

Yvan Petit BIng, MScA

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7864929/publications.pdf>

Version: 2024-02-01

112
papers

1,708
citations

361045

20
h-index

344852

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-Distraktion Injuries at the Cervical Spine. <i>Journal of Biomechanical Engineering</i> , 2022, 144, .	0.6	7
2	Experimental Bi-axial tensile tests of spinal meningeal tissues and constitutive models comparison. <i>Acta Biomaterialia</i> , 2022, 140, 446-456.	4.1	4
3	Cervical spine injury response to direct rear head impact. <i>Clinical Biomechanics</i> , 2022, 92, 105552.	0.5	3
4	Personalized endoprotheses for the proximal humerus and scapulohumeral joint in dogs: Biomechanical study of the musclesâ€™ contributions during locomotion. <i>PLoS ONE</i> , 2022, 17, e0262863.	1.1	1
5	Effect of Compressive Strain Rate on Auxetic Foam. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 1207.	1.3	10
6	Tensile mechanical properties of the cervical, thoracic and lumbar porcine spinal meninges. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 115, 104280.	1.5	7
7	A Sensitive and Fast Fiber Bragg Grating-Based Investigation of the Biomechanical Dynamics of In Vitro Spinal Cord Injuries. <i>Sensors</i> , 2021, 21, 1671.	2.1	7
8	Neutron microtomography to investigate the bone-implant interfaceâ€™ comparison with histological analysis. <i>Physics in Medicine and Biology</i> , 2021, 66, 105006.	1.6	8
9	Biomechanical evaluation of bovine stifles stabilized with an innovative braided superelastic nitinol prosthesis after transection of the cranial cruciate ligament. <i>Veterinary Surgery</i> , 2021, 50, 1398-1408.	0.5	3
10	Three-dimensional kinematic evaluation of lateral suture stabilization in an in vitro canine cranial cruciate deficient stifle model. <i>PLoS ONE</i> , 2021, 16, e0261187.	1.1	1
11	Assessing the Global Range of Motion of the Helmeted Head Through Rotational and Translational Measurements. <i>International Journal of Crashworthiness</i> , 2020, 25, 321-327.	1.1	4
12	Limbâ€™sparing in dogs using patientâ€™specific, threeâ€™dimensionalâ€™printed endoprosthesis for distal radial osteosarcoma: A pilot study. <i>Veterinary and Comparative Oncology</i> , 2020, 18, 92-104.	0.8	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. <i>Surgical and Radiologic Anatomy</i> , 2020, 42, 233-237.	0.6	5
14	Dynamics of spinal cord compression with different patterns of thoracolumbar burst fractures: Numerical simulations using finite element modelling. <i>Clinical Biomechanics</i> , 2020, 72, 186-194.	0.5	22
15	Predictive Model for Designing Soft-Tissue Mimicking Ultrasound Phantoms With Adjustable Elasticity. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2020, 67, 715-726.	1.7	13
16	Strain Rate Dependent Behavior of Vinyl Nitrile Helmet Foam in Compression and Combined Compression and Shear. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 8286.	1.3	12
17	Morphological features of thoracolumbar burst fractures associated with neurological outcome in thoracolumbar traumatic spinal cord injury. <i>European Spine Journal</i> , 2020, 29, 2505-2512.	1.0	4
18	Effect of experimental, morphological and mechanical factors on the murine spinal cord subjected to transverse contusion: A finite element study. <i>PLoS ONE</i> , 2020, 15, e0232975.	1.1	18

