Bernardo Innocenti

List of Publications by Year
in descending order

101	2,765	201385 27	189595 50
papers	citations	h-index	g-index

105	105	105	2116
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Role of 3D Printing in Medical Applications: A State of the Art. Journal of Healthcare Engineering, 2019, 2019, 1-10.	1.1	350
2	Tibial Tubercleâ€“Posterior Cruciate Ligament Distance. American Journal of Sports Medicine, 2012, 40, 1119-1125.	1.9	213
3	How precise can bony landmarks be determined on a CT scan of the knee?. Knee, 2009, 16, 358-365.	0.8	192
4	Is there a biomechanical explanation for anterior knee pain in patients with patella alta?. Journal of Bone and Joint Surgery: British Volume, 2009, 91-B, 344-350.	3.4	137
5	Cementing the Tibial Component in Total Knee Arthroplasty. Journal of Arthroplasty, 2011, 26, 492-496.	1.5	131
6	The influence of muscle load on tibiofemoral knee kinematics. Journal of Orthopaedic Research, 2009, 28, n/a-n/a.	1.2	89
7	Biomechanical Effects of Different Varus and Valgus Alignments in Medial Unicompartmental Knee Arthroplasty. Journal of Arthroplasty, 2016, 31, 2685-2691.	1.5	82
8	Contact forces in several TKA designs during squatting: A numerical sensitivity analysis. Journal of Biomechanics, 2011, 44, 1573-1581.	0.9	74
9	UKA closely preserves natural knee kinematics in vitro. Knee Surgery, Sports Traumatology, Arthroscopy, 2014, 22, 1902-1910.	2.3	72
10	Can medio-lateral baseplate position and load sharing induce asymptomatic local bone resorption of the proximal tibia? A finite element study. Journal of Orthopaedic Surgery and Research, 2009, 4, 26.	0.9	67
11	Deviations From Optimal Alignment in TKA: Is There a Biomechanical Difference Between Femoral or Tibial Component Alignment?. Journal of Arthroplasty, 2016, 31, 295-301.	1.5	67
12	Load Sharing and Ligament Strains in Balanced, Overstuffed and Understuffed UKA. A Validated Finite Element Analysis. Journal of Arthroplasty, 2014, 29, 1491-1498.	1.5	63
13	Stemmed TKA in a Femur With a Total Hip Arthroplasty. Journal of Arthroplasty, 2013, 28, 1437-1445.	1.5	62
14	Restoration of constitutional alignment in TKA leads to more physiological strains in the collateral ligaments. Knee Surgery, Sports Traumatology, Arthroscopy, 2015, 23, 2159-2169.	2.3	59
15	Cementing the femoral component in total knee arthroplasty: Which technique is the best?. Knee, 2009, 16, 265-268.	0.8	55
16	Post-cam mechanics and tibiofemoral kinematics: a dynamic in vitro analysis of eight posterior-stabilized total knee designs. Knee Surgery, Sports Traumatology, Arthroscopy, 2015, 23, 3343-3353.	2.3	49
17	The Mark Coventry Award Articular: Contact Estimation in TKA Using In Vivo Kinematics and Finite Element Analysis. Clinical Orthopaedics and Related Research, 2010, 468, 19-28.	0.7	46
18	Collateral ligament strains during knee joint laxity evaluation before and after TKA. Clinical Biomechanics, 2013, 28, 777-782.	0.5	45

