

Nathaniel A Bates

List of Publications by Year in descending order

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65
papers

1,329
citations

377584

21
h-index

425179

34
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65
all docs

65
docs citations

65
times ranked

1043
citing authors

#	ARTICLE	IF	CITATIONS
1	Arthrogenic muscle inhibition manifests in thigh musculature motor unit characteristics after anterior cruciate ligament injury. <i>European Journal of Sport Science</i> , 2023, 23, 840-850.	1.4	9
2	Are 6-Month Functional and Isokinetic Testing Measures Risk Factors for Second Anterior Cruciate Ligament Injuries at Long-T Follow-Up?. <i>Journal of Knee Surgery</i> , 2023, 36, 1060-1068.	0.9	3
3	Filtration Selection and Data Consilience: Distinguishing Signal from Artefact with Mechanical Impact Simulator Data. <i>Annals of Biomedical Engineering</i> , 2021, 49, 334-344.	1.3	2
4	Anterior Cruciate Ligament Loading Increases With Pivot-Shift Mechanism During Asymmetrical Drop Vertical Jump in Female Athletes. <i>Orthopaedic Journal of Sports Medicine</i> , 2021, 9, 232596712198909.	0.8	8
5	High school female basketball athletes exhibit decreased knee-specific choice visual-motor reaction time. <i>Scandinavian Journal of Medicine and Science in Sports</i> , 2021, 31, 1699-1707.	1.3	7
6	Mechanics of cadaveric anterior cruciate ligament reconstructions during simulated jump landing tasks: Lessons learned from a pilot investigation. <i>Clinical Biomechanics</i> , 2021, 86, 105372.	0.5	5
7	Hamstrings Contraction Regulates the Magnitude and Timing of the Peak ACL Loading During the Drop Vertical Jump in Female Athletes. <i>Orthopaedic Journal of Sports Medicine</i> , 2021, 9, 232596712110344.	0.8	6
8	Effects of Sex and Age on Quadriceps and Hamstring Strength and Flexibility in High School Basketball Athletes. <i>International Journal of Sports Physical Therapy</i> , 2021, 16, 1302-1312.	0.5	1
9	Diminished neuromuscular system adaptability following anterior cruciate ligament injury: Examination of knee muscle force variability and complexity. <i>Clinical Biomechanics</i> , 2021, 90, 105513.	0.5	9
10	Prospective Frontal Plane Angles Used to Predict ACL Strain and Identify Those at High Risk for Sports-Related ACL Injury. <i>Orthopaedic Journal of Sports Medicine</i> , 2020, 8, 232596712095764.	0.8	22
11	Sex differences in passive and active stiffness of the knee flexor muscles during dynamic perturbation test: principal component analysis. <i>Somatosensory & Motor Research</i> , 2020, 37, 293-299.	0.4	0
12	Linear Discriminant Analysis Successfully Predicts Knee Injury Outcome From Biomechanical Variables. <i>American Journal of Sports Medicine</i> , 2020, 48, 2447-2455.	1.9	7
13	High school male basketball athletes exhibit greater hamstring muscle stiffness than females as assessed with shear wave elastography. <i>Skeletal Radiology</i> , 2020, 49, 1231-1237.	1.2	15
14	In vivo attachment site to attachment site length and strain of the ACL and its bundles during the full gait cycle measure by MRI and high-speed biplanar radiography. (Published Jan. 2, 2020). <i>Journal of Biomechanics</i> , 2020, 109, 109922.	0.9	0
15	Analysis of Internal Knee Forces Allows for the Prediction of Rupture Events in a Clinically Relevant Model of Anterior Cruciate Ligament Injuries. <i>Orthopaedic Journal of Sports Medicine</i> , 2020, 8, 232596711989375.	0.8	17
16	Timing of Strain Response of the ACL and MCL Relative to Impulse Delivery During Simulated Landings Leading up to ACL Failure. <i>Journal of Applied Biomechanics</i> , 2020, 36, 148-155.	0.3	21
17	Thigh musculature stiffness during active muscle contraction after anterior cruciate ligament injury. <i>BMC Musculoskeletal Disorders</i> , 2020, 21, 320.	0.8	6
18	ANALYSIS OF TIMING OF SECONDARY ACL INJURY IN PROFESSIONAL ATHLETES DOES NOT SUPPORT GAME TIMING OR SEASON TIMING AS A CONTRIBUTOR TO INJURY RISK. <i>International Journal of Sports Physical Therapy</i> , 2020, 15, 254-262.	0.5	3