#	ARTICLE	IF	CITATIONS
19	Contribution of injured posterior ligamentous complex and intervertebral disc on post-traumatic instability at the cervical spine. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2020, 23, 832-843.	0.9	4
20	Numerical investigation of the relative effect of disc bulging and ligamentum flavum hypertrophy on the mechanism of central cord syndrome. <i>Clinical Biomechanics</i> , 2020, 74, 58-65.	0.5	14
21	Biocompatibility and mechanical stability of Nitinol as biomaterial for intra-articular prosthetic devices. <i>Materialia</i> , 2020, 9, 100567.	1.3	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 endoprotheses for limb sparing in dogs: Modeling and in vitro testing. <i>Medical Engineering and Physics</i> , 2019, 71, 17-29.	0.8	15
27	Traumatic Spinal Cord Injuries with Fractures in a Québec Level I Trauma Center. <i>Canadian Journal of Neurological Sciences</i> , 2019, 46, 727-734.	0.3	8
28	Teaching simulated arthroscopic Bankart repair: residents'™ assessment at the Annual Shoulder Course. <i>Canadian Journal of Surgery</i> , 2019, 62, 227-234.	0.5	2
29	Three-dimensional kinematic evaluation of Tightrope CCL in a canine cranial cruciate deficient stifle model. <i>Canadian Journal of Veterinary Research</i> , 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. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 79, 239-245.	1.5	5
31	High-speed video analysis improves the accuracy of spinal cord compression measurement in a mouse contusion model. <i>Journal of Neuroscience Methods</i> , 2018, 293, 1-5.	1.3	9
32	Model-based correction of ultrasound image deformations due to probe pressure. <i>Proceedings of SPIE</i> , 2017, , .	0.8	2
33	Impact of anchor type on porcine lumbar biomechanics: Finite element modelling and in-vitro validation. <i>Clinical Biomechanics</i> , 2017, 43, 86-94.	0.5	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. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2017, 231, 1071-1080.	1.0	2
36	Suture bridge transosseous equivalent repair is stronger than transosseous tied braided-tape. <i>Journal of Orthopaedic Science</i> , 2017, 22, 1120-1125.	0.5	4

#	ARTICLE	IF	CITATIONS
37	Development of an instrumented spinal cord surrogate using optical fibers: A feasibility study. <i>Medical Engineering and Physics</i> , 2017, 48, 212-216.	0.8	1
38	Substantial vertebral body osteophytes protect against severe vertebral fractures in compression. <i>PLoS ONE</i> , 2017, 12, e0186779.	1.1	10
39	Assessment of Regional Bone Density in Fractured Vertebrae Using Quantitative Computed Tomography. <i>Asian Spine Journal</i> , 2017, 11, 57-62.	0.8	6
40	Experimental Model of Proximal Junctional Fracture after Multilevel Posterior Spinal Instrumentation. <i>BioMed Research International</i> , 2016, 2016, 1-7.	0.9	1
41	Effect of elbow position on radiographic measurements of radio-capitellar alignment. <i>World Journal of Orthopedics</i> , 2016, 7, 117.	0.8	14
42	Tiâ€“Ni Rods with Variable Stiffness for Spine Stabilization: Manufacture and Biomechanical Evaluation. <i>Shape Memory and Superelasticity</i> , 2016, 2, 3-11.	1.1	6
43	Geometrical variations in white and gray matter affect the biomechanics of spinal cord injuries more than the arachnoid space. <i>Advances in Mechanical Engineering</i> , 2016, 8, 168781401666470.	0.8	19
44	Strain rate dependent behavior of the porcine spinal cord under transverse dynamic compression. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2016, 230, 858-866.	1.0	13
45	New Methodology for Comparative Evaluation of the Abrasive Properties of Orthopedic Cables, Cut-Out Reciprocal Testing (CORT). <i>Experimental Techniques</i> , 2016, 40, 35-42.	0.9	0
46	Biomechanical assessment of the stabilization capacity of monolithic spinal rods with different flexural stiffness and anchoring arrangement. <i>Clinical Biomechanics</i> , 2015, 30, 1026-1035.	0.5	15
47	Factors affecting intradiscal pressure measurement during in vitro biomechanical tests. <i>Scoliosis</i> , 2015, 10, .	0.4	4
48	Factors affecting intradiscal pressure measurement during in vitro biomechanical tests. <i>Scoliosis</i> , 2015, 10, S1.	0.4	8
49	In vitro evaluation of pedicle screw loosening mechanism: a preliminary study on animal model. <i>Scoliosis</i> , 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. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2015, 229, 645-651.	1.0	1
53	An Axisymmetric Finite Element Model to Study the Earplug Contribution to the Bone Conduction Occlusion Effect. <i>Acta Acustica United With Acustica</i> , 2015, 101, 775-788.	0.8	9
54	Comparison of Pedicle Screw Loosening Mechanisms and the Effect on Fixation Strength. <i>Journal of Biomechanical Engineering</i> , 2015, 137, 121003.	0.6	21

