Volker Dietz

List of Publications by Year
in descending order

120 papers	9,978 citations	36303 51 h-index	34986 98 g-index
130 all docs	130 docs citations	130 times ranked	6997 citing authors

#	Article	IF	Citations
1	Spastic movement disorder: impaired reflex function and altered muscle mechanics. Lancet Neurology, The, 2007, 6, 725-733.	10.2	505
2	Three-dimensional, task-specific robot therapy of the arm after stroke: a multicentre, parallel-group randomised trial. Lancet Neurology, The, 2014, 13, 159-166.	10.2	473
3	Effectiveness of automated locomotor training in patients with chronic incomplete spinal cord injury: A multicenter trial. Archives of Physical Medicine and Rehabilitation, 2005, 86, 672-680.	0.9	428
4	Locomotor activity in spinal man: significance of afferent input from joint and load receptors. Brain, 2002, 125, 2626-2634.	7.6	408
5	Proprioception and locomotor disorders. Nature Reviews Neuroscience, 2002, 3, 781-790.	10.2	408
6	Assessing walking ability in subjects with spinal cord injury: Validity and reliability of 3 walking tests. Archives of Physical Medicine and Rehabilitation, 2005, 86, 190-196.	0.9	390
7	Do human bipeds use quadrupedal coordination?. Trends in Neurosciences, 2002, 25, 462-467.	8.6	375
8	Validation of the Weight-Drop Contusion Model in Rats: A Comparative Study of Human Spinal Cord Injury. Journal of Neurotrauma, 2000, 17, 1-17.	3.4	319
9	Recovery from a Spinal Cord Injury: Significance of Compensation, Neural Plasticity, and Repair. Journal of Neurotrauma, 2008, 25, 677-685.	3.4	307
10	Locomotor Recovery in Spinal Cord-Injured Rats Treated with an Antibody Neutralizing the Myelin-Associated Neurite Growth Inhibitor Nogo-A. Journal of Neuroscience, 2001, 21, 3665-3673.	3.6	302
11	Significance of load receptor input during locomotion: a review. Gait and Posture, 2000, 11, 102-110.	1.4	290
12	Efficient testing of motor function in spinal cord injured rats. Brain Research, 2000, 883, 165-177.	2.2	275
13	Rehabilitation robots for the treatment of sensorimotor deficits: a neurophysiological perspective. Journal of NeuroEngineering and Rehabilitation, 2018, 15, 46.	4.6	240
14	Restoration of sensorimotor functions after spinal cord injury. Brain, 2014, 137, 654-667.	7.6	218
15	Pre-innervation and stretch responses of triceps bracchii in man falling with and without visual control. Brain Research, 1978, 142, 576-579.	2.2	203
16	Ambulatory capacity in spinal cord injury: Significance of somatosensory evoked potentials and ASIA protocol in predicting outcome. Archives of Physical Medicine and Rehabilitation, 1997, 78, 39-43.	0.9	191
17	Functional outcome following spinal cord injury: Significance of motor-evoked potentials and ASIA scores. Archives of Physical Medicine and Rehabilitation, 1998, 79, 81-86.	0.9	187
18	Neurological aspects of spinal-cord repair: promises and challenges. Lancet Neurology, The, 2006, 5, 688-694.	10.2	169

