Yuri P Ivanenko

List of Publications by Year
in descending order

144	10,372	36203	37111
papers	citations	51 h-index	96 g-index

151	151	151	6014
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Five basic muscle activation patterns account for muscle activity during human locomotion. Journal of Physiology, 2004, 556, 267-282.	1.3	854
2	Motor Patterns in Human Walking and Running. Journal of Neurophysiology, 2006, 95, 3426-3437.	0.9	633
3	Locomotor Primitives in Newborn Babies and Their Development. Science, 2011, 334, 997-999.	6.0	552
4	Coordination of Locomotion with Voluntary Movements in Humans. Journal of Neuroscience, 2005, 25, 7238-7253.	1.7	359
5	Design and Control of the MINDWALKER Exoskeleton. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2015, 23, 277-286.	2.7	287
6	Patterned control of human locomotion. Journal of Physiology, 2012, 590, 2189-2199.	1.3	258
7	Human Postural Control. Frontiers in Neuroscience, 2018, 12, 171.	1.4	245
8	Control of Foot Trajectory in Human Locomotion: Role of Ground Contact Forces in Simulated Reduced Gravity. Journal of Neurophysiology, 2002, 87, 3070-3089.	0.9	234
9	Motor Control Programs and Walking. Neuroscientist, 2006, 12, 339-348.	2.6	229
10	Modular Control of Limb Movements during Human Locomotion. Journal of Neuroscience, 2007, 27, 11149-11161.	1.7	206
11	Eye-head coordination for the steering of locomotion in humans: an anticipatory synergy. Neuroscience Letters, 1998, 253, 115-118.	1.0	204
12	Internal Models of Target Motion: Expected Dynamics Overrides Measured Kinematics in Timing Manual Interceptions. Journal of Neurophysiology, 2004, 91, 1620-1634.	0.9	200
13	Kinesthetic reference for human orthograde posture. Neuroscience, 1995, 68, 229-243.	1.1	190
14	Spinal Cord Maps of Spatiotemporal Alpha-Motoneuron Activation in Humans Walking at Different Speeds. Journal of Neurophysiology, 2006, 95, 602-618.	0.9	173
15	Impulses of activation but not motor modules are preserved in the locomotion of subacute stroke patients. Journal of Neurophysiology, 2011, 106, 202-210.	0.9	170
16	Distributed plasticity of locomotor pattern generators in spinal cord injured patients. Brain, 2004, 127, 1019-1034.	3.7	158
17	Temporal Components of the Motor Patterns Expressed by the Human Spinal Cord Reflect Foot Kinematics. Journal of Neurophysiology, 2003, 90, 3555-3565.	0.9	157
18	Development of pendulum mechanism and kinematic coordination from the first unsupported steps in toddlers. Journal of Experimental Biology, 2004, 207, 3797-3810.	0.8	134

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19	Support stability influences postural responses to muscle vibration in humans. European Journal of Neuroscience, 1999, 11, 647-654.	1.2	128
20	On the Origin of Planar Covariation of Elevation Angles During Human Locomotion. Journal of Neurophysiology, 2008, 99, 1890-1898.	0.9	120
21	Asymmetric leg loading during sit-to-stand, walking and quiet standing in patients after unilateral total hip replacement surgery. Clinical Biomechanics, 2008, 23, 424-433.	0.5	119
22	Influence of Leg Muscle Vibration on Human Walking. Journal of Neurophysiology, 2000, 84, 1737-1747.	0.9	118
23	Locomotor patterns in cerebellar ataxia. Journal of Neurophysiology, 2014, 112, 2810-2821.	0.9	114
24	Neuromuscular adjustments of gait associated with unstable conditions. Journal of Neurophysiology, 2015, 114, 2867-2882.	0.9	112
25	EMG patterns during assisted walking in the exoskeleton. Frontiers in Human Neuroscience, 2014, 8, 423.	1.0	106
26	Motor Patterns During Walking on a Slippery Walkway. Journal of Neurophysiology, 2010, 103, 746-760.	0.9	102
27	Spatiotemporal organization of Î±â€motoneuron activity in the human spinal cord during different gaits and gait transitions. European Journal of Neuroscience, 2008, 27, 3351-3368.	1.2	101
28	Postural instability enhances motor responses to transcranial magnetic stimulation in humans. Neuroscience Letters, 2003, 337, 25-28.	1.0	100
29	Development of Independent Walking in Toddlers. Exercise and Sport Sciences Reviews, 2007, 35, 67-73.	1.6	98
30	Kinematics in Newly Walking Toddlers Does Not Depend Upon Postural Stability. Journal of Neurophysiology, 2005, 94, 754-763.	0.9	97
31	Foot anatomy specialization for postural sensation and control. Journal of Neurophysiology, 2012, 107, 1513-1521.	0.9	97
32	Can modular strategies simplify neural control of multidirectional human locomotion?. Journal of Neurophysiology, 2014, 111, 1686-1702.	0.9	97
33	From Spinal Central Pattern Generators to Cortical Network: Integrated BCI for Walking Rehabilitation. Neural Plasticity, 2012, 2012, 1-13.	1.0	91
34	Development of human locomotion. Current Opinion in Neurobiology, 2012, 22, 822-828.	2.0	89
35	Immature Spinal Locomotor Output in Children with Cerebral Palsy. Frontiers in Physiology, 2016, 7, 478.	1.3	89
36	Effect of gaze on postural responses to neck proprioceptive and vestibular stimulation in humans. Journal of Physiology, 1999, 519, 301-314.	1.3	88

