

# Geoff R Fernie

## List of Publications by Year in descending order

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Version: 2024-02-01

117  
papers

3,244  
citations

186265

28  
h-index

168389

53  
g-index

121  
all docs

121  
docs citations

121  
times ranked

2759  
citing authors

#	ARTICLE	IF	CITATIONS
1	A New Performance Metric to Estimate the Risk of Exposure to Infection in a Health Care Setting: Descriptive Study. <i>JMIR Formative Research</i> , 2022, 6, e32384.	1.4	1
2	Development of a simulation-based experimental research framework for the characterization of cannabis-related driving impairment. <i>Transportation Research Interdisciplinary Perspectives</i> , 2022, 13, 100561.	2.7	1
3	Evaluation of Winter Footwear: Comparison of Test Methods to Determine Footwear Slip Resistance on Ice Surfaces. <i>International Journal of Environmental Research and Public Health</i> , 2021, 18, 405.	2.6	9
4	A novel approach for slip resistance evaluation of winter footwear based on probability of slipping and cost analysis. <i>Safety Science</i> , 2021, 137, 105133.	4.9	2
5	Influential Factors in Remote Monitoring of Heart Failure Patients: A Review of the Literature and Direction for Future Research. <i>Sensors</i> , 2021, 21, 3575.	3.8	5
6	Quantifying Mobility Scooter Performance in Winter Environments. <i>Archives of Physical Medicine and Rehabilitation</i> , 2021, 102, 1902-1909.	0.9	3
7	Design of a Novel Wearable System for Foot Clearance Estimation. <i>Sensors</i> , 2021, 21, 7891.	3.8	3
8	Bathing frail seniors at home: Home care providers' approaches. <i>Work</i> , 2020, 66, 499-517.	1.1	4
9	A Vision-Based Approach for Sidewalk and Walkway Trip Hazards Assessment. <i>International Journal of Environmental Research and Public Health</i> , 2020, 17, 8438.	2.6	1
10	Deep Neural Network for Slip Detection on Ice Surface. <i>Sensors</i> , 2020, 20, 6883.	3.8	6
11	Challenges to Human Drivers in Increasingly Automated Vehicles. <i>Human Factors</i> , 2020, 62, 310-328.	3.5	49
12	Toward mitigating pressure injuries: Detecting patient orientation from vertical bed reaction forces. <i>Journal of Rehabilitation and Assistive Technologies Engineering</i> , 2020, 7, 205566832091216.	0.9	3
13	Selecting slip resistant winter footwear for personal support workers. <i>Work</i> , 2019, 64, 135-151.	1.1	12
14	Slip resistance and wearability of safety footwear used on icy surfaces for outdoor municipal workers. <i>Work</i> , 2019, 62, 37-47.	1.1	14
15	Effect of calf muscle electrical stimulation on rostral fluid shift, snoring and obstructive sleep apnea. <i>Sleep Medicine</i> , 2019, 57, 36-42.	1.6	4
16	Secondary measures of hand hygiene performance in health care available with continuous electronic monitoring of individuals. <i>American Journal of Infection Control</i> , 2019, 47, 38-44.	2.3	10
17	Effect of intermittent deployment of an electronic monitoring system on hand hygiene behaviors in healthcare workers. <i>American Journal of Infection Control</i> , 2019, 47, 376-380.	2.3	9
18	Effects of multi-functional surface-texturing on the ice friction and abrasion characteristics of hybrid composite materials for footwear. <i>Wear</i> , 2019, 418-419, 253-264.	3.1	9

