

Yuri P Ivanenko

List of Publications by Year in descending order

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144
papers

10,372
citations

36203

51
h-index

37111

96
g-index

151
all docs

151
docs citations

151
times ranked

6014
citing authors

#	ARTICLE	IF	CITATIONS
1	Higher Responsiveness of Pattern Generation Circuitry to Sensory Stimulation in Healthy Humans Is Associated with a Larger Hoffmann Reflex. <i>Biology</i> , 2022, 11, 707.	1.3	3
2	Relation between Step-To-Step Transition Strategies and Walking Pattern in Older Adults. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 5055.	1.3	2
3	Age-related changes in the neuromuscular control of forward and backward locomotion. <i>PLoS ONE</i> , 2021, 16, e0246372.	1.1	17
4	Increasing muscle activity correlations during spontaneous movements in the first six months of life. <i>Neuroscience Letters</i> , 2021, 756, 135957.	1.0	4
5	Neuromuscular Age-Related Adjustment of Gait When Moving Upwards and Downwards. <i>Frontiers in Human Neuroscience</i> , 2021, 15, 749366.	1.0	8
6	Postural control in the elephant. <i>Journal of Experimental Biology</i> , 2021, 224, .	0.8	3
7	Adjustments in the Range of Angular Motion during Walking after Amputation of the Toes: A Case Report. <i>Symmetry</i> , 2021, 13, 2065.	1.1	0
8	Pelvic movements during walking throughout gestation - the relationship between morphology and kinematic parameters. <i>Clinical Biomechanics</i> , 2020, 71, 146-151.	0.5	9
9	Maturation of the Locomotor Circuitry in Children With Cerebral Palsy. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 998.	2.0	20
10	Locomotor patterns during obstacle avoidance in children with cerebral palsy. <i>Journal of Neurophysiology</i> , 2020, 124, 574-590.	0.9	10
11	Spinal motoneurons of the human newborn are highly synchronized during leg movements. <i>Science Advances</i> , 2020, 6, .	4.7	44
12	Clinical Relevance of State-of-the-Art Analysis of Surface Electromyography in Cerebral Palsy. <i>Frontiers in Neurology</i> , 2020, 11, 583296.	1.1	10
13	Emergence of Different Gaits in Infancy: Relationship Between Developing Neural Circuitries and Changing Biomechanics. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 473.	2.0	25
14	Exoskeleton Walk Training in Paralyzed Individuals Benefits From Transcutaneous Lumbar Cord Tonic Electrical Stimulation. <i>Frontiers in Neuroscience</i> , 2020, 14, 416.	1.4	40
15	Distinct locomotor precursors in newborn babies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 9604-9612.	3.3	45
16	Development of Locomotor-Related Movements in Early Infancy. <i>Frontiers in Cellular Neuroscience</i> , 2020, 14, 623759.	1.8	9
17	Differential activation of lumbar and sacral motor pools during walking at different speeds and slopes. <i>Journal of Neurophysiology</i> , 2019, 122, 872-887.	0.9	18
18	Muscle Responses to Passive Joint Movements in Infants During the First Year of Life. <i>Frontiers in Physiology</i> , 2019, 10, 1158.	1.3	13