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37	Human equilibrium on unstable support: the importance of feet-support interaction. Neuroscience Letters, 1997, 235, 109-112.	1.0	82
38	The many roles of vision during walking. Experimental Brain Research, 2010, 206, 337-350.	0.7	79
39	Neck muscle vibration makes walking humans accelerate in the direction of gaze. Journal of Physiology, 2000, 525, 803-814.	1.3	76
40	The direction of postural instability affects postural reactions to ankle muscle vibration in humans. Neuroscience Letters, 2000, 292, 103-106.	1.0	76
41	The contribution of otoliths and semicircular canals to the perception of two-dimensional passive whole-body motion in humans. Journal of Physiology, 1997, 502, 223-233.	1.3	75
42	Distributed neural networks for controlling human locomotion. Brain Research Bulletin, 2009, 78, 13-21.	1.4	74
43	Changes in the Spinal Segmental Motor Output for Stepping during Development from Infant to Adult. Journal of Neuroscience, 2013, 33, 3025-3036.	1.7	74
44	Tonic Central and Sensory Stimuli Facilitate Involuntary Air-Stepping in Humans. Journal of Neurophysiology, 2009, 101, 2847-2858.	0.9	71
45	Recurrence quantification analysis of gait in normal and hypovestibular subjects. Gait and Posture, 2012, 35, 48-55.	0.6	70
46	Fast Adaptation of the Internal Model of Gravity for Manual Interceptions: Evidence for Event-Dependent Learning. Journal of Neurophysiology, 2005, 93, 1055-1068.	0.9	61
47	Two-thirds power law in human locomotion: role of ground contact forces. NeuroReport, 2002, 13, 1171-1174.	0.6	59
48	Spatial orientation in humans: perception of angular whole-body displacements in two-dimensional trajectories. Experimental Brain Research, 1997, 117, 419-427.	0.7	58
49	Muscle activation patterns are bilaterally linked during split-belt treadmill walking in humans. Journal of Neurophysiology, 2014, 111, 1541-1552.	0.9	58
50	Locomotor body scheme. Human Movement Science, 2011, 30, 341-351.	0.6	55
51	Function dictates the phase dependence of vision during human locomotion. Journal of Neurophysiology, 2014, 112, 165-180.	0.9	55
52	Neuromusculoskeletal model that walks and runs across a speed range with a few motor control parameter changes based on the muscle synergy hypothesis. Scientific Reports, 2019, 9, 369.	1.6	55
53	Coordination of intrinsic and extrinsic foot muscles during walking. European Journal of Applied Physiology, 2015, 115, 691-701.	1.2	54
54	Spaceâ€“Time Relativity in Self-Motion Reproduction. Journal of Neurophysiology, 2007, 97, 451-461.	0.9	53