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19	Arm to leg coordination in humans during walking, creeping and swimming activities. Experimental Brain Research, 2001, 141, 375-379.	1.5	168
20	Contribution of Feedback and Feedforward Strategies to Locomotor Adaptations. Journal of Neurophysiology, 2006, 95, 766-773.	1.8	168
21	Treadmill training in incomplete spinal cord injured rats. Behavioural Brain Research, 2000, 115, 107-113.	2.2	117
22	Chronic Cervical Spinal Cord Injury: DTI Correlates with Clinical and Electrophysiological Measures. Journal of Neurotrauma, 2012, 29, 1556-1566.	3.4	116
23	The physiological basis of neurorehabilitation - locomotor training after spinal cord injury. Journal of NeuroEngineering and Rehabilitation, 2013, 10, 5.	4.6	110
24	Changes in spinal reflex and locomotor activity after a complete spinal cord injury: a common mechanism?. Brain, 2009, 132, 2196-2205.	7.6	108
25	Changes of tibia bone properties after spinal cord injury: Effects of early intervention. Archives of Physical Medicine and Rehabilitation, 1999, 80, 214-220.	0.9	103
26	Undirected compensatory plasticity contributes to neuronal dysfunction after severe spinal cord injury. Brain, 2013, 136, 3347-3361.	7.6	102
27	Degradation of neuronal function following a spinal cord injury: mechanisms and countermeasures. Brain, 2004, 127, 2221-2231.	7.6	97
28	Improving axonal growth and functional recovery after experimental spinal cord injury by neutralizing myelin associated inhibitors. Brain Research Reviews, 2001, 36, 204-212.	9.0	96
29	Behavior of spinal neurons deprived of supraspinal input. Nature Reviews Neurology, 2010, 6, 167-174.	10.1	94
30	Rehabilitation of locomotion after spinal cord injury. Restorative Neurology and Neuroscience, 2010, 28, 123-134.	0.7	93
31	Computerized Visual Feedback: An Adjunct to Robotic-Assisted Gait Training. Physical Therapy, 2008, 88, 1135-1145.	2.4	92
32	Traumatic cervical spinal cord injury: Relation between somatosensory evoked potentials, neurological deficit, and hand function. Archives of Physical Medicine and Rehabilitation, 1996, 77, 48-53.	0.9	88
33	Assessment of Walking Speed and Distance in Subjects With an Incomplete Spinal Cord Injury. Neurorehabilitation and Neural Repair, 2007, 21, 295-301.	2.9	86
34	Clinical Algorithm for Improved Prediction of Ambulation and Patient Stratification after Incomplete Spinal Cord Injury. Journal of Neurotrauma, 2010, 27, 241-252.	3.4	85
35	Impaired modulation of quadriceps tendon jerk reflex during spastic gait: differences between spinal and cerebral lesions. Brain, 1999, 122, 567-579.	7.6	83
36	Swing Phase Resistance Enhances Flexor Muscle Activity During Treadmill Locomotion in Incomplete Spinal Cord Injury. Neurorehabilitation and Neural Repair, 2008, 22, 438-446.	2.9	79

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37	Neuropathic pain in spinal cord injury: significance of clinical and electrophysiological measures. European Journal of Neuroscience, 2009, 30, 91-99.	2.6	72
38	Significance of sympathetic skin response in the assessment of autonomic failure in patients with spinal cord injury. Journal of the Autonomic Nervous System, 1996, 61, 175-180.	1.9	71
39	Changes in Activity After a Complete Spinal Cord Injury as Measured by the Spinal Cord Independence Measure II (SCIM II). Neurorehabilitation and Neural Repair, 2008, 22, 145-153.	2.9	71
40	Muscle Force and Gait Performance: Relationships After Spinal Cord Injury. Archives of Physical Medicine and Rehabilitation, 2006, 87, 1218-1222.	0.9	69
41	The amplitude of lower leg motor evoked potentials is a reliable measure when controlled for torque and motor task. Journal of Neurology, 2007, 254, 1089-1098.	3.6	68
42	Quadrupedal coordination of bipedal gait: implications for movement disorders. Journal of Neurology, 2011, 258, 1406-1412.	3.6	66
43	Human Bipeds Use Quadrupedal Coordination during Locomotion. Annals of the New York Academy of Sciences, 2009, 1164, 97-103.	3.8	64
44	Longitudinal changes in bone in men with spinal cord injury. Clinical Rehabilitation, 2000, 14, 145-152.	2.2	60
45	Locomotion in Patients With Spinal Cord Injuries. Physical Therapy, 1997, 77, 508-516.	2.4	59
46	Evidence for a Load Receptor Contribution to the Control of Posture and Locomotion. Neuroscience and Biobehavioral Reviews, 1998, 22, 495-499.	6.1	58
47	Brain activity during stepping: A novel MRI-compatible device. Journal of Neuroscience Methods, 2011, 201, 124-130.	2.5	58
48	Spasticity. Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn, 2012, 109, 197-211.	1.8	58
49	Spinal Cord Injury. Neurorehabilitation and Neural Repair, 2012, 26, 939-948.	2.9	57
50	Recovery of bladder function in patients with acute spinal cord injury: significance of ASIA scores and somatosensory evoked potentials. Spinal Cord, 1997, 35, 368-373.	1.9	56
51	Body weight supported gait training: From laboratory to clinical setting. Brain Research Bulletin, 2008, 76, 459-463.	3.0	56
52	Interaction between central programs and afferent input in the control of posture and locomotion. Journal of Biomechanics, 1996, 29, 841-844.	2.1	55
53	Difficulty of Elderly SCI Subjects to Translate Motor Recoveryâ€”â€œBody Functionâ€â€”into Daily Living Activities. Journal of Neurotrauma, 2009, 26, 2037-2044.	3.4	55
54	Stability criterion for controlling standing in able-bodied subjects. Journal of Biomechanics, 2000, 33, 1359-1368.	2.1	54