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19	INVESTIGATION OF PRIMARY AND SECOND ANTERIOR CRUCIATE LIGAMENT TEARS USING A GEOGRAPHIC DATABASE. <i>International Journal of Sports Physical Therapy</i> , 2020, 15, 593-602.	0.5	1
20	Influence of relative injury risk profiles on anterior cruciate ligament and medial collateral ligament strain during simulated landing leading to a noncontact injury event. <i>Clinical Biomechanics</i> , 2019, 69, 44-51.	0.5	10
21	Frontal Plane Loading Characteristics of Medial Collateral Ligament Strain Concurrent With Anterior Cruciate Ligament Failure. <i>American Journal of Sports Medicine</i> , 2019, 47, 2143-2150.	1.9	26
22	Multiplanar Loading of the Knee and Its Influence on Anterior Cruciate Ligament and Medial Collateral Ligament Strain During Simulated Landings and Noncontact Tears. <i>American Journal of Sports Medicine</i> , 2019, 47, 1844-1853.	1.9	59
23	Paradoxical relationship in sensorimotor system: Knee joint position sense absolute error and joint stiffness measures. <i>Clinical Biomechanics</i> , 2019, 67, 34-37.	0.5	5
24	Knee Abduction and Internal Rotation Moments Increase ACL Force During Landing Through the Posterior Slope of the Tibia. <i>Journal of Orthopaedic Research</i> , 2019, 37, 1730-1742.	1.2	47
25	Variation in ACL and MCL Strain Before Initial Contact Is Dependent on Injury Risk Level During Simulated Landings. <i>Orthopaedic Journal of Sports Medicine</i> , 2019, 7, 232596711988490.	0.8	9
26	External loads associated with anterior cruciate ligament injuries increase the correlation between tibial slope and ligament strain during in vitro simulations of in vivo landings. <i>Clinical Biomechanics</i> , 2019, 61, 84-94.	0.5	21
27	Effects of localized vibration on knee joint position sense in individuals with anterior cruciate ligament reconstruction. <i>Clinical Biomechanics</i> , 2018, 55, 40-44.	0.5	13
28	The influence of internal and external tibial rotation offsets on knee joint and ligament biomechanics during simulated athletic tasks. <i>Clinical Biomechanics</i> , 2018, 52, 109-116.	0.5	9
29	Sex-Based Differences of Medial Collateral Ligament and Anterior Cruciate Ligament Strains With Cadaveric Impact Simulations. <i>Orthopaedic Journal of Sports Medicine</i> , 2018, 6, 232596711876521.	0.8	21
30	Sex-Based Differences in Knee Kinetics With Anterior Cruciate Ligament Strain on Cadaveric Impact Simulations. <i>Orthopaedic Journal of Sports Medicine</i> , 2018, 6, 232596711876103.	0.8	27
31	Effects of Population Variability on Knee Loading During Simulated Human Gait. <i>Annals of Biomedical Engineering</i> , 2018, 46, 284-297.	1.3	3
32	Relative dearth of "sex differences"™ research in sports medicine. <i>Journal of Science and Medicine in Sport</i> , 2018, 21, 440-441.	0.6	15
33	Modeling of ACL Injury Mechanism. <i>Medicine and Science in Sports and Exercise</i> , 2018, 50, 106.	0.2	0
34	Effects of Localized Vibration on Knee Joint Position Sense in Individuals with ACL-Reconstruction. <i>Medicine and Science in Sports and Exercise</i> , 2018, 50, 254.	0.2	0
35	Validation of Noncontact Anterior Cruciate Ligament Tears Produced by a Mechanical Impact Simulator Against the Clinical Presentation of Injury. <i>American Journal of Sports Medicine</i> , 2018, 46, 2113-2121.	1.9	37
36	Robotic simulation of identical athletic-task kinematics on cadaveric limbs exhibits a lack of differences in knee mechanics between contralateral pairs. <i>Journal of Biomechanics</i> , 2017, 53, 36-44.	0.9	8

