

Ãyvind Sandbakk

List of Publications by Year in descending order

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117
papers

2,657
citations

218677

26
h-index

223800

46
g-index

117
all docs

117
docs citations

117
times ranked

1538
citing authors

#	ARTICLE	IF	CITATIONS
1	Physiological Capacity and Training Routines of Elite Cross-Country Skiers: Approaching the Upper Limits of Human Endurance. <i>International Journal of Sports Physiology and Performance</i> , 2017, 12, 1003-1011.	2.3	142
2	Analysis of sprint cross-country skiing using a differential global navigation satellite system. <i>European Journal of Applied Physiology</i> , 2010, 110, 585-595.	2.5	136
3	The Training and Development of Elite Sprint Performance: an Integration of Scientific and Best Practice Literature. <i>Sports Medicine - Open</i> , 2019, 5, 44.	3.1	128
4	Metabolic rate and gross efficiency at high work rates in world class and national level sprint skiers. <i>European Journal of Applied Physiology</i> , 2010, 109, 473-481.	2.5	114
5	The Training Characteristics of the World's Most Successful Female Cross-Country Skier. <i>Frontiers in Physiology</i> , 2017, 8, 1069.	2.8	107
6	A Reappraisal of Success Factors for Olympic Cross-Country Skiing. <i>International Journal of Sports Physiology and Performance</i> , 2014, 9, 117-121.	2.3	106
7	Dietary Nitrate Does Not Enhance Running Performance in Elite Cross-Country Skiers. <i>Medicine and Science in Sports and Exercise</i> , 2012, 44, 2213-2219.	0.4	105
8	Analysis of a sprint ski race and associated laboratory determinants of world-class performance. <i>European Journal of Applied Physiology</i> , 2011, 111, 947-957.	2.5	101
9	Sex Differences in World-Record Performance: The Influence of Sport Discipline and Competition Duration. <i>International Journal of Sports Physiology and Performance</i> , 2018, 13, 2-8.	2.3	87
10	The Physiological Capacity of the World's Highest Ranked Female Cross-country Skiers. <i>Medicine and Science in Sports and Exercise</i> , 2016, 48, 1091-1100.	0.4	79
11	Training During the COVID-19 Lockdown: Knowledge, Beliefs, and Practices of 12,526 Athletes from 142 Countries and Six Continents. <i>Sports Medicine</i> , 2022, 52, 933-948.	6.5	78
12	Gender differences in power production, energetic capacity and efficiency of elite cross-country skiers during whole-body, upper-body, and arm poling. <i>European Journal of Applied Physiology</i> , 2016, 116, 291-300.	2.5	67
13	Analysis of Classical Time-Trial Performance and Technique-Specific Physiological Determinants in Elite Female Cross-Country Skiers. <i>Frontiers in Physiology</i> , 2016, 7, 326.	2.8	55
14	Speed and Heart-Rate Profiles in Skating and Classical Cross-Country-Skiing Competitions. <i>International Journal of Sports Physiology and Performance</i> , 2015, 10, 873-880.	2.3	54
15	New Records in Human Power. <i>International Journal of Sports Physiology and Performance</i> , 2018, 13, 678-686.	2.3	51
16	Effects of acute supplementation of L-arginine and nitrate on endurance and sprint performance in elite athletes. <i>Nitric Oxide - Biology and Chemistry</i> , 2015, 48, 10-15.	2.7	48
17	The influence of incline and speed on work rate, gross efficiency and kinematics of roller ski skating. <i>European Journal of Applied Physiology</i> , 2012, 112, 2829-2838.	2.5	47
18	Are Gender Differences in Upper-Body Power Generated by Elite Cross-Country Skiers Augmented by Increasing the Intensity of Exercise?. <i>PLoS ONE</i> , 2015, 10, e0127509.	2.5	47

