Matthias Woiczinski

List of Publications by Year in descending order

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38 papers	539 citations	567281 15 h-index	713466 21 g-index
40 all docs	40 docs citations	40 times ranked	504 citing authors

#	Article	IF	Citations
1	Influence of tibial rotation in total knee arthroplasty on knee kinematics and retropatellar pressure: an in vitro study. Knee Surgery, Sports Traumatology, Arthroscopy, 2016, 24, 2395-2401.	4.2	48
2	Femorotibial kinematics and load patterns after total knee arthroplasty: An in vitro comparison of posterior-stabilized versus medial-stabilized design. Clinical Biomechanics, 2016, 33, 42-48.	1.2	46
3	Patellofemoral contact patterns before and after total knee arthroplasty: an in vitro measurement. BioMedical Engineering OnLine, 2013, 12, 58.	2.7	43
4	Influence of undersized cementless hip stems on primary stability and strain distribution. Archives of Orthopaedic and Trauma Surgery, 2017, 137, 1435-1441.	2.4	28
5	Interlaboratory comparison of femur surface reconstruction from CT data compared to reference optical 3D scan. BioMedical Engineering OnLine, 2018, 17, 29.	2.7	26
6	The effect of trochlea tilting on patellofemoral contact patterns after total knee arthroplasty: an in vitro study. Archives of Orthopaedic and Trauma Surgery, 2014, 134, 867-872.	2.4	24
7	Biomechanical stability of sacroiliac screw osteosynthesis with and without cement augmentation. Injury, 2021, 52, 2707-2711.	1.7	23
8	Increase in the Tibial Slope in Unicondylar Knee Replacement: Analysis of the Effect on the Kinematics and Ligaments in a Weight-Bearing Finite Element Model. BioMed Research International, 2018, 2018, 1-9.	1.9	21
9	Reporting checklist for verification and validation of finite element analysis in orthopedic and trauma biomechanics. Medical Engineering and Physics, 2021, 92, 25-32.	1.7	21
10	Development and validation of a weight-bearing finite element model for total knee replacement. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 1033-1045.	1.6	20
11	Posterior cruciate ligament balancing in total knee arthroplasty: a numerical study with a dynamic force controlled knee model. BioMedical Engineering OnLine, 2014, 13, 91.	2.7	18
12	Can the metaphyseal anchored Metha short stem safely be revised with a standard CLS stem? A biomechanical analysis. International Orthopaedics, 2017, 41, 2471-2477.	1.9	17
13	Mediolateral femoral component position in TKA significantly alters patella shift and femoral roll-back. Knee Surgery, Sports Traumatology, Arthroscopy, 2017, 25, 3561-3568.	4.2	17
14	Comparing effects of perfusion and hydrostatic pressure on gene profiles of human chondrocyte.. Journal of Biotechnology, 2015, 210, 59-65.	3.8	16
15	Influence of mediolateral tibial baseplate position in TKA on knee kinematics and retropatellar pressure. Knee Surgery, Sports Traumatology, Arthroscopy, 2017, 25, 2602-2608.	4.2	16
16	Modified less invasive anterior subcutaneous fixator for unstable Tile-C-pelvic ring fractures: a biomechanical study. BioMedical Engineering OnLine, 2019, 18, 38.	2.7	16
17	Varus malalignment of cementless hip stems provides sufficient primary stability but highly increases distal strain distribution. Clinical Biomechanics, 2018, 58, 14-20.	1.2	15
18	Minimally invasive screw fixation is as stable as anterior plating in acetabular T-Type fractures â€“Âa biomechanical study. Orthopaedics and Traumatology: Surgery and Research, 2018, 104, 1055-1061.	2.0	12