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55	Sex, Lies And Virtual Reality. Nature Neuroscience, 1998, 1, 15-16.	7.1	52
56	Editorial: Modularity in motor control: from muscle synergies to cognitive action representation. Frontiers in Computational Neuroscience, 2015, 9, 126.	1.2	52
57	Interaction of involuntary post-contraction activity with locomotor movements. Experimental Brain Research, 2006, 169, 255-260.	0.7	50
58	Evolutionary and Developmental Modules. Frontiers in Computational Neuroscience, 2013, 7, 61.	1.2	50
59	Migration of Motor Pool Activity in the Spinal Cord Reflects Body Mechanics in Human Locomotion. Journal of Neurophysiology, 2010, 104, 3064-3073.	0.9	49
60	Kinematics in Newly Walking Toddlers Does Not Depend Upon Postural Stability. Journal of Neurophysiology, 2005, 94, 754-763.	0.9	48
61	Review Article: Plasticity of Spinal Centers in Spinal Cord Injury Patients: New Concepts for Gait Evaluation and Training. Neurorehabilitation and Neural Repair, 2007, 21, 358-365.	1.4	48
62	Features of hand-foot crawling behavior in human adults. Journal of Neurophysiology, 2012, 107, 114-125.	0.9	48
63	Recovery of forward stepping in spinal cord injured patients does not transfer to untrained backward stepping. Experimental Brain Research, 2004, 157, 377-82.	0.7	46
64	Visual gravity cues in the interpretation of biological movements: neural correlates in humans. NeuroImage, 2015, 104, 221-230.	2.1	46
65	Distinct locomotor precursors in newborn babies. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 9604-9612.	3.3	45
66	Locomotor-Like Leg Movements Evoked by Rhythmic Arm Movements in Humans. PLoS ONE, 2014, 9, e90775.	1.1	45
67	Spinal motoneurons of the human newborn are highly synchronized during leg movements. Science Advances, 2020, 6, .	4.7	44
68	Control of Foot Trajectory in Walking Toddlers: Adaptation to Load Changes. Journal of Neurophysiology, 2007, 97, 2790-2801.	0.9	43
69	Kinematic Strategies in Newly Walking Toddlers Stepping Over Different Support Surfaces. Journal of Neurophysiology, 2010, 103, 1673-1684.	0.9	42
70	Spatial invariance in anticipatory orienting behaviour during human navigation. Neuroscience Letters, 2003, 339, 243-247.	1.0	41
71	Kinematic patterns while walking on a slope at different speeds. Journal of Applied Physiology, 2018, 125, 642-653.	1.2	41
72	Exoskeleton Walk Training in Paralyzed Individuals Benefits From Transcutaneous Lumbar Cord Tonic Electrical Stimulation. Frontiers in Neuroscience, 2020, 14, 416.	1.4	40

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73	Gait transitions in simulated reduced gravity. Journal of Applied Physiology, 2011, 110, 781-788.	1.2	38
74	Optimal walking speed following changes in limb geometry. Journal of Experimental Biology, 2011, 214, 2276-2282.	0.8	38
75	Plasticity and modular control of locomotor patterns in neurological disorders with motor deficits. Frontiers in Computational Neuroscience, 2013, 7, 123.	1.2	38
76	Human-Human Interaction Forces and Interlimb Coordination During Side-by-Side Walking With Hand Contact. Frontiers in Physiology, 2018, 9, 179.	1.3	38
77	Spinal motor outputs during step-to-step transitions of diverse human gaits. Frontiers in Human Neuroscience, 2014, 8, 305.	1.0	37
78	Spatial, not temporal cues drive predictive orienting movements during navigation. NeuroReport, 2000, 11, 775-778.	0.6	36
79	MINDWALKER: Going one step further with assistive lower limbs exoskeleton for SCI condition subjects. , 2012, , .		36
80	Adaptation as a Sensorial Profile in Trait Anxiety. Journal of Anxiety Disorders, 2000, 14, 583-601.	1.5	35
81	The influence of head rotation on human upright posture during balanced bilateral vibration. NeuroReport, 1995, 7, 137-140.	0.6	34
82	Human Locomotion under Reduced Gravity Conditions: Biomechanical and Neurophysiological Considerations. BioMed Research International, 2014, 2014, 1-12.	0.9	34
83	Pendular energy transduction within the step during human walking on slopes at different speeds. PLoS ONE, 2017, 12, e0186963.	1.1	33
84	Changes in the Limb Kinematics and Walking-Distance Estimation After Shank Elongation: Evidence for a Locomotor Body Schema?. Journal of Neurophysiology, 2009, 101, 1419-1429.	0.9	32
85	Smooth changes in the EMG patterns during gait transitions under body weight unloading. Journal of Neurophysiology, 2011, 106, 1525-1536.	0.9	32
86	Planar Covariation of Hindlimb and Forelimb Elevation Angles during Terrestrial and Aquatic Locomotion of Dogs. PLoS ONE, 2015, 10, e0133936.	1.1	32
87	Human Locomotion in Hypogravity: From Basic Research to Clinical Applications. Frontiers in Physiology, 2017, 8, 893.	1.3	31
88	Backward walking highlights gait asymmetries in children with cerebral palsy. Journal of Neurophysiology, 2018, 119, 1153-1165.	0.9	30
89	A kinematic synergy for terrestrial locomotion shared by mammals and birds. ELife, 2018, 7, .	2.8	29
90	Idiosyncratic control of the center of mass in expert climbers. Scandinavian Journal of Medicine and Science in Sports, 2011, 21, 688-699.	1.3	27