#	ARTICLE	IF	CITATIONS
19	Gender differences in the physiological responses and kinematic behaviour of elite sprint cross-country skiers. <i>European Journal of Applied Physiology</i> , 2012, 112, 1087-1094.	2.5	41
20	Peak oxygen uptake in Paralympic sitting sports: A systematic literature review, meta- and pooled-data analysis. <i>PLoS ONE</i> , 2018, 13, e0192903.	2.5	40
21	Sex-based differences in speed, sub-technique selection, and kinematic patterns during low- and high-intensity training for classical cross-country skiing. <i>PLoS ONE</i> , 2018, 13, e0207195.	2.5	36
22	Automatic Classification of Sub-Techniques in Classical Cross-Country Skiing Using a Machine Learning Algorithm on Micro-Sensor Data. <i>Sensors</i> , 2018, 18, 75.	3.8	36
23	Comparison of the Effects of Performance Level and Sex on Sprint Performance in the Biathlon World Cup. <i>International Journal of Sports Physiology and Performance</i> , 2018, 13, 360-366.	2.3	31
24	Crossing the Golden Training Divide: The Science and Practice of Training World-Class 800- and 1500-m Runners. <i>Sports Medicine</i> , 2021, 51, 1835-1854.	6.5	31
25	The role of incline, performance level, and gender on the gross mechanical efficiency of roller ski skating. <i>Frontiers in Physiology</i> , 2013, 4, 293.	2.8	30
26	On the Importance of "Front-Side Mechanics" in Athletics Sprinting. <i>International Journal of Sports Physiology and Performance</i> , 2018, 13, 420-427.	2.3	29
27	A Comparison of Frontal Theta Activity During Shooting among Biathletes and Cross-Country Skiers before and after Vigorous Exercise. <i>PLoS ONE</i> , 2016, 11, e0150461.	2.5	28
28	A multi-sensor system for automatic analysis of classical cross-country skiing techniques. <i>Sports Engineering</i> , 2017, 20, 313-327.	1.1	27
29	Block vs. Traditional Periodization of HIT: Two Different Paths to Success for the World's Best Cross-Country Skier. <i>Frontiers in Physiology</i> , 2019, 10, 375.	2.8	27
30	The effects of skiing velocity on mechanical aspects of diagonal cross-country skiing. <i>Sports Biomechanics</i> , 2014, 13, 267-284.	1.6	25
31	The Role of Power Fluctuations in the Preference of Diagonal vs. Double Poling Sub-Technique at Different Incline-Speed Combinations in Elite Cross-Country Skiers. <i>Frontiers in Physiology</i> , 2017, 8, 94.	2.8	25
32	The Influence of Pole Length on Performance, O ₂ Cost, and Kinematics in Double Poling. <i>International Journal of Sports Physiology and Performance</i> , 2017, 12, 211-217.	2.3	24
33	Changes in Technique and Efficiency After High-Intensity Exercise in Cross-Country Skiers. <i>International Journal of Sports Physiology and Performance</i> , 2014, 9, 19-24.	2.3	22
34	Contribution of Upper-Body Strength, Body Composition, and Maximal Oxygen Uptake to Predict Double Poling Power and Overall Performance in Female Cross-Country Skiers. <i>Journal of Strength and Conditioning Research</i> , 2016, 30, 2557-2564.	2.1	22
35	The Evolution of Champion Cross-Country-Skier Training: From Lumberjacks to Professional Athletes. <i>International Journal of Sports Physiology and Performance</i> , 2017, 12, 254-259.	2.3	20
36	The Contribution From Cross-Country Skiing and Shooting Variables on Performance-Level and Sex Differences in Biathlon World Cup Individual Races. <i>International Journal of Sports Physiology and Performance</i> , 2019, 14, 190-195.	2.3	20