#	ARTICLE	IF	CITATIONS
55	Biomechanical analysis of traumatic mesenteric avulsion. <i>Medical and Biological Engineering and Computing</i> , 2015, 53, 187-194.	1.6	11
56	Transosseous braided-tape and double-row fixations are better than tension band for avulsion-type greater tuberosity fractures. <i>Injury</i> , 2015, 46, 1007-1012.	0.7	20
57	Braided tape suture provides superior bone pull-through strength than wire suture in greater tuberosity of the humerus. <i>Journal of Orthopaedics</i> , 2015, 12, S14-S17.	0.6	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. <i>Journal of the Acoustical Society of America</i> , 2014, 135, 1433-1444.	0.5	36
61	The Influence of Proximal Anchors on the Risk of Proximal Junctional Fracture in the Osteoporotic Spine. <i>Journal of Spinal Disorders and Techniques</i> , 2014, 27, E49-E54.	1.8	14
62	Radial Head Subluxation After Malalignment of the Proximal Ulna. <i>Journal of Orthopaedic Trauma</i> , 2014, 28, 464-469.	0.7	23
63	The relevance of sacral and sacro-pelvic morphology in developmental lumbosacral spondylolisthesis: are they equally important?. <i>European Spine Journal</i> , 2014, 23, 157-162.	1.0	10
64	Biomechanics of thoracolumbar junction vertebral fractures from various kinematic conditions. <i>Medical and Biological Engineering and Computing</i> , 2014, 52, 87-94.	1.6	25
65	Locking plate fixation provides superior fixation of humerus split type greater tuberosity fractures than tension bands and double row suture bridges. <i>Clinical Biomechanics</i> , 2014, 29, 1003-1008.	0.5	27
66	Anterior locking plate reduces trochanteric fracture migrations during hip extension. <i>Clinical Biomechanics</i> , 2014, 29, 930-935.	0.5	3
67	Monolithic superelastic rods with variable flexural stiffness for spinal fusion: Modeling of the processing properties relationship. <i>Medical Engineering and Physics</i> , 2014, 36, 1455-1463.	0.8	4
68	Biomechanical testing of a hybrid locking plate fixation of equine sesamoid osteotomies. <i>Veterinary and Comparative Orthopaedics and Traumatology</i> , 2014, 27, 107-112.	0.2	2
69	Morphometrics of the Entire Human Spinal Cord and Spinal Canal Measured From In Vivo High-Resolution Anatomical Magnetic Resonance Imaging. <i>Spine</i> , 2014, 39, E262-E269.	1.0	56
70	Does Radiographic Beam Angle Affect the Radiocapitellar Ratio Measurement of Subluxation in the Elbow?. <i>Clinical Orthopaedics and Related Research</i> , 2013, 471, 2556-2562.	0.7	3
71	Improving greater trochanteric reattachment with a novel cable plate system. <i>Medical Engineering and Physics</i> , 2013, 35, 383-391.	0.8	9
72	Method to Geometrically Personalize a Detailed Finite-Element Model of the Spine. <i>IEEE Transactions on Biomedical Engineering</i> , 2013, 60, 2014-2021.	2.5	21

