Philippe BÃ¼chler

List of Publications by Year
in descending order

42 papers	1,049 citations	471509 17 h-index	414414 32 g-index
43 all docs	43 docs citations	43 times ranked	1179 citing authors

#	Article	IF	Citations
1	Age‐and sex‐specific normativevalues of bone mineral densityin theadultglenoid. Journal of Orthopaedic Research, 2022, , .	2.3	2
2	Deep learning for the rapid automatic quantification and characterization of rotator cuff muscle degeneration from shoulder CT datasets. European Radiology, 2021, 31, 181-190.	4.5	28
3	Oxygen Kinetics During Corneal Cross-linking With and Without Supplementary Oxygen. American Journal of Ophthalmology, 2021, 223, 368-376.	3.3	39
4	The Spinebot—A Robotic Device to Intraoperatively Quantify Spinal Stiffness. Journal of Medical Devices, Transactions of the ASME, 2021, 15, .	0.7	0
5	Coaxial micro-extrusion of a calcium phosphate ink with aqueous solvents improves printing stability, structure fidelity and mechanical properties. Acta Biomaterialia, 2021, 125, 322-332.	8.3	7
6	Towards a better understanding of the posttreatment hemodynamic behaviors in femoropopliteal arteries through personalized computational models based on OCT images. Scientific Reports, 2021, 11, 16633.	3.3	3
7	Corneal Biomechanics After Intrastromal Ring Surgery: Optomechanical In Silico Assessment. Translational Vision Science and Technology, 2020, 9, 26.	2.2	12
8	Automated CT bone segmentation using statistical shape modelling and local template matching. Computer Methods in Biomechanics and Biomedical Engineering, 2019, 22, 1303-1310.	1.6	20
9	Prediction of restenosis based on hemodynamical markers in revascularized femoro-popliteal arteries during leg flexion. Biomechanics and Modeling in Mechanobiology, 2019, 18, 1883-1893.	2.8	23
10	Patellar bone strain after total knee arthroplasty is correlated with bone mineral density and body mass index. Medical Engineering and Physics, 2019, 68, 17-24.	1.7	4
11	How Symmetrical Are Bony Orbits in Humans?. Journal of Oral and Maxillofacial Surgery, 2019, 77, 118-125.	1.2	12
12	Towards Model-Based Characterization of Biomechanical Tumor Growth Phenotypes. Lecture Notes in Computer Science, 2019, , 75-86.	1.3	14
13	Anatomy and mechanical properties of the anal sphincter muscles in healthy senior volunteers. Neurogastroenterology and Motility, 2018, 30, e13335.	3.0	4
14	Evaluation of a Mechanically Coupled Reaction–Diffusion Model for Macroscopic Brain Tumor Growth. Lecture Notes in Bioengineering, 2018, , 57-64.	0.4	1
15	A statistical shape model to predict the premorbid glenoid cavity. Journal of Shoulder and Elbow Surgery, 2018, 27, 1800-1808.	2.6	25
16	In Vivo Quantification of the Deformations of the Femoropopliteal Segment. Journal of Endovascular Therapy, 2017, 24, 27-34.	1.5	26
17	Numerical Modeling of Nitinol Stent Oversizing in Arteries with Clinically Relevant Levels of Peripheral Arterial Disease: The Influence of Plaque Type on the Outcomes of Endovascular Therapy. Annals of Biomedical Engineering, 2017, 45, 1420-1433.	2.5	12
18	Effect of Stent Implantation on the Deformations of the Superficial Femoral Artery and Popliteal Artery: In Vivo Three-Dimensional Deformational Analysis from Two-Dimensional Radiographs. Journal of Vascular and Interventional Radiology, 2017, 28, 142-146.	0.5	9