#	Article	IF	Citations
19	Material Models and Properties in the Finite Element Analysis of Knee Ligaments: A Literature Review. Frontiers in Bioengineering and Biotechnology, 2014, 2, 54.	2.0	44
20	Tibio-femoral kinematics in different total knee arthroplasty designs during a loaded squat: A numerical sensitivity study. Journal of Biomechanics, 2012, 45, 2315-2323.	0.9	41
21	Fixation techniques and stem dimensions in hinged total knee arthroplasty: a finite element study. Archives of Orthopaedic and Trauma Surgery, 2016, 136, 1741-1752.	1.3	40
22	I.S.Mu.L.T. first-time patellar dislocation guidelines. Muscles, Ligaments and Tendons Journal, 2017, 7, 1.	0.1	40
23	Evaluation of topographical variation in ocular surface temperature by functional infrared thermography. Infrared Physics and Technology, 2011, 54, 469-477.	1.3	39
24	The position of the tibia tubercle in 0Â°â€“90Â° flexion: comparing patients with patella dislocation to healthy volunteers. Knee Surgery, Sports Traumatology, Arthroscopy, 2014, 22, 2396-2400.	2.3	37
25	Femoral component loosening in high-flexion total knee replacement. Journal of Bone and Joint Surgery: British Volume, 2011, 93-B, 1355-1361.	3.4	34
26	All-polyethylene tibial components generate higher stress and micromotions than metal-backed tibial components in total knee arthroplasty. Knee Surgery, Sports Traumatology, Arthroscopy, 2016, 24, 2550-2559.	2.3	33
27	Can CT-based patient-matched instrumentation achieve consistent rotational alignment in knee arthroplasty?. Archives of Orthopaedic and Trauma Surgery, 2012, 132, 171-177.	1.3	31
28	Thermography used for analysis and comparison of different cataract surgery procedures based on phacoemulsification. Physiological Measurement, 2006, 27, 371-384.	1.2	26
29	Anteroposterior positioning of the tibial component and its effect on the mechanics of patellofemoral contact. Journal of Bone and Joint Surgery: British Volume, 2010, 92-B, 1466-1470.	3.4	25
30	Development and Validation of a Wear Model to Predict Polyethylene Wear in a Total Knee Arthroplasty: A Finite Element Analysis. Lubricants, 2014, 2, 193-205.	1.2	24
31	In vivo kinematics of knee replacement during daily living activities: Condylar and post-cam contact assessment by three-dimensional fluoroscopy and finite element analyses. Journal of Orthopaedic Research, 2017, 35, 1396-1403.	1.2	24
32	The influence of malrotation and femoral component material on patellofemoral wear during gait. Journal of Bone and Joint Surgery: British Volume, 2011, 93-B, 1348-1354.	3.4	22
33	Post-operative blood loss in total knee arthroplasty: knee flexion versus pharmacological techniques. Knee Surgery, Sports Traumatology, Arthroscopy, 2014, 22, 2756-2762.	2.3	21
34	Asymmetric polyethylene inserts promote favorable kinematics and better clinical outcome compared to symmetric inserts in a mobile bearing total knee arthroplasty. Knee Surgery, Sports Traumatology, Arthroscopy, 2019, 27, 1096-1105.	2.3	21
35	Use of porous custom-made cones for meta-diaphyseal bone defects reconstruction in knee revision surgery: a clinical and biomechanical analysis. Archives of Orthopaedic and Trauma Surgery, 2020, 140, 2041-2055.	1.3	21
36	Robotics in orthopaedic surgery: why, what and how?. Archives of Orthopaedic and Trauma Surgery, 2021, 141, 2035-2042.	1.3	21

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37	Torsional injuries of the lower limb: an analysis of the frictional torque between different types of football turf and the shoe outsole. British Journal of Sports Medicine, 2012, 46, 1078-1083.	3.1	20
38	Differences in the stress distribution in the distal femur between patellofemoral joint replacement and total knee replacement: a finite element study. Journal of Orthopaedic Surgery and Research, 2012, 7, 28.	0.9	20
39	Analysis of Biomechanical Differences Between Condylar Constrained Knee and Rotating Hinged Implants: A Numerical Study. Journal of Arthroplasty, 2020, 35, 278-284.	1.5	20
40	Biomechanical Analysis of Augments in Revision Total Knee Arthroplasty. Journal of Biomechanical Engineering, 2018, 140, .	0.6	19
41	Does joint line elevation after revision knee arthroplasty affect tibio-femoral kinematics, contact pressure or collateral ligament lengths? An in vitro analysis. Archives of Medical Science, 2015, 2, 311-318.	0.4	18
42	Knee kinetics and kinematics: What are the effects of TKA malconfigurations?. Knee Surgery, Sports Traumatology, Arthroscopy, 2016, 24, 2415-2421.	2.3	16
43	How accurate and reproducible are the identification of cruciate and collateral ligament insertions using MRI?. Knee, 2016, 23, 575-581.	0.8	14
44	Biomechanical analysis of femoral stems in hinged total knee arthroplasty in physiological and osteoporotic bone. Computer Methods and Programs in Biomedicine, 2022, 213, 106499.	2.6	14
45	A new spacer-guided, PCL balancing technique for cruciate-retaining total knee replacement. Knee Surgery, Sports Traumatology, Arthroscopy, 2014, 22, 650-659.	2.3	13
46	High congruency MB insert design: stabilizing knee joint even with PCL deficiency. Knee Surgery, Sports Traumatology, Arthroscopy, 2020, 28, 3040-3047.	2.3	11
47	INVESTIGATION ON THE EFFECTS INDUCED BY TKA FEATURES ON TIBIO-FEMORAL MECHANICS PART I: FEMORAL COMPONENT DESIGNS. Journal of Mechanics in Medicine and Biology, 2015, 15, 1540034.	0.3	10
48	Lunate loads following different osteotomies used to treat KienbÃ¶ck's disease: A 3D finite element analysis. Clinical Biomechanics, 2020, 78, 105090.	0.5	10
49	INVESTIGATION ON THE EFFECTS INDUCED BY TKA FEATURES ON TIBIO-FEMORAL MECHANICS PART II: TIBIAL INSERT DESIGNS. Journal of Mechanics in Medicine and Biology, 2015, 15, 1540035.	0.3	9
50	How much bone support does an anatomic glenoid component need?. Journal of Shoulder and Elbow Surgery, 2020, 29, 743-754.	1.2	9
51	Analysing vagus nerve spontaneous activity using finite element modelling. Journal of Neural Engineering, 2021, , .	1.8	9
52	Analysis of Biomechanical Quantities During a Squat Jump: Evaluation of a Performance Index. Journal of Strength and Conditioning Research, 2006, 20, 709.	1.0	9
53	Development and validation of an in-silico virtual testing rig for analyzing total knee arthroplasty performance during passive deep flexion: A feasibility study. Medical Engineering and Physics, 2020, 84, 21-27.	0.8	8
54	Change in knee biomechanics during squat and walking induced by a modification in TKA size. Journal of Orthopaedics, 2020, 22, 463-472.	0.6	8

