Hermano Igo Krebs

List of Publications by Year
in descending order

74 papers	3,911 citations	236612 25 h-index	223531 46 g-index
74 all docs	74 docs citations	74 times ranked	3147 citing authors

#	Article	IF	Citations
1	Multivariable passive ankle impedance in stroke patients: A preliminary study. Journal of Biomechanics, 2022, 130, 110829.	0.9	2
2	Work in the Time of Covid-19: Actuators and Sensors for Rehabilitation Robotics. IEEJ Journal of Industry Applications, 2022, 11, 256-265.	0.9	7
3	Macro-Mini Linear Actuator Using Electrorheological-Fluid Brake for Impedance Modulation in Physical Humanâ€“Robot Interaction. IEEE Robotics and Automation Letters, 2022, 7, 2945-2952.	3.3	18
4	Sleep deprivation affects gait control. Scientific Reports, 2021, 11, 21104.	1.6	10
5	Real-Time Identification of Gait Events in Impaired Subjects Using a Single-IMU Foot-Mounted Device. IEEE Sensors Journal, 2020, 20, 2616-2624.	2.4	37
6	Electrical Stimulation to Modulate Human Ankle Impedance: Effects of Intervention on Balance Control in Quiet and Perturbed Stances. , 2020, , .		3
7	Human-Robot Interaction: Controller Design and Stability. , 2020, , .		10
8	Robotic knee orthosis to prevent falling during a standing up assistance. , 2020, , .		1
9	Equilibrium point-based control of muscle-driven anthropomorphic legs reveals modularity of human motor control during pedalling. Advanced Robotics, 2020, 34, 328-342.	1.1	6
10	Robot-Assisted Therapy in Upper Extremity Hemiparesis: Overview of an Evidence-Based Approach. Frontiers in Neurology, 2019, 10, 412.	1.1	103
11	Effects of supraspinal feedback on human gait: rhythmic auditory distortion. Journal of NeuroEngineering and Rehabilitation, 2019, 16, 159.	2.4	6
12	A Soft Pneumatic Actuator as a Haptic Wearable Device for Upper Limb Amputees: Toward a Soft Robotic Liner. IEEE Robotics and Automation Letters, 2019, 4, 17-24.	3.3	36
13	Robotic Arm Rehabilitation in Chronic Stroke Patients With Aphasia May Promote Speech and Language Recovery (but Effect Is Not Enhanced by Supplementary tDCS). Frontiers in Neurology, 2018, 9, 853.	1.1	9
14	An Electrorheological Fluid Actuator for Rehabilitation Robotics. IEEE/ASME Transactions on Mechatronics, 2018, 23, 2156-2167.	3.7	33
15	Twenty + years of robotics for upper-extremity rehabilitation following a stroke. , 2018, , 175-192.		11
16	Improved grasp function with transcranial direct current stimulation in chronic spinal cord injury. NeuroRehabilitation, 2017, 41, 51-59.	0.5	30
17	Intensive seated robotic training of the ankle in patients with chronic stroke differentially improves gait. NeuroRehabilitation, 2017, 41, 61-68.	0.5	15
18	Pediatric robotic rehabilitation: Current knowledge and future trends in treating children with sensorimotor impairments. NeuroRehabilitation, 2017, 41, 69-76.	0.5	16

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19	On a unique fellow and a good friend: Celebrating the life of Stefan Hesse and his contributions to rehabilitation robotics, 1960â€"2016. NeuroRehabilitation, 2017, 41, 1-3.	0.5	6
20	MIT-Skywalker: considerations on the Design of a Body Weight Support System. Journal of NeuroEngineering and Rehabilitation, 2017, 14, 88.	2.4	22
21	Robotic biomarkers in RETT Syndrome: Evaluating stiffness. , 2016, , .		5
22	Equilibrium-point-based synergies that encode coordinates in task space: A practical method for translating functional synergies from human to musculoskeletal robot arm. , 2016, , .		1
23	Summary of Human Ankle Mechanical Impedance During Walking. IEEE Journal of Translational Engineering in Health and Medicine, 2016, 4, 1-7.	2.2	109
24	Headset design to accommodate four-pole galvanic vestibular stimulation. , 2016, , .		1
25	The effects of galvanic vestibular stimulation and vision on perception of ground inclination. , 2016, , .		0
26	Hand rehabilitation using Soft-Robotics. , 2016, , .		9
27	Pediatric Anklebot: Pilot clinical trial. , 2016, , .		3
28	Beyond Human or Robot Administered Treadmill Training. , 2016, , 409-433.		3
29	On the Origin of Muscle Synergies: Invariant Balance in the Co-activation of Agonist and Antagonist Muscle Pairs. Frontiers in Bioengineering and Biotechnology, 2015, 3, 192.	2.0	26
30	Cycle variance: proposing a novel ensemble-based approach to assess the gait rhythmicity on the MIT-Skywalker. , 2015, , .		2
31	Analysis of the anklebot training as a method for reducing lower-limb paretic impairment a case study in electromyography. , 2015, , .		1
32	Robot-Aided Neurorehabilitation: A Pediatric Robot for Ankle Rehabilitation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2015, 23, 1056-1067.	2.7	76
33	Interlimb coordination in body-weight supported locomotion: A pilot study. Journal of Biomechanics, 2015, 48, 2837-2843.	0.9	10
34	Robotics: A Rehabilitation Modality. Current Physical Medicine and Rehabilitation Reports, 2015, 3, 243-247.	0.3	11
35	Robotic Therapy and the Paradox of the Diminishing Number of Degrees of Freedom. Physical Medicine and Rehabilitation Clinics of North America, 2015, 26, 691-702.	0.7	11
36	A Comparative Analysis of Speed Profile Models for Ankle Pointing Movements: Evidence that Lower and Upper Extremity Discrete Movements are Controlled by a Single Invariant Strategy. Frontiers in Human Neuroscience, 2014, 8, 962.	1.0	16