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91	A novel approach to mechanical foot stimulation during human locomotion under body weight support. Human Movement Science, 2011, 30, 352-367.	0.6	27
92	Locomotor coordination in patients with Hereditary Spastic Paraplegia. Journal of Electromyography and Kinesiology, 2019, 45, 61-69.	0.7	26
93	Emergence of Different Gaits in Infancy: Relationship Between Developing Neural Circuitries and Changing Biomechanics. Frontiers in Bioengineering and Biotechnology, 2020, 8, 473.	2.0	25
94	Effects of transcranial magnetic stimulation during voluntary and non-voluntary stepping movements in humans. Neuroscience Letters, 2014, 579, 64-69.	1.0	22
95	Changes of Gait Kinematics in Different Simulators of Reduced Gravity. Journal of Motor Behavior, 2013, 45, 495-505.	0.5	21
96	Assisted leg displacements and progressive loading by a tilt table combined with FES promote gait recovery in acute stroke. NeuroRehabilitation, 2011, 29, 67-77.	0.5	20
97	Trunk Orientation, Stability, and Quadrupedalism. Frontiers in Neurology, 2013, 4, 20.	1.1	20
98	Human cervical spinal cord circuitry activated by tonic input can generate rhythmic arm movements. Journal of Neurophysiology, 2016, 115, 1018-1030.	0.9	20
99	Differential changes in the spinal segmental locomotor output in Hereditary Spastic Paraplegia. Clinical Neurophysiology, 2018, 129, 516-525.	0.7	20
100	Maturation of the Locomotor Circuitry in Children With Cerebral Palsy. Frontiers in Bioengineering and Biotechnology, 2020, 8, 998.	2.0	20
101	Tonic and Rhythmic Spinal Activity Underlying Locomotion. Current Pharmaceutical Design, 2017, 23, 1753-1763.	0.9	20
102	Time course of gaze influences on postural responses to neck proprioceptive and galvanic vestibular stimulation in humans. Neuroscience Letters, 1999, 273, 121-124.	1.0	19
103	Lack of non-voluntary stepping responses in Parkinsonâ€™s disease. Neuroscience, 2013, 235, 96-108.	1.1	19
104	Biological oscillations for learning walking coordination: dynamic recurrent neural network functionally models physiological central pattern generator. Frontiers in Computational Neuroscience, 2013, 7, 70.	1.2	19
105	Coupling of upper and lower limb pattern generators during human crawling at different arm/leg speed combinations. Experimental Brain Research, 2013, 225, 217-225.	0.7	18
106	Foot Placement Characteristics and Plantar Pressure Distribution Patterns during Stepping on Ground in Neonates. Frontiers in Physiology, 2017, 8, 784.	1.3	18
107	Differential activation of lumbar and sacral motor pools during walking at different speeds and slopes. Journal of Neurophysiology, 2019, 122, 872-887.	0.9	18
108	Are effects of the symmetric and asymmetric tonic neck reflexes still visible in healthy adults?. Neuroscience Letters, 2013, 556, 89-92.	1.0	17