#	ARTICLE	IF	CITATIONS
19	Assisting Frail Seniors With Toileting in a Home Bathroom: Approaches Used by Home Care Providers. <i>Journal of Applied Gerontology</i> , 2019, 38, 717-749.	2.0	12
20	Walkway Safety Evaluation and Hazards Investigation for Trips and Stumbles Prevention. <i>Advances in Intelligent Systems and Computing</i> , 2019, , 807-815.	0.6	3
21	Effect of electronic real-time prompting on hand hygiene behaviors in health care workers. <i>American Journal of Infection Control</i> , 2018, 46, 768-774.	2.3	23
22	Reproducibility and predictors of the apnea hypopnea index across multiple nights. <i>Sleep Science</i> , 2018, 11, 28-33.	1.0	8
23	Evolution of the Coefficient of Friction with Surface Wear for Advanced Surface Textured Composites. <i>Advanced Materials Interfaces</i> , 2017, 4, 1600983.	3.7	24
24	The Effect of Electrical Stimulation of the Calf Muscle on Leg Fluid Accumulation over a Long Period of Sitting. <i>Scientific Reports</i> , 2017, 7, 6055.	3.3	8
25	How a diverse research ecosystem has generated new rehabilitation technologies: Review of NIDILRR's Rehabilitation Engineering Research Centers. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2017, 14, 109.	4.6	17
26	Multifunctional Textured Surfaces with Enhanced Friction and Hydrophobic Behaviors Produced by Fiber Debonding and Pullout. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 29818-29826.	8.0	19
27	Slip resistance of winter footwear on snow and ice measured using maximum achievable incline. <i>Ergonomics</i> , 2016, 59, 717-728.	2.1	20
28	Comparison of in-laboratory and home diagnosis of sleep apnea using a cordless portable acoustic device. <i>Sleep Medicine</i> , 2016, 22, 91-96.	1.6	24
29	Age-related differences in dynamic balance control during stair descent and effect of varying step geometry. <i>Applied Ergonomics</i> , 2016, 52, 275-284.	3.1	64
30	Estimation of sleep status in sleep apnea patients using a novel head actigraphy technique. , 2015, 2015, 5416-9.		3
31	High friction on ice provided by elastomeric fiber composites with textured surfaces. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	19
32	Assessing the performance of winter footwear using a new maximum achievable incline method. <i>Applied Ergonomics</i> , 2015, 50, 218-225.	3.1	12
33	The Evaluation of Vertical Pole Configuration and Location on Assisting the Sit-to-Stand Movement in Older Adults with Mobility Limitations. <i>Assistive Technology</i> , 2015, 27, 208-218.	2.0	7
34	Hand hygiene monitoring technology: a systematic review of efficacy. <i>Journal of Hospital Infection</i> , 2015, 89, 51-60.	2.9	72
35	1513Efficacy of Hand Hygiene (HH) Monitoring Technology: a Systematic Review. <i>Open Forum Infectious Diseases</i> , 2014, 1, S401-S401.	0.9	0
36	Automated Monitoring. <i>CIN - Computers Informatics Nursing</i> , 2014, 32, 397-403.	0.5	15