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55	Sensitivity analysis of the material properties of different soft-tissues: implications for a subjectspecific knee arthroplasty. Muscles, Ligaments and Tendons Journal, 2017, 7, 546.	0.1	8
56	Distal femoral bone mineral density decreases following patellofemoral arthroplasty: 1-year follow-up study of 14 patients. BMC Musculoskeletal Disorders, 2010, 11, 74.	0.8	7
57	An Anthropometric-Based Subject-Specific Finite Element Model of the Human Breast for Predicting Large Deformations. Frontiers in Bioengineering and Biotechnology, 2015, 3, 201.	2.0	7
58	Development and validation of a robust patellar reference coordinate system for biomechanical and clinical studies. Knee, 2020, 27, 81-88.	0.8	7
59	A Case Report: Custom Made Porous Titanium Implants in Revision: A New Option for Complex Issues. The Open Orthopaedics Journal, 2018, 12, 525-535.	0.1	7
60	3D Printed Surgical Guide for Coronary Artery Bypass Graft: Workflow from Computed Tomography to Prototype. Bioengineering, 2022, 9, 179.	1.6	7
61	Biomechanical analysis of the post-cam mechanism in a TKA: comparison between conventional and semi-constrained insert designs. International Biomechanics, 2015, 2, 22-28.	0.9	6
62	Development of digital phantoms based on a finite element model to simulate low-attenuation areas in CT imaging for pulmonary emphysema quantification. International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 1561-1570.	1.7	6
63	Experimental and clinical analysis of the use of asymmetric vs symmetric polyethylene inserts in a mobile bearing total knee arthroplasty. Journal of Orthopaedics, 2021, 23, 25-30.	0.6	6
64	Assessment of patient functional performance in different knee arthroplasty designs during unconstrained squat. Muscles, Ligaments and Tendons Journal, 2017, 7, 514.	0.1	6
65	Biomechanical Analysis of the Use of Stems in Revision Total Knee Arthroplasty. Bioengineering, 2022, 9, 259.	1.6	6
66	The use of robotics devices in knee rehabilitation: a critical review. Muscles, Ligaments and Tendons Journal, 2019, 09, 21.	0.1	5
67	The use of computational models in orthopedic biomechanical research. , 2022, , 681-712.		5
68	Analysis of different geometrical features to achieve close-to-bone stiffness material properties in medical device: A feasibility numerical study. Computer Methods and Programs in Biomedicine, 2022, 221, 106875.	2.6	5
69	A new graphical method to display data sets representing biomechanical knee behaviour. Journal of Experimental Orthopaedics, 2015, 2, 18.	0.8	4
70	Automatic characterization of soft tissues material properties during mechanical tests. Muscles, Ligaments and Tendons Journal, 2017, 7, 530.	0.1	4
71	Tekscan Measurements of Interfacial Contact Area and Stress in Articulating Joints. , 2017, , 267-283.		4
72	High-demand motor tasks are more sensitive to detect persisting alterations in muscle activation following total knee replacement. Gait and Posture, 2016, 50, 151-158.	0.6	3