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37	Sport-Specific Physiological Adaptations in Highly Trained Endurance Athletes. <i>Medicine and Science in Sports and Exercise</i> , 2015, 47, 2150-2157.	0.4	19
38	Mechanical Energy and Propulsion in Ergometer Double Poling by Cross-country Skiers. <i>Medicine and Science in Sports and Exercise</i> , 2015, 47, 2586-2594.	0.4	19
39	Sedentary Time, Cardiorespiratory Fitness, and Cardiovascular Risk Factor Clustering in Older Adults--the Generation 100 Study. <i>Mayo Clinic Proceedings</i> , 2016, 91, 1525-1534.	3.0	18
40	Effects of upper-body sprint-interval training on strength and endurance capacities in female cross-country skiers. <i>PLoS ONE</i> , 2017, 12, e0172706.	2.5	17
41	Mechanical energetics and dynamics of uphill double-poling on roller-skis at different incline-speed combinations. <i>PLoS ONE</i> , 2019, 14, e0212500.	2.5	17
42	COVID-19 Lockdown: A Global Study Investigating the Effect of Athletes' Sport Classification and Sex on Training Practices. <i>International Journal of Sports Physiology and Performance</i> , 2022, 17, 1242-1256.	2.3	16
43	Using the power balance model to simulate cross-country skiing on varying terrain. <i>Open Access Journal of Sports Medicine</i> , 2014, 5, 89.	1.3	15
44	The Interval-Based Physiological and Mechanical Demands of Cross-Country Ski Training. <i>International Journal of Sports Physiology and Performance</i> , 2019, 14, 1371-1377.	2.3	15
45	The Effect of Maximal Speed Ability, Pacing Strategy, and Technique on the Finish Sprint of a Sprint Cross-Country Skiing Competition. <i>International Journal of Sports Physiology and Performance</i> , 2019, 14, 788-795.	2.3	15
46	On the Relationship Between Upper-Body Strength, Power, and Sprint Performance in Ice Sledge Hockey. <i>Journal of Strength and Conditioning Research</i> , 2013, 27, 3461-3466.	2.1	14
47	The Velocity and Energy Profiles of Elite Cross-Country Skiers Executing Downhill Turns With Different Radii. <i>International Journal of Sports Physiology and Performance</i> , 2014, 9, 41-47.	2.3	14
48	The Long-Term Development of Training, Technical, and Physiological Characteristics of an Olympic Champion in Nordic Combined. <i>Frontiers in Physiology</i> , 2018, 9, 931.	2.8	14
49	Assessment of Basic Motions and Technique Identification in Classical Cross-Country Skiing. <i>Frontiers in Psychology</i> , 2019, 10, 1260.	2.1	14
50	How Do World-Class Nordic Combined Athletes Differ From Specialized Cross-Country Skiers and Ski Jumpers in Sport-Specific Capacity and Training Characteristics?. <i>International Journal of Sports Physiology and Performance</i> , 2016, 11, 899-906.	2.3	13
51	Reciprocal Associations Between Sleep, Mental Strain, and Training Load in Junior Endurance Athletes and the Role of Poor Subjective Sleep Quality. <i>Frontiers in Psychology</i> , 2020, 11, 545581.	2.1	13
52	The physiological and biomechanical contributions of poling to roller ski skating. <i>European Journal of Applied Physiology</i> , 2013, 113, 1979-1987.	2.5	12
53	The effects of heavy upper-body strength training on ice sledge hockey sprint abilities in world class players. <i>Human Movement Science</i> , 2014, 38, 251-261.	1.4	12
54	On the Existence of Step-To-Step Breakpoint Transitions in Accelerated Sprinting. <i>PLoS ONE</i> , 2016, 11, e0159701.	2.5	12

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55	Comparison of peak oxygen uptake and exercise efficiency between upper-body poling and arm crank ergometry in trained paraplegic and able-bodied participants. <i>European Journal of Applied Physiology</i> , 2018, 118, 1857-1867.	2.5	12
56	Exercise-induced trunk fatigue decreases double poling performance in well-trained cross-country skiers. <i>European Journal of Applied Physiology</i> , 2018, 118, 2077-2087.	2.5	12
57	Laboratory- and field-based performance-predictions in cross-country skiing and roller-skiing. <i>PLoS ONE</i> , 2021, 16, e0256662.	2.5	12
58	The physiological responses to repeated upper-body sprint exercise in highly trained athletes. <i>European Journal of Applied Physiology</i> , 2015, 115, 1381-1391.	2.5	11
59	The physiological and biomechanical differences between double poling and G3 skating in world class cross-country skiers. <i>European Journal of Applied Physiology</i> , 2015, 115, 483-487.	2.5	11
60	Let's Close the Gap Between Research and Practice to Discover New Land Together!. <i>International Journal of Sports Physiology and Performance</i> , 2018, 13, 961.	2.3	11
61	Analysis of a Biathlon Sprint Competition and Associated Laboratory Determinants of Performance. <i>Frontiers in Sports and Active Living</i> , 2019, 1, 60.	1.8	11
62	Sex-based differences in sub-technique selection during an international classical cross-country skiing competition. <i>PLoS ONE</i> , 2020, 15, e0239862.	2.5	11
63	Metabolic load comparison between the quarters of a game in elite male basketball players using sport metabolomics. <i>European Journal of Sport Science</i> , 2021, 21, 1022-1034.	2.7	11
64	Exploring intensity-dependent modulations in EEG resting-state network efficiency induced by exercise. <i>European Journal of Applied Physiology</i> , 2021, 121, 2423-2435.	2.5	11
65	Sex differences in sleep and influence of the menstrual cycle on women's sleep in junior endurance athletes. <i>PLoS ONE</i> , 2021, 16, e0253376.	2.5	11
66	The Effects of Cold Environments on Double-Poling Performance and Economy in Male Cross-Country Skiers Wearing a Standard Racing Suit. <i>International Journal of Sports Physiology and Performance</i> , 2016, 11, 776-782.	2.3	10
67	The role of speed and incline in the spontaneous choice of technique in classical roller-skiing. <i>Human Movement Science</i> , 2017, 55, 100-107.	1.4	10
68	The effect of exercise intensity on joint power and dynamics in ergometer double-poling performed by cross-country skiers. <i>Human Movement Science</i> , 2018, 57, 83-93.	1.4	10
69	Comparison of Short-Sprint and Heavy Strength Training on Cycling Performance. <i>Frontiers in Physiology</i> , 2019, 10, 1132.	2.8	9
70	The Training Characteristics of World-Class Male Long-Distance Cross-Country Skiers. <i>Frontiers in Sports and Active Living</i> , 2021, 3, 641389.	1.8	9
71	Association between laboratory capacities and world-cup performance in Nordic combined. <i>PLoS ONE</i> , 2017, 12, e0180388.	2.5	8
72	Effects of Initial Performance, Gross Efficiency and O ₂ peak Characteristics on Subsequent Adaptations to Endurance Training in Competitive Cyclists. <i>Frontiers in Physiology</i> , 2018, 9, 713.	2.8	8