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19	Neuromusculoskeletal model that walks and runs across a speed range with a few motor control parameter changes based on the muscle synergy hypothesis. <i>Scientific Reports</i> , 2019, 9, 369.	1.6	55
20	Locomotor coordination in patients with Hereditary Spastic Paraplegia. <i>Journal of Electromyography and Kinesiology</i> , 2019, 45, 61-69.	0.7	26
21	Synergistic influences of sensory and central stimuli on non-voluntary rhythmic arm movements. <i>Human Movement Science</i> , 2019, 64, 230-239.	0.6	0
22	Progressive changes in walking kinematics throughout pregnancy – A follow up study. <i>Gait and Posture</i> , 2019, 68, 518-524.	0.6	11
23	Early manifestation of arm – leg coordination during stepping on a surface in human neonates. <i>Experimental Brain Research</i> , 2018, 236, 1105-1115.	0.7	17
24	Gait assessment of the expectant mothers – Systematic review. <i>Gait and Posture</i> , 2018, 62, 7-19.	0.6	12
25	Differential changes in the spinal segmental locomotor output in Hereditary Spastic Paraplegia. <i>Clinical Neurophysiology</i> , 2018, 129, 516-525.	0.7	20
26	Human-Human Interaction Forces and Interlimb Coordination During Side-by-Side Walking With Hand Contact. <i>Frontiers in Physiology</i> , 2018, 9, 179.	1.3	38
27	Backward walking highlights gait asymmetries in children with cerebral palsy. <i>Journal of Neurophysiology</i> , 2018, 119, 1153-1165.	0.9	30
28	Human Postural Control. <i>Frontiers in Neuroscience</i> , 2018, 12, 171.	1.4	245
29	Kinematic patterns while walking on a slope at different speeds. <i>Journal of Applied Physiology</i> , 2018, 125, 642-653.	1.2	41
30	A kinematic synergy for terrestrial locomotion shared by mammals and birds. <i>ELife</i> , 2018, 7, .	2.8	29
31	Rhythmic wrist movements facilitate the soleus H-reflex and non-voluntary air-stepping in humans. <i>Neuroscience Letters</i> , 2017, 638, 39-45.	1.0	5
32	Interaction forces and step synchronization during side-by-side walking with hand contact. <i>Gait and Posture</i> , 2017, 57, 27.	0.6	0
33	Planar covariance of upper and lower limb elevation angles during hand – foot crawling in healthy young adults. <i>Experimental Brain Research</i> , 2017, 235, 3287-3294.	0.7	6
34	Foot Placement Characteristics and Plantar Pressure Distribution Patterns during Stepping on Ground in Neonates. <i>Frontiers in Physiology</i> , 2017, 8, 784.	1.3	18
35	Human Locomotion in Hypogravity: From Basic Research to Clinical Applications. <i>Frontiers in Physiology</i> , 2017, 8, 893.	1.3	31
36	Pendular energy transduction within the step during human walking on slopes at different speeds. <i>PLoS ONE</i> , 2017, 12, e0186963.	1.1	33

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37	Tonic and Rhythmic Spinal Activity Underlying Locomotion. <i>Current Pharmaceutical Design</i> , 2017, 23, 1753-1763.	0.9	20
38	Muscle Coordination and Locomotion in Humans. <i>Current Pharmaceutical Design</i> , 2017, 23, 1821-1833.	0.9	12
39	Immature Spinal Locomotor Output in Children with Cerebral Palsy. <i>Frontiers in Physiology</i> , 2016, 7, 478.	1.3	89
40	Are we ready to move beyond the reductionist approach of classical synergy control?. <i>Physics of Life Reviews</i> , 2016, 17, 38-39.	1.5	2
41	Drawing ellipses in water: evidence for dynamic constraints in the relation between velocity and path curvature. <i>Experimental Brain Research</i> , 2016, 234, 1649-1657.	0.7	14
42	Human cervical spinal cord circuitry activated by tonic input can generate rhythmic arm movements. <i>Journal of Neurophysiology</i> , 2016, 115, 1018-1030.	0.9	20
43	Editorial: Modularity in motor control: from muscle synergies to cognitive action representation. <i>Frontiers in Computational Neuroscience</i> , 2015, 9, 126.	1.2	52
44	Tapping into rhythm generation circuitry in humans during simulated weightlessness conditions. <i>Frontiers in Systems Neuroscience</i> , 2015, 9, 14.	1.2	15
45	Planar Covariation of Hindlimb and Forelimb Elevation Angles during Terrestrial and Aquatic Locomotion of Dogs. <i>PLoS ONE</i> , 2015, 10, e0133936.	1.1	32
46	Neuromuscular adjustments of gait associated with unstable conditions. <i>Journal of Neurophysiology</i> , 2015, 114, 2867-2882.	0.9	112
47	Visual gravity cues in the interpretation of biological movements: neural correlates in humans. <i>NeuroImage</i> , 2015, 104, 221-230.	2.1	46
48	Characteristics of EMG activity in infants with movement disorders. <i>Human Physiology</i> , 2015, 41, 39-46.	0.1	2
49	Design and Control of the MINDWALKER Exoskeleton. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2015, 23, 277-286.	2.7	287
50	Coordination of intrinsic and extrinsic foot muscles during walking. <i>European Journal of Applied Physiology</i> , 2015, 115, 691-701.	1.2	54
51	Spinal motor outputs during step-to-step transitions of diverse human gaits. <i>Frontiers in Human Neuroscience</i> , 2014, 8, 305.	1.0	37
52	EMG patterns during assisted walking in the exoskeleton. <i>Frontiers in Human Neuroscience</i> , 2014, 8, 423.	1.0	106
53	Control of Leg Movements Driven by EMG Activity of Shoulder Muscles. <i>Frontiers in Human Neuroscience</i> , 2014, 8, 838.	1.0	15
54	Locomotor patterns in cerebellar ataxia. <i>Journal of Neurophysiology</i> , 2014, 112, 2810-2821.	0.9	114

