

Andrew C Laing

List of Publications by Year in descending order

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Version: 2024-02-01

57
papers

890
citations

471509

17
h-index

501196

28
g-index

57
all docs

57
docs citations

57
times ranked

672
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | The influence of ankle muscle activation on postural sway during quiet stance. <i>Gait and Posture</i> , 2014, 39, 1115-1121. | 1.4 | 80 |
| 2 | Low stiffness floors can attenuate fall-related femoral impact forces by up to 50% without substantially impairing balance in older women. <i>Accident Analysis and Prevention</i> , 2009, 41, 642-650. | 5.7 | 64 |
| 3 | The Force Attenuation Provided by Hip Protectors Depends on Impact Velocity, Pelvic Size, and Soft Tissue Stiffness. <i>Journal of Biomechanical Engineering</i> , 2008, 130, 061005. | 1.3 | 59 |
| 4 | Laboratory Evaluation of the gForce Tracker, a Head Impact Kinematic Measuring Device for Use in Football Helmets. <i>Annals of Biomedical Engineering</i> , 2016, 44, 1246-1256. | 2.5 | 57 |
| 5 | The effects of pad geometry and material properties on the biomechanical effectiveness of 26 commercially available hip protectors. <i>Journal of Biomechanics</i> , 2011, 44, 2627-2635. | 2.1 | 50 |
| 6 | Effect of compliant flooring on impact force during falls on the hip. <i>Journal of Orthopaedic Research</i> , 2006, 24, 1405-1411. | 2.3 | 49 |
| 7 | Characterizing the effective stiffness of the pelvis during sideways falls on the hip. <i>Journal of Biomechanics</i> , 2010, 43, 1898-1904. | 2.1 | 43 |
| 8 | Compliant flooring to prevent fall-related injuries in older adults: A scoping review of biomechanical efficacy, clinical effectiveness, cost-effectiveness, and workplace safety. <i>PLoS ONE</i> , 2017, 12, e0171652. | 2.5 | 40 |
| 9 | Falls and Parkinson's Disease: Evidence from Video Recordings of Actual Fall Events. <i>Journal of the American Geriatrics Society</i> , 2016, 64, 96-101. | 2.6 | 34 |
| 10 | The influence of headform orientation and flooring systems on impact dynamics during simulated fall-related head impacts. <i>Medical Engineering and Physics</i> , 2012, 34, 1071-1078. | 1.7 | 33 |
| 11 | Energy absorption during impact on the proximal femur is affected by body mass index and flooring surface. <i>Journal of Biomechanics</i> , 2014, 47, 2391-2397. | 2.1 | 33 |
| 12 | The Flooring for Injury Prevention (FLIP) Study of compliant flooring for the prevention of fall-related injuries in long-term care: A randomized trial. <i>PLoS Medicine</i> , 2019, 16, e1002843. | 8.4 | 33 |
| 13 | The influence of novel compliant floors on balance control in elderly women – A biomechanical study. <i>Accident Analysis and Prevention</i> , 2011, 43, 1480-1487. | 5.7 | 28 |
| 14 | The body configuration at step contact critically determines the successfulness of balance recovery in response to large backward perturbations. <i>Gait and Posture</i> , 2012, 35, 462-466. | 1.4 | 28 |
| 15 | The effects of body mass index and sex on impact force and effective pelvic stiffness during simulated lateral falls. <i>Clinical Biomechanics</i> , 2013, 28, 1026-1033. | 1.2 | 22 |
| 16 | Novel safety floors do not influence early compensatory balance reactions in older adults. <i>Gait and Posture</i> , 2014, 40, 160-165. | 1.4 | 20 |
| 17 | Characterization of the protective capacity of flooring systems using force-deflection profiling. <i>Medical Engineering and Physics</i> , 2013, 35, 108-115. | 1.7 | 19 |
| 18 | The Influence of Body Mass Index and Gender on the Impact Attenuation Properties of Flooring Systems. <i>Journal of Applied Biomechanics</i> , 2013, 29, 731-739. | 0.8 | 18 |