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73	Contribution from cross-country skiing, start time and shooting components to the overall and isolated biathlon pursuit race performance. PLoS ONE, 2020, 15, e0239057.	2.5	8
74	Physiological and Biomechanical Determinants of Sprint Ability Following Variable Intensity Exercise When Roller Ski Skating. Frontiers in Physiology, 2021, 12, 638499.	2.8	8
75	The effects of the arm swing on biomechanical and physiological aspects of roller ski skating. Human Movement Science, 2014, 36, 1-11.	1.4	7
76	The Physiology and Biomechanics of Upper-Body Repeated Sprints in Ice Sledge Hockey. International Journal of Sports Physiology and Performance, 2014, 9, 77-84.	2.3	7
77	Estimation of Mechanical Power Output Employing Deep Learning on Inertial Measurement Data in Roller Ski Skating. Sensors, 2021, 21, 6500.	3.8	7
78	Concurrent Development of Endurance Capacity and Explosiveness: Training Characteristics of World-Class Nordic Combined Athletes. International Journal of Sports Physiology and Performance, 2016, 11, 643-651.	2.3	6
79	Strength Determinants of Jump Height in the Jump Throw Movement in Women Handball Players. Journal of Strength and Conditioning Research, 2020, 34, 2937-2946.	2.1	6
80	Intensity Control During Block-Periodized High-Intensity Training: Heart Rate and Lactate Concentration During Three Annual Seasons in World-Class Cross-Country Skiers. Frontiers in Sports and Active Living, 2020, 2, 549407.	1.8	6
81	How Hinge Positioning in Cross-Country Ski Bindings Affect Exercise Efficiency, Cycle Characteristics and Muscle Coordination during Submaximal Roller Skiing. PLoS ONE, 2016, 11, e0153078.	2.5	6
82	Comparison of Peak Oxygen Uptake and Test-Retest Reliability of Physiological Parameters between Closed-End and Incremental Upper-Body Poling Tests. Frontiers in Physiology, 2017, 8, 857.	2.8	5
83	The influence of increased distal loading on metabolic cost, efficiency, and kinematics of roller ski skating. PLoS ONE, 2018, 13, e0197592.	2.5	5
84	The effect of exhaustive exercise on the choice of technique and physiological response in classical roller skiing. European Journal of Applied Physiology, 2018, 118, 2385-2392.	2.5	5
85	Comparison of Peak Oxygen Uptake Between Upper-Body Exercise Modes: A Systematic Literature Review and Meta-Analysis. Frontiers in Physiology, 2020, 11, 412.	2.8	5
86	Effects of Including Sprints in LIT Sessions during a 14-d Camp on Muscle Biology and Performance Measures in Elite Cyclists. Medicine and Science in Sports and Exercise, 2021, 53, 2333-2345.	0.4	5
87	Performance-Determining Variables in Long-Distance Events: Should They Be Determined From a Rested State or After Prolonged Submaximal Exercise?. International Journal of Sports Physiology and Performance, 2021, 16, 647-654.	2.3	5
88	Power Production and Biochemical Markers of Metabolic Stress and Muscle Damage Following a Single Bout of Short-Sprint and Heavy Strength Exercise in Well-Trained Cyclists. Frontiers in Physiology, 2018, 9, 155.	2.8	4
89	Player load in male elite soccer: Comparisons of patterns between matches and positions. PLoS ONE, 2020, 15, e0239162.	2.5	4
90	Effects of including sprints during prolonged cycling on hormonal and muscular responses and recovery in elite cyclists. Scandinavian Journal of Medicine and Science in Sports, 2021, 31, 529-541.	2.9	4