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19	TKA design-integrated trochlea groove rotation reduces patellofemoral pressure. Knee Surgery, Sports Traumatology, Arthroscopy, 2019, 27, 1680-1692.	4.2	11
20	Rapid Prototyping forIn VitroKnee Rig Investigations of Prosthetized Knee Biomechanics: Comparison with Cobalt-Chromium Alloy Implant Material. BioMed Research International, 2015, 2015, 1-9.	1.9	10
21	A lateral retinacular release during total knee arthroplastyÂchanges femorotibial kinematics: an in vitro study. Archives of Orthopaedic and Trauma Surgery, 2018, 138, 401-407.	2.4	10
22	Medial stabilized and posterior stabilized TKA affect patellofemoral kinematics and retropatellar pressure distribution differently. Knee Surgery, Sports Traumatology, Arthroscopy, 2018, 26, 1743-1750.	4.2	10
23	Impact of tibial baseplate malposition on kinematics, contact forces and ligament tensions in TKA: A numerical analysis. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 103, 103564.	3.1	10
24	Biomechanical comparison of minimally invasive treatment options for Type C unstable fractures of the pelvic ring. Orthopaedics and Traumatology: Surgery and Research, 2020, 106, 127-133.	2.0	9
25	Secondary Patellar Resurfacing in TKA: A Combined Analysis of Registry Data and Biomechanical Testing. Journal of Clinical Medicine, 2021, 10, 1227.	2.4	9
26	Tape suture for stabilization of incomplete posterior pelvic ring fracturesâ€"biomechanical analysis of a new minimally invasive treatment for incomplete lateral compression pelvic ring fractures. Journal of Orthopaedic Surgery and Research, 2019, 14, 465.	2.3	8
27	Varus or valgus positioning of the tibial component of a unicompartmental fixed-bearing knee arthroplasty does not increase wear. Knee Surgery, Sports Traumatology, Arthroscopy, 2020, 28, 3016-3021.	4.2	6
28	Biomechanical stability of short versus long proximal femoral nails in osteoporotic subtrochanteric A3 reverse-oblique femoral fractures: a cadaveric study. Archives of Orthopaedic and Trauma Surgery, 2023, 143, 389-397.	2.4	5
29	Calculation of the elastic properties of prosthetic knee components with an iterative finite element-based modal analysis: quantitative comparison of different measuring techniques. Biomedizinische Technik, 2013, 58, 369-76.	0.8	4
30	Impact of femoro-tibial size combinations and TKA design on kinematics. Archives of Orthopaedic and Trauma Surgery, 2022, 142, 1197-1212.	2.4	3
31	The T-pod is as stable as supraacetabular fixation using 1 or 2 Schanz screws in partially unstable pelvic fractures: a biomechanical study. European Journal of Medical Research, 2020, 25, 26.	2.2	2
32	Influence of Treadmill Design on Gait: Does Treadmill Size Affect Muscle Activation Amplitude? A Musculoskeletal Calculation With Individualized Input Parameters of Gait Analysis. Frontiers in Neurology, 2022, 13, 830762.	2.4	2
33	How relevant is lumbar bone mineral density for the stability of symphyseal implants? A biomechanical cadaver study. European Journal of Trauma and Emergency Surgery, 2021, , 1.	1.7	2
34	Ã‰tude biomÃ©canique comparative des ostÃ©osynthÃ¨ses mini invasives pour le traitement des fractures instables de lâ€™anneau pelvien de type Tile C. Revue De Chirurgie Orthopedique Et Traumatologique, 2020, 106, 43-44.	0.0	1
35	Resomer C212Â© in vertebroplasty or kyphoplasty: A feasibility study on artificial bones with biomechanical and thermal evaluation. Technology and Health Care, 2021, 29, 343-350.	1.2	1
36	Optimisation of the drill-in behaviour of the EcoFitÂ® SC threaded cup. Biomedizinische Technik, 2020, 65, 477-484.	0.8	1

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37	Influence of different anteversion alignments of a cementless hip stem on primary stability and strain distribution. Clinical Biomechanics, 2020, 80, 105167.	1.2	1
38	La fixation par vis par voie mini-invasive dans les fractures en T de lâ€™acÃ©tabulum est aussi stable que la plaque antÃ©rieure : Ã©tude biomÃ©canique. Revue De Chirurgie Orthopedique Et Traumatologique, 2018, 104, 714-715.	0.0	0