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37	Multivariable Dynamic Ankle Mechanical Impedance With Relaxed Muscles. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2014, 22, 1104-1114.	2.7	102
38	Reaction time in ankle movements: a diffusion model analysis. Experimental Brain Research, 2014, 232, 3475-3488.	0.7	12
39	Pointing with the ankle: the speed-accuracy trade-off. Experimental Brain Research, 2014, 232, 647-657.	0.7	20
40	Modular Ankle Robotics Training in Early Subacute Stroke. Neurorehabilitation and Neural Repair, 2014, 28, 678-687.	1.4	42
41	MIT-Skywalker: A novel environment for neural gait rehabilitation. , 2014, , .		13
42	Modeling reaction time in the ankle. , 2014, , .		4
43	Experimental assessment of gait with rhythmic auditory perturbations. , 2014, , .		1
44	Multivariable Dynamic Ankle Mechanical Impedance With Active Muscles. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2014, 22, 971-981.	2.7	139
45	Multi-directional Dynamic Mechanical Impedance of the Human Ankle; A Key to Anthropomorphism in Lower Extremity Assistive Robots. Trends in Augmentation of Human Performance, 2014, , 157-178.	0.4	7
46	EMG-based pattern recognition approach in post stroke robot-aided rehabilitation: a feasibility study. Journal of NeuroEngineering and Rehabilitation, 2013, 10, 75.	2.4	130
47	A Comparative Analysis of Speed Profile Models for Wrist Pointing Movements. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2013, 21, 756-766.	2.7	16
48	Feasibility Study of a Wearable Exoskeleton for Children: Is the Gait Altered by Adding Masses on Lower Limbs?. PLoS ONE, 2013, 8, e73139.	1.1	52
49	Assist-as-needed in lower extremity robotic therapy for children with cerebral palsy. , 2012, , .		29
50	Serious Games for the Pediatric Anklebot. , 2012, , .		19
51	Linear Time-Varying Identification of Ankle Mechanical Impedance During Human Walking. , 2012, , .		13
52	A novel characterization method to study multivariable joint mechanical impedance. , 2012, , .		8
53	Beyond Human or Robot Administered Treadmill Training. , 2012, , 233-252.		1
54	Static ankle impedance in stroke and multiple sclerosis: A feasibility study. , 2011, 2011, 8523-6.		14

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55	Feasibility of entrainment with ankle mechanical perturbation to treat locomotor deficit of neurologically impaired patients. , 2011, 2011, 7474-7.		9
56	Ankle Training With a Robotic Device Improves Hemiparetic Gait After a Stroke. Neurorehabilitation and Neural Repair, 2011, 25, 369-377.	1.4	97
57	Upper limb robot-assisted therapy: A new option for children with hemiplegia1. Technology and Disability, 2010, 22, 193-198.	0.3	13
58	Interpretation of the Directional Properties of Voluntarily Modulated Human Ankle Mechanical Impedance. , 2010, , .		3
59	Kinematic Robot-Based Evaluation Scales and Clinical Counterparts to Measure Upper Limb Motor Performance in Patients With Chronic Stroke. Neurorehabilitation and Neural Repair, 2010, 24, 62-69.	1.4	234
60	On the control of the MIT-Skywalker. , 2010, 2010, 1287-91.		7
61	The Multi-Variable Torque-Displacement Relation at the Ankle. , 2009, , .		8
62	A working model of stroke recovery from rehabilitation robotics practitioners. Journal of NeuroEngineering and Rehabilitation, 2009, 6, 6.	2.4	81
63	Robot-Aided Neurorehabilitation: A Novel Robot for Ankle Rehabilitation. IEEE Transactions on Robotics, 2009, 25, 569-582.	7.3	430
64	MIT-Skywalker. , 2009, , .		24
65	Directional Variation of Active and Passive Ankle Static Impedance. , 2009, , .		9
66	Robotic Therapy and Botulinum Toxin Type A. American Journal of Physical Medicine and Rehabilitation, 2008, 87, 1022-1026.	0.7	25
67	A comparison of functional and impairment-based robotic training in severe to moderate chronic stroke: A pilot study. NeuroRehabilitation, 2008, 23, 81-87.	0.5	107
68	A comparison of functional and impairment-based robotic training in severe to moderate chronic stroke: a pilot study. NeuroRehabilitation, 2008, 23, 81-7.	0.5	53
69	Stochastic Estimation of Arm Mechanical Impedance During Robotic Stroke Rehabilitation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2007, 15, 94-103.	2.7	74
70	Robot-Aided Neurorehabilitation: A Robot for Wrist Rehabilitation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2007, 15, 327-335.	2.7	447
71	Therapeutic Robotics: A Technology Push. Proceedings of the IEEE, 2006, 94, 1727-1738.	16.4	100
72	Comparison of Two Techniques of Robot-Aided Upper Limb Exercise Training After Stroke. American Journal of Physical Medicine and Rehabilitation, 2004, 83, 720-728.	0.7	164

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73	Submovements Grow Larger, Fewer, and More Blended during Stroke Recovery. Motor Control, 2004, 8, 472-483.	0.3	131
74	Movement Smoothness Changes during Stroke Recovery. Journal of Neuroscience, 2002, 22, 8297-8304.	1.7	608