal Canal Measured From In Vivo High-Resolution Anatomical Magnetic Resonance Imaging. Spine, 2014, 39, E262-E269.	2.0	56
70	Does Radiographic Beam Angle Affect the Radiocapitellar Ratio Measurement of Subluxation in the Elbow?. Clinical Orthopaedics and Related Research, 2013, 471, 2556-2562.	1.5	3
71	Improving greater trochanteric reattachment with a novel cable plate system. Medical Engineering and Physics, 2013, 35, 383-391.	1.7	9
72	Method to Geometrically Personalize a Detailed Finite-Element Model of the Spine. IEEE Transactions on Biomedical Engineering, 2013, 60, 2014-2021.	4.2	21

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73	Demographic and anthropometric factors affecting elbow range of motion in healthy adults. Journal of Shoulder and Elbow Surgery, 2013, 22, 88-93.	2.6	14
74	A biomechanical study comparing polyaxial locking screw mechanisms. Injury, 2013, 44, 1358-1362.	1.7	36
75	Initial Tension Loss in Cerclage Cables. Journal of Arthroplasty, 2013, 28, 1509-1512.	3.1	7
76	Manufacturing of monolithic superelastic rods with variable properties for spinal correction: Feasibility study. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 22, 1-11.	3.1	14
77	Compressive Loading of the Spine May Affect the Spinal Canal Encroachment of Burst Fractures. Journal of Spinal Disorders and Techniques, 2013, 26, 342-346.	1.9	6
78	Implementation of a simplified, artificial external ear test fixture for measurement of the earplug induced auditory occlusion effect. Proceedings of Meetings on Acoustics, 2013, , .	0.3	0
79	Quality of Reamed Surface Using Serrated Blades as Compared to a Conventional Acetabular Reamer. , 2013, , .		1
80	Biomechanical Analysis of Trochanteric Fracture Fixations Using a Y-Shaped Locking Plate. Journal of Orthopaedic Trauma, 2013, 27, 702-707.	1.4	10
81	Axial Load-Bearing Capacity of an Osteochondral Autograft Stabilized With a Resorbable Osteoconductive Bone Cement Compared With a Press-Fit Graft in a Bovine Model. American Journal of Sports Medicine, 2012, 40, 1046-1052.	4.2	3
82	Investigation of Motorcyclist Cervical Spine Trauma Using HUMOS Model. Traffic Injury Prevention, 2012, 13, 519-528.	1.4	10
83	Effect of glenoid implant design on glenohumeral stability: An experimental study. Clinical Biomechanics, 2012, 27, 782-788.	1.2	8
84	Radial head translation measurement in healthy individuals: the radiocapitellar ratio. Journal of Shoulder and Elbow Surgery, 2012, 21, 574-579.	2.6	16
85	The influence of proximal ulnar morphology on elbow range of motion. Journal of Shoulder and Elbow Surgery, 2012, 21, 384-388.	2.6	27
86	The effects of femoral neck cut, cable tension, and muscles forces on the greater trochanter fixation. Medical and Biological Engineering and Computing, 2012, 50, 411-417.	2.8	5
87	Reattachment of Complex Femoral Greater Trochanteric Nonunions with Dual Locking Plates. Journal of Arthroplasty, 2012, 27, 638-642.	3.1	18
88	Testing System for the Comparative Evaluation of Greater Trochanter Re-attachment Devices. Experimental Techniques, 2012, 36, 74-82.	1.5	2
89	Comparison of the influences of structural characteristics on bulk mechanical behaviour: experimental study using a bone surrogate. Medical and Biological Engineering and Computing, 2012, 50, 61-67.	2.8	8
90	Validity of Goniometric Elbow Measurements: Comparative Study with a Radiographic Method. Clinical Orthopaedics and Related Research, 2011, 469, 3134-3140.	1.5	123

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91	Effect of force tightening on cable tension and displacement in greater trochanter reattachment. , 2011, 2011, 5749-52.		3
92	Force relaxation and sprinback of novel elastic orthopedic cables. , 2011, 2011, 5758-61.		1
93	Effect of Spinal Level and Loading Conditions on the Production of Vertebral Burst Fractures in a Porcine Model. Journal of Biomechanical Engineering, 2011, 133, 094503.	1.3	9
94	Validation of an Experimental Testing Apparatus Simulating the Stance Phase of a Canine Pelvic Limb at Trot in the Normal and the Cranial Cruciateâ€Deficient Stifle: An In Vitro Kinematic Study. Veterinary Surgery, 2010, 39, 390-397.	1.0	7
95	A low-cost thermoelectrically cooled tissue clamp for in vitro cyclic loading and load-to-failure testing of muscles and tendons. Medical Engineering and Physics, 2009, 31, 1182-1186.	1.7	20
96	Assessment of Spinal Flexibility in Adolescent Idiopathic Scoliosis. Spine, 2009, 34, 591-597.	2.0	50
97	Influence of Sacral Morphology in Developmental Spondylolisthesis. Spine, 2008, 33, 2185-2191.	2.0	34
98	Three-Dimensional (3-D) Reconstruction of the Spine From a Single X-Ray Image and Prior Vertebra Models. IEEE Transactions on Biomedical Engineering, 2004, 51, 1628-1639.	4.2	30
99	Biomechanical modelling of segmental instrumentation for surgical correction of 3D spinal deformities using Euler-Bernoulli thin-beam elastic deformation equations. Medical and Biological Engineering and Computing, 2004, 42, 216-221.	2.8	11
100	Patient-specific mechanical properties of a flexible multi-body model of the scoliotic spine. Medical and Biological Engineering and Computing, 2004, 42, 55-60.	2.8	74
101	Spinal shape changes resulting from scoliotic spine surgical instrumentation expressed as intervertebral rotations and centers of rotation. Journal of Biomechanics, 2004, 37, 173-180.	2.1	21
102	Personalized biomechanical simulations of orthotic treatment in idiopathic scoliosis. Clinical Biomechanics, 2004, 19, 190-195.	1.2	50
103	Biomechanical Evaluation of the Boston Brace System for the Treatment of Adolescent Idiopathic Scoliosis. Spine, 2004, 29, 26-32.	2.0	54
104	Assessment of the 3-d reconstruction and high-resolution geometrical modeling of the human skeletal trunk from 2-d radiographic images. IEEE Transactions on Biomedical Engineering, 2003, 50, 989-998.	4.2	157
105	Biomechanical Modeling of Posterior Instrumentation of the Scoliotic Spine. Computer Methods in Biomechanics and Biomedical Engineering, 2003, 6, 27-32.	1.6	58
106	Title is missing!. Spine, 2003, 28, 1672-1677.	2.0	9
107	Boston Brace Correction in Idiopathic Scoliosis: A Biomechanical Study. Spine, 2003, 28, 1672-1677.	2.0	53
108	The effect of the Relton-Hall operative frame on trunk deformity in adolescent idiopathic scoliosis. European Spine Journal, 2002, 11, 556-560.	2.2	2

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109	Three-dimensional imaging for the surgical treatment of idiopathic scoliosis in adolescents. Canadian Journal of Surgery, 2002, 45, 453-8.	1.2	15
110	Variability of Strap Tension in Brace Treatment for Adolescent Idiopathic Scoliosis. Spine, 1999, 24, 349-354.	2.0	46
111	Three-dimensional measurement of wedged scoliotic vertebrae and intervertebral disks. European Spine Journal, 1998, 7, 59-65.	2.2	48
112	Estimation of 3D location and orientation of human vertebral facet joints from standing digital radiographs. Medical and Biological Engineering and Computing, 1998, 36, 389-394.	2.8	5