# Alan M Wilson

List of Publications by Year
in descending order



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|---|---|---|---|
| 75 papers | 4,320 citations | 101543 36 h-index | 110387 64 g-index |
| 78 all docs | 78 docs citations | 78 times ranked | 4040 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Locomotion dynamics of hunting in wild cheetahs. Nature, 2013, 498, 185-189. | 27.8 | 344 |
| 2 | Upwash exploitation and downwash avoidance by flap phasing in ibis formation flight. Nature, 2014, 505, 399-402. | 27.8 | 272 |
| 3 | Horses damp the spring in their step. Nature, 2001, 414, 895-899. | 27.8 | 216 |
| 4 | The effect of gait and digital flexor muscle activation on limb compliance in the forelimb of the horseEquus caballus. Journal of Experimental Biology, 2003, 206, 1325-1336. | 1.7 | 213 |
| 5 | A method for deriving displacement data during cyclical movement using an inertial sensor. Journal of Experimental Biology, 2005, 208, 2503-2514. | 1.7 | 157 |
| 6 | Group hunting within the Carnivora: physiological, cognitive and environmental influences on strategy and cooperation. Behavioral Ecology and Sociobiology, 2013, 67, 1-17. | 1.4 | 153 |
| 7 | The Pathobiology and Repair of Tendon and Ligament Injury. Veterinary Clinics of North America Equine Practice, 1994, 10, 323-349. | 0.7 | 147 |
| 8 | Solving the shepherding problem: heuristics for herding autonomous, interacting agents. Journal of the Royal Society Interface, 2014, 11, 20140719. | 3.4 | 140 |
| 9 | Biomechanics of predatorâ€“prey arms race in lion, zebra, cheetah and impala. Nature, 2018, 554, 183-188. | 27.8 | 130 |
| 10 | High speed galloping in the cheetah (Acinonyx jubatus) and the racing greyhound (Canis) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 2425-2434. | 1.7 | 125 |
| 11 | Flying in a flock comes at a cost in pigeons. Nature, 2011, 474, 494-497. | 27.8 | 118 |
| 12 | Selfish-herd behaviour of sheep under threat. Current Biology, 2012, 22, R561-R562. | 3.9 | 114 |
| 13 | Gait characterisation and classification in horses. Journal of Experimental Biology, 2007, 210, 187-197. | 1.7 | 109 |
| 14 | A catapult action for rapid limb protraction. Nature, 2003, 421, 35-36. | 27.8 | 104 |
| 15 | Matching times of leading and following suggest cooperation through direct reciprocity during V-formation flight in ibis. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2115-2120. | 7.1 | 104 |
| 16 | No force limit on greyhound sprint speed. Nature, 2005, 438, 753-754. | 27.8 | 103 |
| 17 | Accuracy of WAAS-enabled GPS for the determination of position and speed over ground. Journal of Biomechanics, 2005, 38, 1717-1722. | 2.1 | 92 |
| 18 | Does wildlife resource selection accurately inform corridor conservation?. Journal of Applied Ecology, 2017, 54, 412-422. | 4.0 | 88 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Functional anatomy of the cheetah (Acinonyx jubatus) hindlimb. Journal of Anatomy, 2011, 218, 363-374. | 1.5 | 85 |
| 20 | Lessons from integrating behaviour and resource selection: activityâ€specific responses of <scp>A</scp>frican wild dogs to roads. Animal Conservation, 2016, 19, 247-255. | 2.9 | 80 |
| 21 | Centre of mass movement and mechanical energy fluctuation during gallop locomotion in the Thoroughbred racehorse. Journal of Experimental Biology, 2006, 209, 3742-3757. | 1.7 | 74 |
| 22 | Modern Riding Style Improves Horse Racing Times. Science, 2009, 325, 289-289. | 12.6 | 70 |
| 23 | Functional anatomy of the cheetah (Acinonyx jubatus) forelimb. Journal of Anatomy, 2011, 218, 375-385. | 1.5 | 67 |
| 24 | Intermittent applied mechanical loading induces subchondral bone thickening that may be intensified locally by contiguous articular cartilage lesions. Osteoarthritis and Cartilage, 2015, 23, 940-948. | 1.3 | 66 |
| 25 | Measurement of stride parameters using a wearable GPS and inertial measurement unit. Journal of Biomechanics, 2008, 41, 1398-1406. | 2.1 | 63 |
| 26 | The anatomical arrangement of muscle and tendon enhances limb versatility and locomotor performance. Philosophical Transactions of the Royal Society B: Biological Sciences, 2011, 366, 1540-1553. | 4.0 | 59 |
| 27 | Energy cost and return for hunting in African wild dogs and cheetahs. Nature Communications, 2016, 7, 11034. | 12.8 | 59 |
| 28 | Pitch then power: limitations to acceleration in quadrupeds. Biology Letters, 2009, 5, 610-613. | 2.3 | 54 |
| 29 | Determining association networks in social animals: choosing spatialâ€“temporal criteria and sampling rates. Behavioral Ecology and Sociobiology, 2011, 65, 1659-1668. | 1.4 | 54 |
| 30 | Accounting for elite indoor 200â€Šm sprint results. Biology Letters, 2006, 2, 47-50. | 2.3 | 53 |
| 31 | Terrestrial mammalian wildlife responses to Unmanned Aerial Systems approaches. Scientific Reports, 2019, 9, 2142. | 3.3 | 49 |
| 32 | Physical activity: does long-term, high-intensity exercise in horses result in tendon degeneration?. Journal of Applied Physiology, 2008, 105, 1927-1933. | 2.5 | 47 |
| 33 | Grip and limb force limits to turning performance in competition horses. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 2105-2111. | 2.6 | 46 |
| 34 | Mechanics of cutting maneuvers by ostriches (Struthio camelus). Journal of Experimental Biology, 2007, 210, 1378-1390. | 1.7 | 41 |
| 35 | Mechanics of dog walking compared with a passive, stiff-limbed, 4-bar linkage model, and their collisional implications. Journal of Experimental Biology, 2007, 210, 533-540. | 1.7 | 38 |
| 36 | A hidden Markov model-based stride segmentation technique applied to equine inertial sensor trunk movement data. Journal of Biomechanics, 2008, 41, 216-220. | 2.1 | 38 |