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55	Human Locomotion under Reduced Gravity Conditions: Biomechanical and Neurophysiological Considerations. <i>BioMed Research International</i> , 2014, 2014, 1-12.	0.9	34
56	Function dictates the phase dependence of vision during human locomotion. <i>Journal of Neurophysiology</i> , 2014, 112, 165-180.	0.9	55
57	Effects of transcranial magnetic stimulation during voluntary and non-voluntary stepping movements in humans. <i>Neuroscience Letters</i> , 2014, 579, 64-69.	1.0	22
58	Can modular strategies simplify neural control of multidirectional human locomotion?. <i>Journal of Neurophysiology</i> , 2014, 111, 1686-1702.	0.9	97
59	Visual control of trunk translation and orientation during locomotion. <i>Experimental Brain Research</i> , 2014, 232, 1941-1951.	0.7	17
60	Investigation of muscle tone in patients with Parkinsonâ€™s disease in unloading conditions. <i>Human Physiology</i> , 2014, 40, 125-131.	0.1	4
61	Muscle activation patterns are bilaterally linked during split-belt treadmill walking in humans. <i>Journal of Neurophysiology</i> , 2014, 111, 1541-1552.	0.9	58
62	Locomotor-Like Leg Movements Evoked by Rhythmic Arm Movements in Humans. <i>PLoS ONE</i> , 2014, 9, e90775.	1.1	45
63	Coupling of upper and lower limb pattern generators during human crawling at different arm/leg speed combinations. <i>Experimental Brain Research</i> , 2013, 225, 217-225.	0.7	18
64	Are effects of the symmetric and asymmetric tonic neck reflexes still visible in healthy adults?. <i>Neuroscience Letters</i> , 2013, 556, 89-92.	1.0	17
65	Changes in the Spinal Segmental Motor Output for Stepping during Development from Infant to Adult. <i>Journal of Neuroscience</i> , 2013, 33, 3025-3036.	1.7	74
66	Lack of non-voluntary stepping responses in Parkinsonâ€™s disease. <i>Neuroscience</i> , 2013, 235, 96-108.	1.1	19
67	Plasticity and Different Solutions to Reorganize Muscle Patterns during Gait. <i>Biosystems and Biorobotics</i> , 2013, , 1249-1252.	0.2	2
68	Evolutionary and Developmental Modules. <i>Frontiers in Computational Neuroscience</i> , 2013, 7, 61.	1.2	50
69	Plasticity and modular control of locomotor patterns in neurological disorders with motor deficits. <i>Frontiers in Computational Neuroscience</i> , 2013, 7, 123.	1.2	38
70	Biological oscillations for learning walking coordination: dynamic recurrent neural network functionally models physiological central pattern generator. <i>Frontiers in Computational Neuroscience</i> , 2013, 7, 70.	1.2	19
71	Changes of Gait Kinematics in Different Simulators of Reduced Gravity. <i>Journal of Motor Behavior</i> , 2013, 45, 495-505.	0.5	21
72	Trunk Orientation, Stability, and Quadrupedalism. <i>Frontiers in Neurology</i> , 2013, 4, 20.	1.1	20