#	ARTICLE	IF	CITATIONS
73	Demographic and anthropometric factors affecting elbow range of motion in healthy adults. Journal of Shoulder and Elbow Surgery, 2013, 22, 88-93.	1.2	14
74	A biomechanical study comparing polyaxial locking screw mechanisms. Injury, 2013, 44, 1358-1362.	0.7	36
75	Initial Tension Loss in Cerclage Cables. Journal of Arthroplasty, 2013, 28, 1509-1512.	1.5	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.	1.5	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.	1.8	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.	0.7	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.	1.9	3
82	Investigation of Motorcyclist Cervical Spine Trauma Using HUMOS Model. Traffic Injury Prevention, 2012, 13, 519-528.	0.6	10
83	Effect of glenoid implant design on glenohumeral stability: An experimental study. Clinical Biomechanics, 2012, 27, 782-788.	0.5	8
84	Radial head translation measurement in healthy individuals: the radiocapitellar ratio. Journal of Shoulder and Elbow Surgery, 2012, 21, 574-579.	1.2	16
85	The influence of proximal ulnar morphology on elbow range of motion. Journal of Shoulder and Elbow Surgery, 2012, 21, 384-388.	1.2	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.	1.6	5
87	Reattachment of Complex Femoral Greater Trochanteric Nonunions with Dual Locking Plates. Journal of Arthroplasty, 2012, 27, 638-642.	1.5	18
88	Testing System for the Comparative Evaluation of Greater Trochanter Re-attachment Devices. Experimental Techniques, 2012, 36, 74-82.	0.9	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.	1.6	8
90	Validity of Goniometric Elbow Measurements: Comparative Study with a Radiographic Method. Clinical Orthopaedics and Related Research, 2011, 469, 3134-3140.	0.7	123

#	ARTICLE	IF	CITATIONS
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.	0.6	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€œDeficient Stifle: An In Vitro Kinematic Study. Veterinary Surgery, 2010, 39, 390-397.	0.5	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.	0.8	20
96	Assessment of Spinal Flexibility in Adolescent Idiopathic Scoliosis. Spine, 2009, 34, 591-597.	1.0	50
97	Influence of Sacral Morphology in Developmental Spondylolisthesis. Spine, 2008, 33, 2185-2191.	1.0	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.	2.5	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.	1.6	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.	1.6	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.	0.9	21
102	Personalized biomechanical simulations of orthotic treatment in idiopathic scoliosis. Clinical Biomechanics, 2004, 19, 190-195.	0.5	50
103	Biomechanical Evaluation of the Boston Brace System for the Treatment of Adolescent Idiopathic Scoliosis. Spine, 2004, 29, 26-32.	1.0	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.	2.5	157
105	Biomechanical Modeling of Posterior Instrumentation of the Scoliotic Spine. Computer Methods in Biomechanics and Biomedical Engineering, 2003, 6, 27-32.	0.9	58
106	Title is missing!. Spine, 2003, 28, 1672-1677.	1.0	9
107	Boston Brace Correction in Idiopathic Scoliosis: A Biomechanical Study. Spine, 2003, 28, 1672-1677.	1.0	53
108	The effect of the Relton-Hall operative frame on trunk deformity in adolescent idiopathic scoliosis. European Spine Journal, 2002, 11, 556-560.	1.0	2

#	ARTICLE	IF	CITATIONS
109	Three-dimensional imaging for the surgical treatment of idiopathic scoliosis in adolescents. Canadian Journal of Surgery, 2002, 45, 453-8.	0.5	15
110	Variability of Strap Tension in Brace Treatment for Adolescent Idiopathic Scoliosis. Spine, 1999, 24, 349-354.	1.0	46
111	Three-dimensional measurement of wedged scoliotic vertebrae and intervertebral disks. European Spine Journal, 1998, 7, 59-65.	1.0	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.	1.6	5