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37	Footwear and Mobility Scooters: Developing Performance Standards For Winter Conditions Using An Adjustable Ramp Test. Archives of Physical Medicine and Rehabilitation, 2014, 95, e105.	0.9	1
38	Electronic Monitoring of Individual Healthcare Workersâ€™ Hand Hygiene Event Rate. Infection Control and Hospital Epidemiology, 2014, 35, 1189-1192.	1.8	7
39	A system for portable sleep apnea diagnosis using an embedded data capturing module. Journal of Clinical Monitoring and Computing, 2013, 27, 303-311.	1.6	30
40	Aging and the Use of Pedestrian Facilities in Winterâ€™The Need for Improved Design and Better Technology. Journal of Urban Health, 2013, 90, 602-617.	3.6	34
41	Validation of an automated algorithm for detecting apneas and hypopneas by acoustic analysis of breath sounds. Sleep Medicine, 2013, 14, 562-571.	1.6	32
42	Hand hygiene monitoring technology: protocol for a systematic review. Systematic Reviews, 2013, 2, 101.	5.3	19
43	The Effect of Automated Monitoring and Real-Time Prompting on Nursesâ€™ Hand Hygiene Performance. CIN - Computers Informatics Nursing, 2013, 31, 498-504.	0.5	20
44	Using psychological theory to inform methods to optimize the implementation of a hand hygiene intervention. Implementation Science, 2012, 7, 77.	6.9	64
45	A biomechanical assessment of floor and overhead lifts using one or two caregivers for patient transfers. Applied Ergonomics, 2012, 43, 521-531.	3.1	36
46	Evaluation of a Contact Sensor Skirt for an Anti-Collision Power Wheelchair for Older Adult Nursing Home Residents With Dementia: Safety and Mobility. Assistive Technology, 2011, 23, 117-134.	2.0	18
47	Automatic detection of the onset of nursing activities using accelerometers and adaptive segmentation. Technology and Health Care, 2011, 19, 319-329.	1.2	2
48	Reducing fall risk by improving balance control: Development, evaluation and knowledge-translation of new approaches. Journal of Safety Research, 2011, 42, 473-485.	3.6	58
49	The effects of caregiver experience on low back loads during floor and overhead lift maneuvering activities. International Journal of Industrial Ergonomics, 2011, 41, 653-660.	2.6	9
50	Design of built environments to accommodate mobility scooter users: part I. Disability and Rehabilitation: Assistive Technology, 2011, 6, 67-76.	2.2	13
51	The experiences of using an anti-collision power wheelchair for three long-term care home residents with mild cognitive impairment. Disability and Rehabilitation: Assistive Technology, 2011, 6, 347-363.	2.2	10
52	Design of built environments to accommodate mobility scooter users: part II. Disability and Rehabilitation: Assistive Technology, 2011, 6, 432-439.	2.2	15
53	Usability testing of multimodal feedback interface and simulated collision-avoidance power wheelchair for long-term-care home residents with cognitive impairments. Journal of Rehabilitation Research and Development, 2011, 48, 801.	1.6	30
54	Phase tracking of the breathing cycle in sleeping subjects by frequency analysis of acoustic data. International Journal of Healthcare Technology and Management, 2010, 11, 163.	0.1	6

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55	Pedestrian behavior and safety on a two-stage crossing with a center refuge island and the effect of winter weather on pedestrian compliance rate. <i>Accident Analysis and Prevention</i> , 2010, 42, 1156-1163.	5.7	81
56	Nursing activity recognition using an inexpensive game controller: An application to infection control. <i>Technology and Health Care</i> , 2010, 18, 393-408.	1.2	7
57	Defining the configuration of a hand hygiene monitoring system. <i>American Journal of Infection Control</i> , 2010, 38, 518-522.	2.3	19
58	Embedded System for Hygiene Compliance Monitoring. <i>IEEE Transactions on Automation Science and Engineering</i> , 2010, 7, 695-698.	5.2	11
59	CEAL - Flight Simulation Technology Applied to Rehabilitation Research. , 2010, , .		0
60	Adaptive segmentation and normalization of breathing acoustic data of subjects with obstructive sleep apnea. , 2009, , .		7
61	Corrigendum to "Acceptability of a wearable hand hygiene device with monitoring capabilities [ <i>Journal of Hospital Infection</i> 2008; 70: 216-222]" <i>Journal of Hospital Infection</i> , 2009, 71, 389.	2.9	0
62	Blood pressure and thermal responses to repeated whole body cold exposure: effect of winter clothing. <i>European Journal of Applied Physiology</i> , 2009, 107, 673-685.	2.5	23
63	Advanced Technologies to Curb Healthcare-Associated Infections. <i>HealthcarePapers</i> , 2009, 9, 52-55.	0.3	11
64	Power Mobility for a Nursing Home Resident With Dementia. <i>American Journal of Occupational Therapy</i> , 2009, 63, 765-771.	0.3	11
65	Advanced technologies to curb healthcare-associated infections. , 2009, 9, 51-5 discussion 60-2.		3
66	Acceptability of a wearable hand hygiene device with monitoring capabilities. <i>Journal of Hospital Infection</i> , 2008, 70, 216-222.	2.9	54
67	Preventing falls in older adults: New interventions to promote more effective change-in-support balance reactions. <i>Journal of Electromyography and Kinesiology</i> , 2008, 18, 243-254.	1.7	99
68	Efficacy and Effectiveness of a Balance-Enhancing Insole. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2008, 63, 595-602.	3.6	101
69	Interventions to Promote More Effective Balance-Recovery Reactions in Industrial Settings: New Perspectives on Footwear and Handrails. <i>Industrial Health</i> , 2008, 46, 40-50.	1.0	22
70	A Planning System Based on Markov Decision Processes to Guide People With Dementia Through Activities of Daily Living. <i>IEEE Transactions on Information Technology in Biomedicine</i> , 2006, 10, 323-333.	3.2	144
71	Adaptive Technology. , 2006, , 425-441.		4
72	Utilization of ultrasound sensors for anti-collision systems of powered wheelchairs. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2005, 13, 24-32.	4.9	27