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|---|---|---|---|
| 37 | Additive opportunistic capture explains group hunting benefits in African wild dogs. Nature Communications, 2016, 7, 11033. | 12.8 | 34 |
| 38 | Ontogenetic scaling of locomotor kinetics and kinematics of the ostrich (Struthio camelus). Journal of Experimental Biology, 2010, 213, 1347-1355. | 1.7 | 33 |
| 39 | The Determination of Muscle Volume with A Freehand 3D Ultrasonography System. Ultrasound in Medicine and Biology, 2007, 33, 402-407. | 1.5 | 32 |
| 40 | The locomotor kinematics and ground reaction forces of walking giraffes. Journal of Experimental Biology, 2019, 222, . | 1.7 | 32 |
| 41 | Speed, pacing strategy and aerodynamic drafting in Thoroughbred horse racing. Biology Letters, 2012, 8, 678-681. | 2.3 | 30 |
| 42 | RemarkableÂmuscles, remarkable locomotion in desert-dwelling wildebeest. Nature, 2018, 563, 393-396. | 27.8 | 28 |
| 43 | Improving the accuracy of estimates of animal path and travel distance using GPS driftâ€corrected dead reckoning. Ecology and Evolution, 2016, 6, 6210-6222. | 1.9 | 24 |
| 44 | Circadian variation in biochemical markers of bone cell activity and insulin-like growth factor-I in two-year-old horses1. Journal of Animal Science, 2003, 81, 2804-2810. | 0.5 | 22 |
| 45 | Prediction of kinetics and kinematics of running animals using an analytical approximation to the planar spring-mass system. Journal of Experimental Biology, 2005, 208, 4377-4389. | 1.7 | 22 |
| 46 | Walkâ€“run classification of symmetrical gaits in the horse: a multidimensional approach. Journal of the Royal Society Interface, 2009, 6, 335-342. | 3.4 | 21 |
| 47 | Dynamics of direct inter-pack encounters in endangered African wild dogs. Behavioral Ecology and Sociobiology, 2017, 71, 1. | 1.4 | 20 |
| 48 | The consistency of maximum running speed measurements in humans using a feedback-controlled treadmill, and a comparison with maximum attainable speed during overground locomotion. Journal of Biomechanics, 2009, 42, 2569-2574. | 2.1 | 18 |
| 49 | Power output of skinned skeletal muscle fibres from the cheetah (Acinonyx jubatus). Journal of Experimental Biology, 2013, 216, 2974-82. | 1.7 | 18 |
| 50 | Mechanical and energetic scaling relationships of running gait through ontogeny in the ostrich (Struthio camelus). Journal of Experimental Biology, 2012, 216, 841-9. | 1.7 | 16 |
| 51 | Ground reaction forces of overground galloping in ridden Thoroughbred racehorses. Journal of Experimental Biology, 2019, 222, . | 1.7 | 16 |
| 52 | Skinned fibres produce the same power and force as intact fibre bundles from muscle of wild rabbits. Journal of Experimental Biology, 2015, 218, 2856-63. | 1.7 | 15 |
| 53 | Scent-marking strategies of a solitary carnivore: boundary and road scent marking in the leopard. Animal Behaviour, 2020, 161, 115-126. | 1.9 | 15 |
| 54 | Evaluation of in vitro performance of suction drains. American Journal of Veterinary Research, 2009, 70, 283-289. | 0.6 | 12 |