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73	Features of hand-foot crawling behavior in human adults. <i>Journal of Neurophysiology</i> , 2012, 107, 114-125.	0.9	48
74	MINDWALKER: Going one step further with assistive lower limbs exoskeleton for SCI condition subjects. , 2012, , .		36
75	Foot anatomy specialization for postural sensation and control. <i>Journal of Neurophysiology</i> , 2012, 107, 1513-1521.	0.9	97
76	Recurrence quantification analysis of gait in normal and hypovestibular subjects. <i>Gait and Posture</i> , 2012, 35, 48-55.	0.6	70
77	Development of human locomotion. <i>Current Opinion in Neurobiology</i> , 2012, 22, 822-828.	2.0	89
78	From Spinal Central Pattern Generators to Cortical Network: Integrated BCI for Walking Rehabilitation. <i>Neural Plasticity</i> , 2012, 2012, 1-13.	1.0	91
79	Patterned control of human locomotion. <i>Journal of Physiology</i> , 2012, 590, 2189-2199.	1.3	258
80	Humans Running in Place on Water at Simulated Reduced Gravity. <i>PLoS ONE</i> , 2012, 7, e37300.	1.1	10
81	Locomotor Primitives in Newborn Babies and Their Development. <i>Science</i> , 2011, 334, 997-999.	6.0	552
82	Smooth changes in the EMG patterns during gait transitions under body weight unloading. <i>Journal of Neurophysiology</i> , 2011, 106, 1525-1536.	0.9	32
83	Assisted leg displacements and progressive loading by a tilt table combined with FES promote gait recovery in acute stroke. <i>NeuroRehabilitation</i> , 2011, 29, 67-77.	0.5	20
84	Gait transitions in simulated reduced gravity. <i>Journal of Applied Physiology</i> , 2011, 110, 781-788.	1.2	38
85	Idiosyncratic control of the center of mass in expert climbers. <i>Scandinavian Journal of Medicine and Science in Sports</i> , 2011, 21, 688-699.	1.3	27
86	A novel approach to mechanical foot stimulation during human locomotion under body weight support. <i>Human Movement Science</i> , 2011, 30, 352-367.	0.6	27
87	Locomotor body scheme. <i>Human Movement Science</i> , 2011, 30, 341-351.	0.6	55
88	Optimal walking speed following changes in limb geometry. <i>Journal of Experimental Biology</i> , 2011, 214, 2276-2282.	0.8	38
89	Impulses of activation but not motor modules are preserved in the locomotion of subacute stroke patients. <i>Journal of Neurophysiology</i> , 2011, 106, 202-210.	0.9	170
90	Motor Patterns During Walking on a Slippery Walkway. <i>Journal of Neurophysiology</i> , 2010, 103, 746-760.	0.9	102