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73	Understanding and measuring powered wheelchair mobility and manoeuvrability. Part I. Reach in confined spaces. <i>Disability and Rehabilitation</i> , 2005, 27, 939-949.	1.8	35
74	Stairs And Winter Weather. <i>Medicine and Science in Sports and Exercise</i> , 2005, 37, S257-S258.	0.4	1
75	Winter Presents Barriers To Physical And Social Activity In Functionally Impaired Older Adults. <i>Medicine and Science in Sports and Exercise</i> , 2005, 37, S257.	0.4	1
76	The efficacy of an intelligent cognitive orthosis to facilitate handwashing by persons with moderate to severe dementia. <i>Neuropsychological Rehabilitation</i> , 2004, 14, 135-171.	1.6	93
77	Change-in-support reactions for balance recovery. <i>IEEE Engineering in Medicine and Biology Magazine</i> , 2003, 22, 20-26.	0.8	120
78	The development of a computerized cueing device to help people with dementia to be more independent. <i>Technology and Disability</i> , 2001, 13, 23-40.	0.6	30
79	The Use of Artificial Intelligence in the Design of an Intelligent Cognitive Orthosis for People with Dementia. <i>Assistive Technology</i> , 2001, 13, 23-39.	2.0	78
80	Product Development: Using a 3D Computer Model to Optimize the Stability of the Rocketâ„¢ Powered Wheelchair. <i>Assistive Technology</i> , 2001, 13, 46-58.	2.0	1
81	LOWER BACK LOADS DURING MANEUVERING TASKS WITH LIFTING DEVICES. <i>Biomechanisms</i> , 2000, 15, 243-254.	0.1	8
82	The Efficacy of Head Immobilization Techniques During Simulated Vehicle Motion. <i>Spine</i> , 1999, 24, 1839.	2.0	45
83	An Interface to Enhance Mobility for People with Hemispatial Neglect. <i>Assistive Technology</i> , 1997, 9, 55-61.	2.0	7
84	A Guideline for the Design of a Four-Wheeled Walker. <i>Assistive Technology</i> , 1997, 9, 116-129.	2.0	17
85	Research and Development in Assistive Technology at the Centre for Studies in Aging in Toronto. <i>Technology and Disability</i> , 1994, 3, 315-320.	0.6	0
86	Technology to assist elderly people's safe mobility. <i>Experimental Aging Research</i> , 1994, 20, 219-228.	1.2	2
87	The Impact of New Lifting Technology in Long Term Care. <i>AAOHN Journal</i> , 1994, 42, 582-589.	0.5	23
88	Increasing the Accessibility of a Conventional Cooking Range for Wheelchair Users. <i>American Journal of Occupational Therapy</i> , 1994, 48, 463-466.	0.3	3
89	Bladder volume estimation in the elderly using a portable ultrasound-based measurement device. <i>Journal of Medical Engineering and Technology</i> , 1993, 17, 99-103.	1.4	18
90	Assistive Devices, Robotics, and Quality of Life in the Frail Elderly. , 1991, , 142-167.		2