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55	Preparation and performance of obstacle steps: interaction between brain and spinal neuronal activity. European Journal of Neuroscience, 2011, 33, 338-348.	2.6	52
56	Neurographic assessment of intramedullary motoneurone lesions in cervical spinal cord injury: consequences for hand function. Spinal Cord, 1996, 34, 326-332.	1.9	50
57	Neuronal plasticity after a human spinal cord injury: Positive and negative effects. Experimental Neurology, 2012, 235, 110-115.	4.1	49
58	Neural Coupling of Cooperative Hand Movements: A Reflex and fMRI Study. Cerebral Cortex, 2015, 25, 948-958.	2.9	48
59	Nogoâ€A antibodies and training reduce muscle spasms in spinal cordâ€injured rats. Annals of Neurology, 2010, 68, 48-57.	5.3	45
60	Electromyographic activity associated with spontaneous functional recovery after spinal cord injury in rats. European Journal of Neuroscience, 2002, 16, 249-258.	2.6	44
61	Walking During Daily Life Can Be Validly and Responsively Assessed in Subjects With a Spinal Cord Injury. Neurorehabilitation and Neural Repair, 2009, 23, 117-124.	2.9	44
62	Postural responses to combinations of head and body displacements: vestibular-somatosensory interactions. Experimental Brain Research, 2001, 141, 410-414.	1.5	39
63	Locomotion in stroke subjects: interactions between unaffected and affected sides. Brain, 2011, 134, 721-731.	7.6	39
64	Phase-dependent modulation of short latency cutaneous reflexes during walking in man. Brain Research, 2005, 1031, 268-275.	2.2	37
65	Repair of the Injured Spinal Cord. Neurodegenerative Diseases, 2007, 4, 51-56.	1.4	37
66	Locomotion in Parkinson's disease: neuronal coupling of upper and lower limbs. Brain, 2008, 131, 3421-3431.	7.6	37
67	Tail spasms in rat spinal cord injury: Changes in interneuronal connectivity. Experimental Neurology, 2012, 236, 179-189.	4.1	37
68	Analysis of the electrical muscle activity during maximal contraction and the influence of ischaemia. Journal of the Neurological Sciences, 1978, 37, 187-197.	0.6	32
69	Arm movements can increase leg muscle activity during submaximal recumbent stepping in neurologically intact individuals. Journal of Applied Physiology, 2013, 115, 34-42.	2.5	32
70	From the Rodent Spinal Cord Injury Model to Human Application: Promises and Challenges. Journal of Neurotrauma, 2017, 34, 1826-1830.	3.4	30
71	Impaired facilitation of motor evoked potentials in incomplete spinal cord injury. Journal of Neurology, 2006, 253, 51-57.	3.6	29
72	Obstacle stepping in patients with Parkinsonâ€™s disease. Journal of Neurology, 2009, 256, 457-463.	3.6	29

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73	In vivo evidence of remote neural degeneration in the lumbar enlargement after cervical injury. Neurology, 2019, 92, e1367-e1377.	1.1	29
74	Sepiapterin reduces postischemic injury in the rat heart. Pflugers Archiv European Journal of Physiology, 2003, 447, 1-7.	2.8	28
75	Transfer of Motor Performance in an Obstacle Avoidance Task to Different Walking Conditions. Journal of Neurophysiology, 2004, 92, 2010-2016.	1.8	28
76	Spinal Reflex Activity. Neurorehabilitation and Neural Repair, 2012, 26, 188-196.	2.9	28
77	Vertical perturbations of human gait: organisation and adaptation of leg muscle responses. Experimental Brain Research, 2008, 186, 123-130.	1.5	27
78	Cooperative hand movements in post-stroke subjects: Neural reorganization. Clinical Neurophysiology, 2016, 127, 748-754.	1.5	27
79	Recovery of Sensorimotor Function and Activities of Daily Living after Cervical Spinal Cord Injury: The Influence of Age. Journal of Neurotrauma, 2015, 32, 194-199.	3.4	26
80	Differences in the EMG pattern of leg muscle activation during locomotion in Parkinson's disease. Functional Neurology, 2003, 18, 165-70.	1.3	24
81	Controversial treatments for spinal-cord injuries. Lancet, The, 2005, 365, 841.	13.7	23
82	Effectiveness of Automated Locomotor Training in Patients with Acute Incomplete Spinal Cord Injury: A Randomized, Controlled, Multicenter Trial. Journal of Neurotrauma, 2017, 34, 1891-1896.	3.4	23
83	Learning a high-precision locomotor task in patients with Parkinson's disease. Movement Disorders, 2006, 21, 406-411.	3.9	21
84	Single joint perturbation during gait: Preserved compensatory response pattern in spinal cord injured subjects. Clinical Neurophysiology, 2007, 118, 1607-1616.	1.5	21
85	Obstacle avoidance during human walking: effects of biomechanical constraints on performance11No commercial party having a direct financial interest in the results of the research supporting this article has or will confer a benefit on the author(s) or on any organization with which the author(s) is/are associated.. Archives of Physical Medicine and Rehabilitation, 2004, 85, 972-979.	0.9	20
86	Control of functional movements in healthy and post-stroke subjects: Role of neural interlimb coupling. Clinical Neurophysiology, 2016, 127, 2286-2293.	1.5	19
87	SHORT COMMUNICATION: Levodopa Therapy in Incomplete Spinal Cord Injury. Journal of Neurotrauma, 2008, 25, 1303-1307.	3.4	18
88	Good clinical practice in neurorehabilitation. Lancet Neurology, The, 2006, 5, 377-378.	10.2	17
89	Ready for human spinal cord repair?. Brain, 2008, 131, 2240-2242.	7.6	17
90	Task-specific role of ipsilateral pathways. NeuroReport, 2014, 25, 1429-1432.	1.2	16