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37	Effect of sagittal plane mechanics on ACL strain during jump landing. <i>Journal of Orthopaedic Research</i> , 2017, 35, 1171-1172.	1.2	6
38	Preventive Biomechanics: A Paradigm Shift With a Translational Approach to Injury Prevention. <i>American Journal of Sports Medicine</i> , 2017, 45, 2654-2664.	1.9	67
39	Incidence of Second Anterior Cruciate Ligament Tears (1990-2000) and Associated Factors in a Specific Geographic Locale. <i>American Journal of Sports Medicine</i> , 2017, 45, 1567-1573.	1.9	43
40	Knee Abduction Affects Greater Magnitude of Change in ACL and MCL Strains Than Matched Internal Tibial Rotation In Vitro. <i>Clinical Orthopaedics and Related Research</i> , 2017, 475, 2385-2396.	0.7	45
41	Novel mechanical impact simulator designed to generate clinically relevant anterior cruciate ligament ruptures. <i>Clinical Biomechanics</i> , 2017, 44, 36-44.	0.5	37
42	Incidence of Second Anterior Cruciate Ligament Tears and Identification of Associated Risk Factors From 2001 to 2010 Using a Geographic Database. <i>Orthopaedic Journal of Sports Medicine</i> , 2017, 5, 232596711772419.	0.8	91
43	How Anterior Cruciate Ligament Injury was averted during Knee Collapse in a NBA Point Guard. , 2017, 1, 008-12.		1
44	Posterior Tibial Slope Angle Correlates With Peak Sagittal and Frontal Plane Knee Joint Loading During Robotic Simulations of Athletic Tasks. <i>American Journal of Sports Medicine</i> , 2016, 44, 1762-1770.	1.9	20
45	Motion Analysis and the Anterior Cruciate Ligament: Classification of Injury Risk. <i>Journal of Knee Surgery</i> , 2016, 29, 117-125.	0.9	25
46	Characteristics of inpatient anterior cruciate ligament reconstructions and concomitant injuries. <i>Knee Surgery, Sports Traumatology, Arthroscopy</i> , 2016, 24, 2778-2786.	2.3	36
47	Sex-based differences in knee ligament biomechanics during robotically simulated athletic tasks. <i>Journal of Biomechanics</i> , 2016, 49, 1429-1436.	0.9	18
48	Impacts of Robotic Compliance and Bone Bending on Simulated Knee Kinematics. <i>American Journal of Biomedical Engineering</i> , 2016, 6, 12-18.	0.9	1
49	Reliability of 3-Dimensional Measures of Single-Leg Drop Landing Across 3 Institutions: Implications for Multicenter Research for Secondary ACL-Injury Prevention. <i>Journal of Sport Rehabilitation</i> , 2015, 24, 198-209.	0.4	28
50	Reliability of 3-Dimensional Measures of Single-Leg Cross Drop Landing Across 3 Different Institutions. <i>Orthopaedic Journal of Sports Medicine</i> , 2015, 3, 232596711561790.	0.8	9
51	Relative Strain in the Anterior Cruciate Ligament and Medial Collateral Ligament During Simulated Jump Landing and Sidestep Cutting Tasks. <i>American Journal of Sports Medicine</i> , 2015, 43, 2259-2269.	1.9	43
52	A Novel Methodology for the Simulation of Athletic Tasks on Cadaveric Knee Joints with Respect to In Vivo Kinematics. <i>Annals of Biomedical Engineering</i> , 2015, 43, 2456-2466.	1.3	24
53	Prediction of Kinematic and Kinetic Performance in a Drop Vertical Jump with Individual Anthropometric Factors in Adolescent Female Athletes: Implications for Cadaveric Investigations. <i>Annals of Biomedical Engineering</i> , 2015, 43, 929-936.	1.3	4
54	Anterior cruciate ligament biomechanics during robotic and mechanical simulations of physiologic and clinical motion tasks: A systematic review and meta-analysis. <i>Clinical Biomechanics</i> , 2015, 30, 1-13.	0.5	62

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55	Dynamic Balance in Children: Performance Comparison Between Two Testing Devices. Athletic Training & Sports Health Care, 2015, 7, 160-164.	0.4	9
56	Reliability of Three-Dimensional Biomechanics Across Three Different Institutions. Medicine and Science in Sports and Exercise, 2014, 46, 961.	0.2	0
57	Feasibility and reliability of dynamic postural control measures in children in first through fifth grades. International Journal of Sports Physical Therapy, 2014, 9, 140-8.	0.5	35
58	Consistency of clinical biomechanical measures between three different institutions: implications for multi-center biomechanical and epidemiological research. International Journal of Sports Physical Therapy, 2014, 9, 289-301.	0.5	7
59	The validity of 2-dimensional measurement of trunk angle during dynamic tasks. International Journal of Sports Physical Therapy, 2014, 9, 420-7.	0.5	13
60	Reduced hip strength is associated with increased hip motion during running in young adult and adolescent male long-distance runners. International Journal of Sports Physical Therapy, 2014, 9, 456-67.	0.5	19
61	Timing differences in the generation of ground reaction forces between the initial and secondary landing phases of the drop vertical jump. Clinical Biomechanics, 2013, 28, 796-799.	0.5	41
62	Kinetic and kinematic differences between first and second landings of a drop vertical jump task: Implications for injury risk assessments. Clinical Biomechanics, 2013, 28, 459-466.	0.5	74
63	Impact differences in ground reaction force and center of mass between the first and second landing phases of a drop vertical jump and their implications for injury risk assessment. Journal of Biomechanics, 2013, 46, 1237-1241.	0.9	110
64	Correlating Knee Characteristics and Dynamic Load to Customize Gait Simulation In Vitro. , 2013, , .		0
65	Arthrometric curve-shape variables to assess anterior cruciate ligament deficiency. Clinical Biomechanics, 2012, 27, 830-836.	0.5	9