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91	The many roles of vision during walking. <i>Experimental Brain Research</i> , 2010, 206, 337-350.	0.7	79
92	Kinematic Strategies in Newly Walking Toddlers Stepping Over Different Support Surfaces. <i>Journal of Neurophysiology</i> , 2010, 103, 1673-1684.	0.9	42
93	Migration of Motor Pool Activity in the Spinal Cord Reflects Body Mechanics in Human Locomotion. <i>Journal of Neurophysiology</i> , 2010, 104, 3064-3073.	0.9	49
94	Changes in the Limb Kinematics and Walking-Distance Estimation After Shank Elongation: Evidence for a Locomotor Body Schema?. <i>Journal of Neurophysiology</i> , 2009, 101, 1419-1429.	0.9	32
95	Activation of walking by electrical stimulation in humans under the conditions of muscle unloading and its variations under the effect of afferent influences. <i>Human Physiology</i> , 2009, 35, 295-305.	0.1	0
96	Distributed neural networks for controlling human locomotion. <i>Brain Research Bulletin</i> , 2009, 78, 13-21.	1.4	74
97	Tonic Central and Sensory Stimuli Facilitate Involuntary Air-Stepping in Humans. <i>Journal of Neurophysiology</i> , 2009, 101, 2847-2858.	0.9	71
98	Spatiotemporal organization of α -motoneuron activity in the human spinal cord during different gaits and gait transitions. <i>European Journal of Neuroscience</i> , 2008, 27, 3351-3368.	1.2	101
99	Asymmetric leg loading during sit-to-stand, walking and quiet standing in patients after unilateral total hip replacement surgery. <i>Clinical Biomechanics</i> , 2008, 23, 424-433.	0.5	119
100	On the Origin of Planar Covariation of Elevation Angles During Human Locomotion. <i>Journal of Neurophysiology</i> , 2008, 99, 1890-1898.	0.9	120
101	Modular Control of Limb Movements during Human Locomotion. <i>Journal of Neuroscience</i> , 2007, 27, 11149-11161.	1.7	206
102	Review Article: Plasticity of Spinal Centers in Spinal Cord Injury Patients: New Concepts for Gait Evaluation and Training. <i>Neurorehabilitation and Neural Repair</i> , 2007, 21, 358-365.	1.4	48
103	Control of Foot Trajectory in Walking Toddlers: Adaptation to Load Changes. <i>Journal of Neurophysiology</i> , 2007, 97, 2790-2801.	0.9	43
104	Development of Independent Walking in Toddlers. <i>Exercise and Sport Sciences Reviews</i> , 2007, 35, 67-73.	1.6	98
105	Space-Time Relativity in Self-Motion Reproduction. <i>Journal of Neurophysiology</i> , 2007, 97, 451-461.	0.9	53
106	Motor Patterns in Human Walking and Running. <i>Journal of Neurophysiology</i> , 2006, 95, 3426-3437.	0.9	633
107	Spinal Cord Maps of Spatiotemporal Alpha-Motoneuron Activation in Humans Walking at Different Speeds. <i>Journal of Neurophysiology</i> , 2006, 95, 602-618.	0.9	173
108	Interaction of involuntary post-contraction activity with locomotor movements. <i>Experimental Brain Research</i> , 2006, 169, 255-260.	0.7	50

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109	Motor Control Programs and Walking. <i>Neuroscientist</i> , 2006, 12, 339-348.	2.6	229
110	Fast Adaptation of the Internal Model of Gravity for Manual Interceptions: Evidence for Event-Dependent Learning. <i>Journal of Neurophysiology</i> , 2005, 93, 1055-1068.	0.9	61
111	Kinematics in Newly Walking Toddlers Does Not Depend Upon Postural Stability. <i>Journal of Neurophysiology</i> , 2005, 94, 754-763.	0.9	48
112	Eye Movements Induced by Changes in the Internal Representation of Body Posture. <i>Human Physiology</i> , 2005, 31, 554-558.	0.1	1
113	Kinematics in Newly Walking Toddlers Does Not Depend Upon Postural Stability. <i>Journal of Neurophysiology</i> , 2005, 94, 754-763.	0.9	97
114	Coordination of Locomotion with Voluntary Movements in Humans. <i>Journal of Neuroscience</i> , 2005, 25, 7238-7253.	1.7	359
115	Distributed plasticity of locomotor pattern generators in spinal cord injured patients. <i>Brain</i> , 2004, 127, 1019-1034.	3.7	158
116	Internal Models of Target Motion: Expected Dynamics Overrides Measured Kinematics in Timing Manual Interceptions. <i>Journal of Neurophysiology</i> , 2004, 91, 1620-1634.	0.9	200
117	Development of pendulum mechanism and kinematic coordination from the first unsupported steps in toddlers. <i>Journal of Experimental Biology</i> , 2004, 207, 3797-3810.	0.8	134
118	Five basic muscle activation patterns account for muscle activity during human locomotion. <i>Journal of Physiology</i> , 2004, 556, 267-282.	1.3	854
119	Recovery of forward stepping in spinal cord injured patients does not transfer to untrained backward stepping. <i>Experimental Brain Research</i> , 2004, 157, 377-82.	0.7	46
120	Postural instability enhances motor responses to transcranial magnetic stimulation in humans. <i>Neuroscience Letters</i> , 2003, 337, 25-28.	1.0	100
121	Spatial invariance in anticipatory orienting behaviour during human navigation. <i>Neuroscience Letters</i> , 2003, 339, 243-247.	1.0	41
122	Temporal Components of the Motor Patterns Expressed by the Human Spinal Cord Reflect Foot Kinematics. <i>Journal of Neurophysiology</i> , 2003, 90, 3555-3565.	0.9	157
123	Two-thirds power law in human locomotion: role of ground contact forces. <i>NeuroReport</i> , 2002, 13, 1171-1174.	0.6	59
124	Control of Foot Trajectory in Human Locomotion: Role of Ground Contact Forces in Simulated Reduced Gravity. <i>Journal of Neurophysiology</i> , 2002, 87, 3070-3089.	0.9	234
125	Spatial, not temporal cues drive predictive orienting movements during navigation. <i>NeuroReport</i> , 2000, 11, 775-778.	0.6	36
126	Neck muscle vibration makes walking humans accelerate in the direction of gaze. <i>Journal of Physiology</i> , 2000, 525, 803-814.	1.3	76