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109	Visual control of trunk translation and orientation during locomotion. Experimental Brain Research, 2014, 232, 1941-1951.	0.7	17
110	Early manifestation of armâ€“leg coordination during stepping on a surface in human neonates. Experimental Brain Research, 2018, 236, 1105-1115.	0.7	17
111	Age-related changes in the neuromuscular control of forward and backward locomotion. PLoS ONE, 2021, 16, e0246372.	1.1	17
112	Control of Leg Movements Driven by EMG Activity of Shoulder Muscles. Frontiers in Human Neuroscience, 2014, 8, 838.	1.0	15
113	Tapping into rhythm generation circuitry in humans during simulated weightlessness conditions. Frontiers in Systems Neuroscience, 2015, 9, 14.	1.2	15
114	Integration of somatosensory and vestibular inputs in perceiving the direction of passive whole-body motion. Cognitive Brain Research, 1997, 5, 323-327.	3.3	14
115	Drawing ellipses in water: evidence for dynamic constraints in the relation between velocity and path curvature. Experimental Brain Research, 2016, 234, 1649-1657.	0.7	14
116	Muscle Responses to Passive Joint Movements in Infants During the First Year of Life. Frontiers in Physiology, 2019, 10, 1158.	1.3	13
117	Gait assessment of the expectant mothers â€“ Systematic review. Gait and Posture, 2018, 62, 7-19.	0.6	12
118	Muscle Coordination and Locomotion in Humans. Current Pharmaceutical Design, 2017, 23, 1821-1833.	0.9	12
119	Progressive changes in walking kinematics throughout pregnancyâ€”A follow up study. Gait and Posture, 2019, 68, 518-524.	0.6	11
120	Locomotor patterns during obstacle avoidance in children with cerebral palsy. Journal of Neurophysiology, 2020, 124, 574-590.	0.9	10
121	Clinical Relevance of State-of-the-Art Analysis of Surface Electromyography in Cerebral Palsy. Frontiers in Neurology, 2020, 11, 583296.	1.1	10
122	Humans Running in Place on Water at Simulated Reduced Gravity. PLoS ONE, 2012, 7, e37300.	1.1	10
123	Pelvic movements during walking throughout gestation - the relationship between morphology and kinematic parameters. Clinical Biomechanics, 2020, 71, 146-151.	0.5	9
124	Development of Locomotor-Related Movements in Early Infancy. Frontiers in Cellular Neuroscience, 2020, 14, 623759.	1.8	9
125	Neuromuscular Age-Related Adjustment of Gait When Moving Upwards and Downwards. Frontiers in Human Neuroscience, 2021, 15, 749366.	1.0	8
126	Non-specific directional adaptation to asymmetrical visual-vestibular stimulation. Cognitive Brain Research, 1999, 7, 507-510.	3.3	7

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127	Muscle resistance to slow ramp weakly depends on activation level. Neuroscience, 1997, 80, 299-306.	1.1	6
128	Planar covariance of upper and lower limb elevation angles during handâ€“foot crawling in healthy young adults. Experimental Brain Research, 2017, 235, 3287-3294.	0.7	6
129	Rhythmic wrist movements facilitate the soleus H-reflex and non-voluntary air-stepping in humans. Neuroscience Letters, 2017, 638, 39-45.	1.0	5
130	Investigation of muscle tone in patients with Parkinsonâ€™s disease in unloading conditions. Human Physiology, 2014, 40, 125-131.	0.1	4
131	Increasing muscle activity correlations during spontaneous movements in the first six months of life. Neuroscience Letters, 2021, 756, 135957.	1.0	4
132	Lack of anticipatory gaze-orienting responses in patients with right brain damage. Neurology, 2000, 54, 1656-1661.	1.5	3
133	Postural control in the elephant. Journal of Experimental Biology, 2021, 224, .	0.8	3
134	Higher Responsiveness of Pattern Generation Circuitry to Sensory Stimulation in Healthy Humans Is Associated with a Larger Hoffmann Reflex. Biology, 2022, 11, 707.	1.3	3
135	Plasticity and Different Solutions to Reorganize Muscle Patterns during Gait. Biosystems and Biorobotics, 2013, , 1249-1252.	0.2	2
136	Characteristics of EMG activity in infants with movement disorders. Human Physiology, 2015, 41, 39-46.	0.1	2
137	Are we ready to move beyond the reductionist approach of classical synergy control?. Physics of Life Reviews, 2016, 17, 38-39.	1.5	2
138	Relation between Step-To-Step Transition Strategies and Walking Pattern in Older Adults. Applied Sciences (Switzerland), 2022, 12, 5055.	1.3	2
139	Eye Movements Induced by Changes in the Internal Representation of Body Posture. Human Physiology, 2005, 31, 554-558.	0.1	1
140	On biological principles of motor control. , 0, , .		0
141	Activation of walking by electrical stimulation in humans under the conditions of muscle unloading and its variations under the effect of afferent influences. Human Physiology, 2009, 35, 295-305.	0.1	0
142	Interaction forces and step synchronization during side-by-side walking with hand contact. Gait and Posture, 2017, 57, 27.	0.6	0
143	Synergistic influences of sensory and central stimuli on non-voluntary rhythmic arm movements. Human Movement Science, 2019, 64, 230-239.	0.6	0
144	Adjustments in the Range of Angular Motion during Walking after Amputation of the Toes: A Case Report. Symmetry, 2021, 13, 2065.	1.1	0