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19	Statistical analysis of the inter-individual variations of the bone shape, volume fraction and fabric and their correlations in the proximal femur. Bone, 2017, 103, 252-261.	2.9	13
20	MR–FLIP: a new method that combines a functional lumen imaging probe with anatomical information for spatial compliance assessment of the anal sphincter muscles. Colorectal Disease, 2017, 19, 764-771.	1.4	5
21	A software program to measure the three-dimensional length of the spine from radiographic images: Validation and reliability assessment for adolescent idiopathic scoliosis. Computer Methods and Programs in Biomedicine, 2017, 138, 57-64.	4.7	4
22	Biomechanical Role of Bone Anisotropy Estimated on Clinical CT Scans by Image Registration. Annals of Biomedical Engineering, 2016, 44, 2505-2517.	2.5	18
23	Gaussian process prediction of the stress-free configuration of pre-deformed soft tissues: Application to the human cornea. Medical Engineering and Physics, 2016, 38, 339-345.	1.7	4
24	An image-based method to automatically propagate bony landmarks: application to computational spine biomechanics. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 1535-1542.	1.6	5
25	Nitinol Stent Oversizing in Patients Undergoing Popliteal Artery Revascularization: A Finite Element Study. Annals of Biomedical Engineering, 2015, 43, 2868-2880.	2.5	26
26	Patient-specific spinal stiffness in AIS: a preoperative and noninvasive method. European Spine Journal, 2015, 24, 249-255.	2.2	6
27	Image-based vs. mesh-based statistical appearance models of the human femur: Implications for finite element simulations. Medical Engineering and Physics, 2014, 36, 1626-1635.	1.7	24
28	X-ray image calibration and its application to clinical orthopedics. Medical Engineering and Physics, 2014, 36, 968-974.	1.7	23
29	Axial suspension test to assess pre-operative spinal flexibility in patients with adolescent idiopathic scoliosis. European Spine Journal, 2014, 23, 2619-2625.	2.2	12
30	Patient-specific finite-element simulation of the human cornea: A clinical validation study on cataract surgery. Journal of Biomechanics, 2013, 46, 751-758.	2.1	40
31	Stress free configuration of the human eye. Medical Engineering and Physics, 2013, 35, 211-216.	1.7	57
32	Quantification of Popliteal Artery Deformation During Leg Flexion in Subjects With Peripheral Artery Disease: A Pilot Study. Journal of Endovascular Therapy, 2013, 20, 828-835.	1.5	25
33	Intraoperative determination of the load–displacement behavior of scoliotic spinal motion segments: preliminary clinical results. European Spine Journal, 2012, 21, 860-867.	2.2	14
34	A multi-criteria decision support for optimal instrumentation in scoliosis spine surgery. Structural and Multidisciplinary Optimization, 2012, 45, 917-929.	3.5	5
35	Combining 3D tracking and surgical instrumentation to determine the stiffness of spinal motion segments: A validation study. Medical Engineering and Physics, 2011, 33, 340-346.	1.7	5
36	Computational Biomechanics to Simulate the Femoropopliteal Intersection During Knee Flexion: A Preliminary Study. Journal of Endovascular Therapy, 2011, 18, 388-396.	1.5	11

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37	Coronal plane segmental flexibility in thoracic adolescent idiopathic scoliosis assessed by fulcrum-bending radiographs. European Spine Journal, 2010, 19, 732-738.	2.2	29
38	Biomechanical model of human cornea based on stromal microstructure. Journal of Biomechanics, 2010, 43, 836-842.	2.1	82
39	Optimisation of orthopaedic implant design using statistical shape space analysis based on level sets. Medical Image Analysis, 2010, 14, 265-275.	11.6	72
40	Population-specific evaluation of implant bone fitting using PCA shape space and level sets. , 2009, , .		0
41	Risks of loosening of a prosthetic glenoid implanted in retroversion. Journal of Shoulder and Elbow Surgery, 2006, 15, 521-526.	2.6	328
42	Effects of corneal preservation on the mechanical response of porcine corneas measured by nano-indentation. Soft Materials, 0, , 1-10.	1.7	0