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|----|---|-----|-----------|
| 19 | Quantification of the Trade-Off Between Force Attenuation and Balance Impairment in the Design of Compliant Safety Floors. <i>Journal of Applied Biomechanics</i> , 2013, 29, 563-572. | 0.8 | 17 |
| 20 | Effects of Advanced Age on the Morphometry and Degenerative State of the Cervical Spine in a Rat Model. <i>Anatomical Record</i> , 2011, 294, 1326-1336. | 1.4 | 12 |
| 21 | Factors that influence soft tissue thickness over the greater trochanter: Application to understanding hip fractures. <i>Clinical Anatomy</i> , 2015, 28, 253-261. | 2.7 | 12 |
| 22 | Older females in the workforce – the effects of age on psychophysical estimates of maximum acceptable lifting loads. <i>Ergonomics</i> , 2017, 60, 1708-1717. | 2.1 | 11 |
| 23 | Study protocol for the Flooring for Injury Prevention (FLIP) Study: a randomised controlled trial in long-term care. <i>Injury Prevention</i> , 2016, 22, 453-460. | 2.4 | 10 |
| 24 | The influence of muscle activation on impact dynamics during lateral falls on the hip. <i>Journal of Biomechanics</i> , 2018, 66, 111-118. | 2.1 | 9 |
| 25 | The Influence of Body Mass Index, Sex, & Muscle Activation on Pressure Distribution During Lateral Falls on the Hip. <i>Annals of Biomedical Engineering</i> , 2017, 45, 2775-2783. | 2.5 | 8 |
| 26 | Measurement of peak impact loads differ between accelerometers – Effects of system operating range and sampling rate. <i>Journal of Biomechanics</i> , 2017, 58, 222-226. | 2.1 | 8 |
| 27 | The Effects of Age on the Morphometry of the Cervical Spinal Cord and Spinal Column in Adult Rats: An MRI-Based Study. <i>Anatomical Record</i> , 2014, 297, 1885-1895. | 1.4 | 7 |
| 28 | The SAFEST review: a mixed methods systematic review of shock-absorbing flooring for fall-related injury prevention. <i>BMC Geriatrics</i> , 2022, 22, 32. | 2.7 | 7 |
| 29 | Stooping, crouching, and standing – Characterizing balance control strategies across postures. <i>Journal of Biomechanics</i> , 2017, 53, 90-96. | 2.1 | 6 |
| 30 | Moving beyond quiet stance: Applicability of the inverted pendulum model to stooping and crouching postures. <i>Journal of Biomechanics</i> , 2014, 47, 3574-3579. | 2.1 | 5 |
| 31 | Protocol for the SAFEST review: the Shock-Absorbing Flooring Effectiveness Systematic review including older adults and staff in hospitals and care homes. <i>BMJ Open</i> , 2020, 10, e032315. | 1.9 | 5 |
| 32 | Predicting population level hip fracture risk: a novel hierarchical model incorporating probabilistic approaches and factor of risk principles. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2020, 23, 1201-1214. | 1.6 | 5 |
| 33 | Shock-absorbing flooring for fall-related injury prevention in older adults and staff in hospitals and care homes: the SAFEST systematic review. <i>Health Technology Assessment</i> , 2022, 26, 1-196. | 2.8 | 5 |
| 34 | Age-related differences in movement strategies and postural control during stooping and crouching tasks. <i>Human Movement Science</i> , 2015, 44, 246-257. | 1.4 | 4 |
| 35 | The influence of increased passive stiffness of the trunk and hips on balance control during reactive stepping. <i>Gait and Posture</i> , 2019, 72, 51-56. | 1.4 | 4 |
| 36 | Strain of the facet joint capsule during rotation and translation range-of-motion tests: an in vitro porcine model as a human surrogate. <i>Spine Journal</i> , 2020, 20, 475-487. | 1.3 | 4 |