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|---|---|---|---|
| 55 | A wearable and flexible Bracelet computer for on-body sensing. , 2011, , . | | 12 |
| 56 | Data-loggers carried on a harness do not adversely affect sheep locomotion. Research in Veterinary Science, 2012, 93, 549-552. | 1.9 | 12 |
| 57 | An exploratory clustering approach for extracting stride parameters from tracking collars on free ranging wild animals. Journal of Experimental Biology, 2017, 220, 341-346. | 1.7 | 12 |
| 58 | Artificial mass loading disrupts stable social order in pigeon dominance hierarchies. Biology Letters, 2020, 16, 20200468. | 2.3 | 12 |
| 59 | A comparison of three-dimensional ultrasound, two-dimensional ultrasound and dissections for determination of lesion volume in tendons. Ultrasound in Medicine and Biology, 2006, 32, 797-804. | 1.5 | 11 |
| 60 | Intensity of activation and timing of deactivation modulate elastic energy storage and release in a pennate muscle and account for gait-specific initiation of limb protraction in the horse. Journal of Experimental Biology, 2009, 212, 2454-2463. | 1.7 | 11 |
| 61 | Impact during equine locomotion: techniques for measurement and analysis. Equine Veterinary Journal, 1997, 29, 9-12. | 1.7 | 11 |
| 62 | The Biomechanics of the Equine Limb and Its Effect on Lameness. , 2011, , 270-281. | | 9 |
| 63 | Movement patterns and athletic performance of leopards in the Okavango Delta. Proceedings of the Royal Society B: Biological Sciences, 2018, 285, 20172622. | 2.6 | 9 |
| 64 | External mechanical work in the galloping racehorse. Biology Letters, 2019, 15, 20180709. | 2.3 | 8 |
| 65 | Possible causes of divergent population trends in sympatric African herbivores. PLoS ONE, 2019, 14, e0213720. | 2.5 | 7 |
| 66 | Determining position, velocity and acceleration of free-ranging animals with a low-cost unmanned aerial system. Journal of Experimental Biology, 2016, 219, 2687-92. | 1.7 | 6 |
| 67 | Energy turnover in mammalian skeletal muscle in contractions mimicking locomotion: effects of stimulus pattern on work, impulse and energetic cost and efficiency. Journal of Experimental Biology, 2019, 222, . | 1.7 | 6 |
| 68 | Parsimonious test of dynamic interaction. Ecology and Evolution, 2019, 9, 1654-1664. | 1.9 | 4 |
| 69 | There and back again - a zebra's tale. Journal of Experimental Biology, 2020, 223, . | 1.7 | 3 |
| 70 | The role of biomechanics research in the understanding of equine lameness. Equine Veterinary Journal, 1994, 26, 435-436. | 1.7 | 1 |
| 71 | Towards Precise Synchronisation in Wireless Sensor Networks. , 2010, , . | | 1 |
| 72 | Effects of artificial water provision on migratory blue wildebeest and zebra in the Makgadikgadi Pans ecosystem, Botswana. Biological Conservation, 2022, 268, 109502. | 4.1 | 1 |

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|---|---|---|---|
| 73 | Animal locomotion. Journal of Biomechanics, 2007, 40, S3. | 2.1 | 0 |
| 74 | The role of biomechanics in the study of conformation and its relationship to orthopaedic health. Equine Veterinary Journal, 2007, 39, 14-16. | 1.7 | 0 |
| 75 | R. McNeill Alexander (1934â€“2016). Nature, 2016, 532, 442-442. | 27.8 | 0 |