Herman Van Der Kooij

List of Publications by Year in Descending Order

189 papers	**6,688** citations	**42** h-index	**77** g-index
205 ext. papers	**7,878** ext. citations	**3** avg, IF	**5.91** L-index

#	Paper	IF	Citations
189	Benefits and Potential of a Neuromuscular Controller for Exoskeleton-Assisted Walking. *Biosystems and Biorobotics*, **2022**, 281-285	0.2	1
188	A Transparent Lower Limb Perturbator to Investigate Joint Impedance During Gait. *Biosystems and Biorobotics*, **2022**, 525-529	0.2	
187	Cooperative ankle-exoskeleton control can reduce effort to recover balance after unexpected disturbances during walking.. *Journal of NeuroEngineering and Rehabilitation*, **2022**, 19, 21	5.3	2
186	Neuromechanical Model-Based Adaptive Control of Bilateral Ankle Exoskeletons: Biological Joint Torque and Electromyogram Reduction Across Walking Conditions. *IEEE Transactions on Robotics*, **2022**, 1-15	6.5	3
185	Recovery from sagittal-plane whole body angular momentum perturbations during walking. *Journal of Biomechanics*, **2022**, 111169	2.9	0
184	Whole Body Center of Mass Feedback in a Reflex-Based Neuromuscular Model Predicts Ankle Strategy During Perturbed Walking. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2021**, PP,	4.8	1
183	Soft, Wearable, and Pleated Pneumatic Interference Actuator Provides Knee Extension Torque for Sit-to-Stand. *Soft Robotics*, **2021**, 8, 28-43	9.2	6
182	A New Shoulder Orthosis to Dynamically Support Glenohumeral Subluxation. *IEEE Transactions on Biomedical Engineering*, **2021**, 68, 1142-1153	5	
181	Symbitron Exoskeleton: Design, Control, and Evaluation of a Modular Exoskeleton for Incomplete and Complete Spinal Cord Injured Individuals. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2021**, 29, 330-339	4.8	13
180	. *IEEE Transactions on Medical Robotics and Bionics*, **2021**, 3, 156-165	3.1	3
179	Neurophysiological validation of simultaneous intrinsic and reflexive joint impedance estimates. *Journal of NeuroEngineering and Rehabilitation*, **2021**, 18, 36	5.3	0
178	Centre of pressure modulations in double support effectively counteract anteroposterior perturbations during gait. *Journal of Biomechanics*, **2021**, 126, 110637	2.9	0
177	Disentangling acceleration-, velocity-, and duration-dependency of the short- and medium-latency stretch reflexes in the ankle plantarflexors. *Journal of Neurophysiology*, **2021**, 126, 1015-1029	3.2	0
176	Myoelectric model-based control of a bi-lateral robotic ankle exoskeleton during even ground locomotion * **2020**,		1
175	An Improved Force Controller With Low and Passive Apparent Impedance for Series Elastic Actuators. *IEEE/ASME Transactions on Mechatronics*, **2020**, 25, 1220-1230	5.5	14
174	Position-Cortical Coherence as a Marker of Afferent Pathway Integrity Early Poststroke: A Prospective Cohort Study. *Neurorehabilitation and Neural Repair*, **2020**, 34, 344-359	4.7	5
173	Can Momentum-Based Control Predict Human Balance Recovery Strategies?. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2020**, 28, 2015-2024	4.8	3