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91	The Effect of 30-Second Sprints During Prolonged Exercise on Gross Efficiency, Electromyography, and Pedaling Technique in Elite Cyclists. International Journal of Sports Physiology and Performance, 2020, 15, 562-570.	2.3	4
92	Examination of gas exchange and blood lactate thresholds in Paralympic athletes during upper-body poling. PLoS ONE, 2018, 13, e0205588.	2.5	3
93	Effects of different increments in workload and duration on peak physiological responses during seated upper-body poling. European Journal of Applied Physiology, 2019, 119, 2025-2031.	2.5	3
94	Development of a Framework for the Investigation of Speed, Power, and Kinematic Patterns in Para Cross-Country Sit-Skiing: A Case Study of an LW12 Athlete. Frontiers in Sports and Active Living, 2019, 1, 4.	1.8	3
95	Energetic Cost and Kinematics of Pushing a Stroller on Flat and Uphill Terrain. Frontiers in Physiology, 2020, 11, 574.	2.8	3
96	Mechanical energy and propulsion mechanics in roller-skiing double-poling at increasing speeds. PLoS ONE, 2021, 16, e0255202.	2.5	3
97	Physiological and Biomechanical Responses to Cross-Country Skiing in Varying Terrain: Low- vs. High-Intensity. Frontiers in Physiology, 2021, 12, 741573.	2.8	3
98	The effects of poling on physiological, kinematic and kinetic responses in roller ski skating. European Journal of Applied Physiology, 2014, 114, 1933-1942.	2.5	2
99	Winter sports special issue. Sports Engineering, 2017, 20, 243-244.	1.1	2
100	Preparing for the Nordic Skiing Events at the Beijing Olympics in 2022: Evidence-Based Recommendations and Unanswered Questions. Journal of Science in Sport and Exercise, 2021, 3, 257-269.	1.0	2
101	Framework for In-Field Analyses of Performance and Sub-Technique Selection in Standing Para Cross-Country Skiers. Sensors, 2021, 21, 4876.	3.8	2
102	A Comparison of Double Poling Physiology and Kinematics Between Long-Distance and All-Round Cross-Country Skiers. Frontiers in Sports and Active Living, 2022, 4, 849731.	1.8	1
103	Choice of Pole and Ski Lengths Among Elite Cross-Country Skiers: The Influence of Sex and Performance Level. Frontiers in Sports and Active Living, 2021, 3, 654864.	1.8	0
104	Pole Length Influences Performance During On-Snow Skating in Female Cross-Country Skiers. Journal of Science in Sport and Exercise, 2021, 3, 348.	1.0	0
105	Comparison of Physiological and Biomechanical Responses to Flat and Uphill Cross-Country Sit-Skiing in Able-Bodied Athletes. International Journal of Sports Physiology and Performance, 2021, 16, 1596-1602.	2.3	0
106	Title is missing!., 2020, 15, e0239057.		0
107	Title is missing!., 2020, 15, e0239057.		0
108	Title is missing!., 2020, 15, e0239057.		0

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109	Title is missing!. , 2020, 15, e0239057.		0
110	Title is missing!. , 2020, 15, e0239057.		0
111	Title is missing!. , 2020, 15, e0239057.		0
112	Player load in male elite soccer: Comparisons of patterns between matches and positions. , 2020, 15, e0239162.		0
113	Player load in male elite soccer: Comparisons of patterns between matches and positions. , 2020, 15, e0239162.		0
114	Player load in male elite soccer: Comparisons of patterns between matches and positions. , 2020, 15, e0239162.		0
115	Player load in male elite soccer: Comparisons of patterns between matches and positions. , 2020, 15, e0239162.		0
116	Player load in male elite soccer: Comparisons of patterns between matches and positions. , 2020, 15, e0239162.		0
117	Player load in male elite soccer: Comparisons of patterns between matches and positions. , 2020, 15, e0239162.		0