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127	Influence of Leg Muscle Vibration on Human Walking. <i>Journal of Neurophysiology</i> , 2000, 84, 1737-1747.	0.9	118
128	Lack of anticipatory gaze-orienting responses in patients with right brain damage. <i>Neurology</i> , 2000, 54, 1656-1661.	1.5	3
129	The direction of postural instability affects postural reactions to ankle muscle vibration in humans. <i>Neuroscience Letters</i> , 2000, 292, 103-106.	1.0	76
130	Adaptation as a Sensorial Profile in Trait Anxiety. <i>Journal of Anxiety Disorders</i> , 2000, 14, 583-601.	1.5	35
131	Support stability influences postural responses to muscle vibration in humans. <i>European Journal of Neuroscience</i> , 1999, 11, 647-654.	1.2	128
132	Effect of gaze on postural responses to neck proprioceptive and vestibular stimulation in humans. <i>Journal of Physiology</i> , 1999, 519, 301-314.	1.3	88
133	Non-specific directional adaptation to asymmetrical visual-vestibular stimulation. <i>Cognitive Brain Research</i> , 1999, 7, 507-510.	3.3	7
134	Time course of gaze influences on postural responses to neck proprioceptive and galvanic vestibular stimulation in humans. <i>Neuroscience Letters</i> , 1999, 273, 121-124.	1.0	19
135	Sex, Lies And Virtual Reality. <i>Nature Neuroscience</i> , 1998, 1, 15-16.	7.1	52
136	Eye-head coordination for the steering of locomotion in humans: an anticipatory synergy. <i>Neuroscience Letters</i> , 1998, 253, 115-118.	1.0	204
137	Integration of somatosensory and vestibular inputs in perceiving the direction of passive whole-body motion. <i>Cognitive Brain Research</i> , 1997, 5, 323-327.	3.3	14
138	Human equilibrium on unstable support: the importance of feet-support interaction. <i>Neuroscience Letters</i> , 1997, 235, 109-112.	1.0	82
139	Muscle resistance to slow ramp weakly depends on activation level. <i>Neuroscience</i> , 1997, 80, 299-306.	1.1	6
140	The contribution of otoliths and semicircular canals to the perception of two-dimensional passive whole-body motion in humans. <i>Journal of Physiology</i> , 1997, 502, 223-233.	1.3	75
141	Spatial orientation in humans: perception of angular whole-body displacements in two-dimensional trajectories. <i>Experimental Brain Research</i> , 1997, 117, 419-427.	0.7	58
142	The influence of head rotation on human upright posture during balanced bilateral vibration. <i>NeuroReport</i> , 1995, 7, 137-140.	0.6	34
143	Kinesthetic reference for human orthograde posture. <i>Neuroscience</i> , 1995, 68, 229-243.	1.1	190
144	On biological principles of motor control. , 0, , .		0