172	Predicting reactive stepping in response to perturbations by using a classification approach. *Journal of NeuroEngineering and Rehabilitation*, **2020**, 17, 84	5.3	
171	A Clustering-Based Approach to Identify Joint Impedance During Walking. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2020**, 28, 1808-1816	4.8	5
170	Automatic versus manual tuning of robot-assisted gait training in people with neurological disorders. *Journal of NeuroEngineering and Rehabilitation*, **2020**, 17, 9	5.3	9
169	Neuromuscular Controller Embedded in a Powered Ankle Exoskeleton: Effects on Gait, Clinical Features and Subjective Perspective of Incomplete Spinal Cord Injured Subjects. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2020**, 28, 1157-1167	4.8	16
168	Effects of selectively assisting impaired subtasks of walking in chronic stroke survivors. *Journal of NeuroEngineering and Rehabilitation*, **2020**, 17, 143	5.3	0
167	Haptic human-human interaction does not improve individual visuomotor adaptation. *Scientific Reports*, **2020**, 10, 19902	4.9	3
166	Estimating ankle torque and dynamics of the stabilizing mechanism: No need for horizontal ground reaction forces. *Journal of Biomechanics*, **2020**, 106, 109813	2.9	5
165	Gait training with Achilles ankle exoskeleton in chronic incomplete spinal cord injury subjects. *Journal of Biological Regulators and Homeostatic Agents*, **2020**, 34, 147-164. Technology in Medicine	0.7	2
164	Ankle muscle responses during perturbed walking with blocked ankle joints. *Journal of Neurophysiology*, **2019**, 121, 1711-1717	3.2	4
163	Are Ankle Muscle Responses in Balance Recovery Hard-Wired?. *Biosystems and Biorobotics*, **2019**, 287-290	0.2	
162	The SoftPro Project: Synergy-Based Open-Source Technologies for Prosthetics and Rehabilitation. *Biosystems and Biorobotics*, **2019**, 370-374	0.2	2
161	Walking Assistance of Subjects with Spinal Cord Injury with an Ankle Exoskeleton and Neuromuscular Controller. *Biosystems and Biorobotics*, **2019**, 304-308	0.2	
160	A Computational Framework for Muscle-Level Control of Bi-lateral Robotic Ankle Exoskeletons. *Biosystems and Biorobotics*, **2019**, 325-328	0.2	
159	Pushing the Limits: A Novel Tape Spring Pushing Mechanism to be Used in a Hand Orthosis. *Biosystems and Biorobotics*, **2019**, 475-479	0.2	1
158	Training Balance Recovery in People with Incomplete SCI Wearing a Wearable Exoskeleton. *Biosystems and Biorobotics*, **2019**, 334-338	0.2	2
157	Guest Editorial A Perspective of BioRobotics From the IEEE RAS/EMBS BioRob 2018 Conference. *IEEE Transactions on Medical Robotics and Bionics*, **2019**, 1, 4-5	3.1	
156	Effect of Amplitude and Number of Repetitions of the Perturbation on System Identification of Human Balance Control During Stance. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2019**, 27, 2336-2343	4.8	4
155	Mechanics of very slow human walking. *Scientific Reports*, **2019**, 9, 18079	4.9	19

154	Realizing Soft High Torque Actuators for Complete Assistance Wearable Robots. *Biosystems and Biorobotics*, **2019**, 39-43	0.2	4
153	Reduced center of pressure modulation elicits foot placement adjustments, but no additional trunk motion during anteroposterior-perturbed walking. *Journal of Biomechanics*, **2018**, 68, 93-98	2.9	15
152	The Reliance on Vestibular Information During Standing Balance Control Decreases With Severity of Vestibular Dysfunction. *Frontiers in Neurology*, **2018**, 9, 371	4.1	6
151	Changes in H-Reflex Recruitment After Trans-Spinal Direct Current Stimulation With Multiple Electrode Configurations. *Frontiers in Neuroscience*, **2018**, 12, 151	5.1	9
150	The PREHydrA: A Passive Return, High Force Density, Electro-Hydrostatic Actuator Concept for Wearable Robotics. *IEEE Robotics and Automation Letters*, **2018**, 3, 3569-3574	4.2	5
149	Effects of a powered ankle-foot orthosis on perturbed standing balance. *Journal of NeuroEngineering and Rehabilitation*, **2018**, 15, 50	5.3	25
148	Foot Placement Modulation Diminishes for Perturbations Near Foot Contact. *Frontiers in Bioengineering and Biotechnology*, **2018**, 6, 48	5.8	11
147	Validation of Online Intrinsic and Reflexive Joint Impedance Estimates Using Correlation with EMG Measurements **2018**,		1
146	Joint Stiffness Compensation for Application in the EXTEND Hand Orthosis **2018**,		3
145	Improving the Standing Balance of Paraplegics through the Use of a Wearable Exoskeleton **2018**,		10
144	Lower extremity joint-level responses to pelvis perturbation during human walking. *Scientific Reports*, **2018**, 8, 14621	4.9	23
143	Performance-Based Adaptive Assistance for Diverse Subtasks of Walking in a Robotic Gait Trainer: Description of a New Controller and Preliminary Results **2018**,		5
142	Evaluation of the Achilles Ankle Exoskeleton. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2017**, 25, 151-160	4.8	42
141	Rapid limb-specific modulation of vestibular contributions to ankle muscle activity during locomotion. *Journal of Physiology*, **2017**, 595, 2175-2195	3.9	22
140	Assessment of the underlying systems involved in standing balance: the additional value of electromyography in system identification and parameter estimation. *Journal of NeuroEngineering and Rehabilitation*, **2017**, 14, 97	5.3	9
139	Manual physical balance assistance of therapists during gait training of stroke survivors: characteristics and predicting the timing. *Journal of NeuroEngineering and Rehabilitation*, **2017**, 14, 125	5.3	5
138	Improving the Standing Balance of People with Spinal Cord Injury Through the Use of a Powered Ankle-Foot Orthosis. *Biosystems and Biorobotics*, **2017**, 415-419	0.2	1
137	Joint-Level Responses to Counteract Perturbations Scale with Perturbation Magnitude and Direction. *Biosystems and Biorobotics*, **2017**, 139-142	0.2	