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91	Design of an Intervertebral Disc Prosthesis. <i>Spine</i> , 1991, 16, S256-S260.	2.0	142
92	Aging and Postural Control. <i>Journal of the American Geriatrics Society</i> , 1990, 38, 1-9.	2.6	355
93	Impact attenuation of floor coverings in simulated falling accidents. <i>Applied Ergonomics</i> , 1990, 21, 107-114.	3.1	49
94	Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) in Prosthetics. <i>Clinical Orthopaedics and Related Research</i> , 1990, &NA;, 39???43.	1.5	8
95	Organizing Group Programs for Cognitively Impaired Elderly Residents of Nursing Homes. <i>Clinical Gerontologist</i> , 1990, 9, 123-134.	2.2	4
96	An evaluation of computer aided design of below-knee prosthetic sockets. <i>Prosthetics and Orthotics International</i> , 1990, 14, 136-142.	1.0	16
97	Technological innovations for individuals with Alzheimer's disease. <i>American Journal of Alzheimer S Care and Related Disorders &amp; Research</i> , 1990, 5, 9-14.	0.1	3
98	Oxybutynin Chloride for Geriatric Urinary Dysfunction: a Double-blind Placebo-controlled Study. <i>Age and Ageing</i> , 1989, 18, 195-200.	1.6	82
99	Specifications for a mass producible static lounge chair for the elderly. <i>Applied Ergonomics</i> , 1989, 20, 39-45.	3.1	8
100	Chapter 26 A system identification approach to balance testing. <i>Progress in Brain Research</i> , 1988, 76, 297-306.	1.4	13
101	Migration, Attachment, and Orientation of Human Gingival Fibroblasts to Root Slices, Naked and Porous-surfaced Titanium Alloy Discs, and Zircalloy 2 Discs in vitro. <i>Journal of Dental Research</i> , 1987, 66, 1000-1005.	5.2	24
102	Production of a reproducible spinal burst fracture for use in biomechanical testing. <i>Journal of Orthopaedic Research</i> , 1987, 5, 462-465.	2.3	28
103	A Posture Control Model and Balance Test for the Prediction of Relative Postural Stability. <i>IEEE Transactions on Biomedical Engineering</i> , 1987, BME-34, 797-810.	4.2	93
104	Results of the pilot phase of a clinical evaluation of computer aided design of trans-tibial prosthesis sockets. <i>Prosthetics and Orthotics International</i> , 1986, 10, 142-148.	1.0	12
105	Effectiveness of propantheline bromide in the treatment of geriatric patients with detrusor instability. <i>Neurourology and Urodynamics</i> , 1986, 5, 133-140.	1.5	56
106	Reply by authors: Effectiveness of propantheline bromide in the treatment of geriatric patients with detrusor instability. <i>Neurourology and Urodynamics</i> , 1986, 5, 143-144.	1.5	0
107	An anatomical comparison of the human and bovine thoracolumbar spine. <i>Journal of Orthopaedic Research</i> , 1986, 4, 298-303.	2.3	139
108	On the classification of a geriatric subject as a faller or nonfaller. <i>Medical and Biological Engineering and Computing</i> , 1986, 24, 219-222.	2.8	23

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109	Research Note Effect of Stairway Pitch on Optimal Handrail Height. Human Factors, 1985, 27, 355-359.	3.5	19
110	Shape sensing as an educational aid for student prosthetists. Prosthetics and Orthotics International, 1984, 8, 87-90.	1.0	8
111	Influence of Stairway Handrail Height on the Ability to Generate Stabilizing Forces and Moments. Human Factors, 1984, 26, 705-714.	3.5	27
112	Urodynamic Characterization of Incontinence in the Elderly by Bladder Volume. Journal of Urology, 1983, 129, 772-774.	0.4	11
113	Urinary Dysfunction in a Geriatric Longâ€Term Care Population: Prevalence and Patterns*. Journal of the American Geriatrics Society, 1981, 29, 211-214.	2.6	72
114	An instrument for the measurement of foot and ankle volume. Journal of Medical Engineering and Technology, 1979, 3, 140-140.	1.4	0
115	An assessment of a system to monitor the activity of patients in a rehabilitation programme. Prosthetics and Orthotics International, 1979, 3, 99-102.	1.0	19
116	Techniques of lower limb prosthetic manufacture using Lightcast II. Prosthetics and Orthotics International, 1977, 1, 84-88.	1.0	4
117	A percutaneous implant using a porous metal surface coating for adhesion to bone and a velour covering for soft tissue attachment: Results of trials in pigs. Journal of Biomedical Materials Research Part B, 1977, 11, 883-891.	3.1	19