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91	Neuronal Plasticity After Spinal Cord Injury: Significance for Present and Future Treatments. Journal of Spinal Cord Medicine, 2006, 29, 481-488.	1.4	13
92	The occurrence of the Babinski sign in complete spinal cord injury. Journal of Neurology, 2010, 257, 38-43.	3.6	13
93	Gaze strategies for avoiding obstacles: Differences between young and elderly subjects. Gait and Posture, 2011, 34, 340-346.	1.4	13
94	Obstacle avoidance locomotor tasks: adaptation, memory and skill transfer. European Journal of Neuroscience, 2012, 35, 1613-1621.	2.6	13
95	Spinal neuronal dysfunction after stroke. Experimental Neurology, 2012, 234, 153-160.	4.1	11
96	Neural coupling of cooperative hand movements after stroke: role of ipsilateral afference. Annals of Clinical and Translational Neurology, 2016, 3, 884-888.	3.7	10
97	Spasticity-spastic movement disorder. Spinal Cord, 2008, 46, 588-588.	1.9	9
98	Translating preclinical approaches into human application. Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn, 2012, 109, 399-409.	1.8	9
99	SSEP analysis in surgery of idiopathic scoliosis: the influence of spine deformity and surgical approach. European Spine Journal, 2003, 12, 117-123.	2.2	8
100	Neural coordination of bilateral power and precision finger movements. European Journal of Neuroscience, 2021, 54, 8249-8255.	2.6	6
101	Improving outcome of sensorimotor functions after traumatic spinal cord injury. F1000Research, 2016, 5, 1018.	1.6	5
102	Neuroplastic Changes in Older Adults Performing Cooperative Hand Movements. Frontiers in Human Neuroscience, 2018, 12, 488.	2.0	5
103	Clinical Aspects for the Application of Robotics in Locomotor Neurorehabilitation. , 2016, , 209-222.		4
104	Differential neural coordination of bilateral hand and finger movements. Physiological Reports, 2020, 8, e14393.	1.7	4
105	Coordination of bilateral synchronous and asynchronous hand movements. Neuroscience Letters, 2020, 720, 134757.	2.1	4
106	Cooperative hand movements. NeuroReport, 2018, 29, 650-654.	1.2	3
107	Missed pediatric spinal injuriesâ€"neurological consequences?. Nature Reviews Neurology, 2012, 8, 181-182.	10.1	2
108	Clinical Aspects for the Application of Robotics in Neurorehabilitation. , 2012, , 291-301.		2

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109	Recent advances in spinal cord neurology. Journal of Neurology, 2010, 257, 1770-1773.	3.6	1
110	Cooperative hand movements in tetraplegic spinal cord injury patients: Preserved neural coupling. Clinical Neurophysiology, 2018, 129, 2059-2064.	1.5	1
111	Restoration of motor function after CNS damage: is there a potential beyond spontaneous recovery?. Brain Communications, 2021, 3, fcab171.	3.3	1
112	Rehabilitation-Dependent Neural Plasticity After Spinal Cord Injury. , 2016, , 439-456.		1
113	Performance of Functional Arm and Leg Movements Depends on Neural Coupling. Biosystems and Biorobotics, 2019, , 271-272.	0.3	1
114	Learning in the Damaged Brain/Spinal Cord: Neuroplasticity. , 2016, , 3-17.		1
115	Chances and limits of locomotor training after damage to the central nervous system. , 0, , 305-313.		0
116	Gait disorders and rehabilitation. , 0, , 343-354.		0
117	Effect of Locomotor Training on Exhaustion of Leg Muscle Activity in Chronic Complete Spinal Cord Injury. Journal of Neurotrauma, 2017, 34, 2375-2378.	3.4	0
118	Learning in the Damaged Brain/Spinal Cord: Neuroplasticity. , 2012, , 57-69.		0
119	Spasticity. , 2012, , 339-356.		0
120	Anwendung von Robotern in der Neurorehabilitation. , 2015, , 59-66.		0