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|----|---|-----|-----------|
| 37 | Application of Principal Component Analysis to Forward Reactive Stepping: Whole-body Movement Strategy Differs as a Function of Age and Sex. <i>Gait and Posture</i> , 2021, 89, 38-44. | 1.4 | 4 |
| 38 | The Influence of Fall Direction and Hip Protector on Fracture Risk: FE Model Predictions Driven by Experimental Data. <i>Annals of Biomedical Engineering</i> , 2022, 50, 278-290. | 2.5 | 4 |
| 39 | The Effects of Body Position on Trochanteric Soft Tissue Thickness—Implications for Predictions of Impact Force and Hip Fracture Risk During Lateral Falls. <i>Journal of Applied Biomechanics</i> , 2021, 37, 556-564. | 0.8 | 4 |
| 40 | Intervening on the Determinants of Mechanical Exposures: The Effects of a Redesigned Production System on Physical Demands and Worker Perceptions. <i>IIE Transactions on Occupational Ergonomics and Human Factors</i> , 2013, 1, 128-139. | 0.4 | 3 |
| 41 | The influence of repeated chin bar impacts on the protective properties of full-face mountain biking helmets. <i>Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology</i> , 2016, 230, 213-224. | 0.7 | 3 |
| 42 | Pelvis and femur geometry: Relationships with impact characteristics during sideways falls on the hip. <i>Journal of Biomechanics</i> , 2018, 80, 72-78. | 2.1 | 3 |
| 43 | Manual patient transfers: factors that influence decisions and kinematic strategies employed by nursing aides. <i>Ergonomics</i> , 2019, 62, 565-574. | 2.1 | 3 |
| 44 | Analysis of invoked slips while wearing flip-flops in wet and dry conditions: Does alternative footwear alter slip kinematics?. <i>Applied Ergonomics</i> , 2021, 92, 103318. | 3.1 | 3 |
| 45 | Anti-fatigue mats can reduce low back discomfort in transient pain developers. <i>Applied Ergonomics</i> , 2022, 100, 103661. | 3.1 | 3 |
| 46 | Standing Versus Stepping—Exploring the Relationships Between Postural Steadiness and Dynamic Reactive Balance Control. <i>Journal of Applied Biomechanics</i> , 2018, 34, 488-495. | 0.8 | 2 |
| 47 | Body configuration as a predictor of centre of mass displacement in a forward reactive step. <i>Human Movement Science</i> , 2019, 66, 292-300. | 1.4 | 2 |
| 48 | Anatomically Aligned Loading During Falls: Influence of Fall Protocol, Sex and Trochanteric Soft Tissue Thickness. <i>Annals of Biomedical Engineering</i> , 2021, , 1. | 2.5 | 2 |
| 49 | Evaluation of amplitude- and frequency-based techniques for attenuating inertia-based movement artifact during surface translation perturbations. <i>Gait and Posture</i> , 2021, 86, 299-302. | 1.4 | 1 |
| 50 | Exploring the influence of impact severity and posture on vertebral joint mechanics in an in-vitro porcine model. <i>Journal of Biomechanics</i> , 2021, 122, 110479. | 2.1 | 1 |
| 51 | Influence of intermittent pneumatic compression on foot sensation and balance control in chemotherapy-induced peripheral neuropathy patients. <i>Clinical Biomechanics</i> , 2021, 90, 105512. | 1.2 | 1 |
| 52 | Impact attenuation provided by older adult protective headwear products during simulated fall-related head impacts. <i>Journal of Rehabilitation and Assistive Technologies Engineering</i> , 2021, 8, 205566832110503. | 0.9 | 1 |
| 53 | Strain Response in the Facet Joint Capsule During Physiological Joint Rotation and Translation Following a Simulated Impact Exposure: An In Vitro Porcine Model. <i>Journal of Biomechanical Engineering</i> , 2022, 144, . | 1.3 | 1 |
| 54 | Footfall Deflection of Antifatigue Flooring During Simulated Human Stance. <i>Ergonomics in Design</i> , 2020, , 106480462097573. | 0.7 | 0 |

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|----|---|-----|-----------|
| 55 | Monocular 3D Sway Tracking for Assessing Postural Instability in Cerebral Hypoperfusion During Quiet Standing. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 720-729. | 4.9 | 0 |
| 56 | Factors that influence the distribution of impact force relative to the proximal femur during lateral falls. Journal of Biomechanics, 2021, 127, 110679. | 2.1 | 0 |
| 57 | Femur geometry and body composition influence femoral neck stresses: A combined fall simulation and beam modelling approach. Journal of Biomechanics, 2022, 141, 111192. | 2.1 | 0 |