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73	Assessment of paradoxical anterior translation in a CR total knee prosthesis coupling dynamic RSA and FE techniques. Journal of Experimental Orthopaedics, 2021, 8, 50.	0.8	3
74	Biomechanics of the knee joint. , 2022, , 239-263.		3
75	Effect of an Innovative Biofeedback Insole on Patient Rehabilitation after Total Knee Arthroplasty. Applied Sciences (Switzerland), 2022, 12, 2456.	1.3	3
76	Development and analysis of a finite element model to simulate pulmonary emphysema in CT imaging. , 2015, 2015, 6370-3.		2
77	Bicompartmental, medial and patellofemoral knee replacement might be able to maintain unloaded knee kinematics. Archives of Orthopaedic and Trauma Surgery, 2021, , 1.	1.3	2
78	Functional stability: an experimental knee joint cadaveric study on collateral ligaments tension. Archives of Orthopaedic and Trauma Surgery, 2022, 142, 1213-1220.	1.3	2
79	Experimental and numerical analysis of patello-femoral contact mechanics in TKA. IFMBE Proceedings, 2009, , 1789-1793.	0.2	2
80	Biomechanics: a fundamental tool with a long history (and even longer future!). Muscles, Ligaments and Tendons Journal, 2017, 7, 491.	0.1	2
81	Impact of adaptive gastric electrical stimulation on weight, food intake, and food intake rate in dogs. Artificial Organs, 2022, 46, 1055-1067.	1.0	2
82	IN VITRO KINEMATICS OF HUMAN NATIVE KNEES: A DATABASE OF 60 SPECIMENS. Journal of Biomechanics, 2012, 45, S394.	0.9	1
83	Development of an automatic procedure to mechanically characterize soft tissue materials. , 2016, , .		1
84	Comment on Iodice P, Cesinaro S, Romani GL, Pezzulo G: More gain less pain: balance control learning shifts the activation patterns of leg and neck muscles and increases muscular parsimony. Experimental Brain Research, 2016, 234, 1781-1782.	0.7	1
85	Three-dimensional analysis of the gap space under forearm casts. Chinese Journal of Traumatology - English Edition, 2022, 25, 77-82.	0.7	1
86	Tibiofemoral wear in standard and non-standard squat: implication for total knee arthroplasty. Muscles, Ligaments and Tendons Journal, 2017, 7, 520.	0.1	1
87	An in-vitro study of human knee kinematics: natural vs. replaced joint. IFMBE Proceedings, 2009, , 1867-1870.	0.2	1
88	Thermographic analysis of phacoemulsification based cataract surgery procedures. Quantitative InfraRed Thermography Journal, 2007, 4, 129-140.	2.1	0
89	Paper # 105: Radiological and Finite Element Analysis of Periprosthetic Bone Loss in Patellofemoral Arthroplasty. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2011, 27, e138.	1.3	0
90	CHANGES IN TKA KINEMATICS AND CONTACT FORCES INDUCED BY MAL-CONFIGURATIONS: A NUMERICAL STUDY. Journal of Biomechanics, 2012, 45, S321.	0.9	0

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91	DEVELOPMENT AND VALIDATION OF A FINITE ELEMENT MODEL TO PREDICT PATELLO-FEMORAL WEAR IN TKA. Journal of Biomechanics, 2012, 45, S357.	0.9	0
92	IN VITRO KINEMATICS OF UNICONDYLAR KNEE ARTHROPLASTY. Journal of Biomechanics, 2012, 45, S389.	0.9	0
93	Tibio-Femoral Contact Force During Gait: An Iterative Method Using EMG-Constrained Multi-Body Simulation and Finite Element Analysis. , 2013, , .		0
94	ARE MRIs NECESSARY TO DEVELOP SUBJECT-SPECIFIC CARTILAGE AND MENISCI GEOMETRIES FOR SUBJECT-SPECIFIC KNEE MODELS?. Journal of Mechanics in Medicine and Biology, 2017, 17, 1750049.	0.3	0
95	Development of a wireless system able to track barbell kinematics during bench-press, deadlift and squat movements.. , 2019, , .		0
96	Condylar Contact During Normal Walking and Lateral Trunk Sway Gait: an EMG-Driven Modeling Approach to Estimate Articular Loading. , 2010, , .		0
97	Identification of landmarks on lower limb joint from CT images for kinematics studies: a totally semi-automatic procedure. , 2011, , .		0
98	Experimental orthopedic biomechanics. , 2022, , 557-584.		0
99	Knee prosthesis: biomechanics and design. , 2022, , 377-407.		0
100	Passive ligament stability in natural knee: a cadaveric biomechanical study. , 0, , .		0
101	Can a well balanced soft tissue envelope speed up the postoperative treatment and improve clinical follow-up? A control - pilot study using a dynamic ligament balancing device based on functional stability. , 0, , .		0