136	Introducing a Modular, Personalized Exoskeleton for Ankle and Knee Support of Individuals with a Spinal Cord Injury. *Biosystems and Biorobotics*, **2017**, 169-173	0.2	6
135	A Versatile Neuromuscular Exoskeleton Controller for Gait Assistance: A Preliminary Study on Spinal Cord Injury Patients. *Biosystems and Biorobotics*, **2017**, 163-167	0.2	2
134	Towards Exoskeletons with Balance Capacities. *Biosystems and Biorobotics*, **2017**, 175-179	0.2	1
133	Paretic versus non-paretic stepping responses following pelvis perturbations in walking chronic-stage stroke survivors. *Journal of NeuroEngineering and Rehabilitation*, **2017**, 14, 106	5.3	8
132	An Adaptive Neuromuscular Controller for Assistive Lower-Limb Exoskeletons: A Preliminary Study on Subjects with Spinal Cord Injury. *Frontiers in Neurorobotics*, **2017**, 11, 30	3.4	34
131	User Acceptance of a Balance Support System that Enables Unsupervised Training of Balance and Walking in Stroke Survivors. *Biosystems and Biorobotics*, **2017**, 311-315	0.2	
130	Effects of a neuromuscular controller on a powered ankle exoskeleton during human walking **2016**,		15
129	Asymmetries in reactive and anticipatory balance control are of similar magnitude in Parkinson's disease patients. *Gait and Posture*, **2016**, 43, 108-13	2.6	12
128	Center of mass velocity-based predictions in balance recovery following pelvis perturbations during human walking. *Journal of Experimental Biology*, **2016**, 219, 1514-23	3	70
127	LOPES II--Design and Evaluation of an Admittance Controlled Gait Training Robot With Shadow-Leg Approach. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2016**, 24, 352-63	4.8	83
126	Reliability of System Identification Techniques to Assess Standing Balance in Healthy Elderly. *PLoS ONE*, **2016**, 11, e0151012	3.7	4
125	Robot-Aided Gait Training with LOPES **2016**, 461-481		3
124	Pneumatic Feedback for Wearable Lower Limb Exoskeletons Further Explored. *Lecture Notes in Computer Science*, **2016**, 90-98	0.9	
123	The effect of 'device-in-charge' versus 'patient-in-charge' support during robotic gait training on walking ability and balance in chronic stroke survivors: A systematic review. *Journal of Rehabilitation and Assistive Technologies Engineering*, **2016**, 3, 2055668316676785	1.7	3
122	Adaptation of multijoint coordination during standing balance in healthy young and healthy old individuals. *Journal of Neurophysiology*, **2016**, 115, 1422-35	3.2	21
121	Comparison of closed-loop system identification techniques to quantify multi-joint human balance control. *Annual Reviews in Control*, **2016**, 41, 58-70	10.3	12
120	Robot-aided assessment of lower extremity functions: a review. *Journal of NeuroEngineering and Rehabilitation*, **2016**, 13, 72	5.3	52
119	. *IEEE Transactions on Robotics*, **2016**, 32, 920-932	6.5	18

118	LIMPACT:A Hydraulically Powered Self-Aligning Upper Limb Exoskeleton. *IEEE/ASME Transactions on Mechatronics*, **2015**, 20, 2285-2298	5.5	83
117	Direct measurement of the intrinsic ankle stiffness during standing. *Journal of Biomechanics*, **2015**, 48, 1258-63	2.9	27
116	Poor motor function is associated with reduced sensory processing after stroke. *Experimental Brain Research*, **2015**, 233, 1339-49	2.3	29
115	Design and control of the MINDWALKER exoskeleton. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2015**, 23, 277-86	4.8	196
114	Assessment of Multi-Joint Coordination and Adaptation in Standing Balance: A Novel Device and System Identification Technique. *IEEE Transactions on Neural Systems and Rehabilitation Engineering* , **2015**, 23, 973-82	4.8	24
113	Changes in sensory reweighting of proprioceptive information during standing balance with age and disease. *Journal of Neurophysiology*, **2015**, 114, 3220-33	3.2	36
112	Assessing Standing Balance using MIMO Closed Loop System Identification Techniques. *IFAC-PapersOnLine*, **2015**, 48, 1381-1385	0.7	1
111	Stretch Evoked Potentials in Healthy Subjects and After Stroke: A Potential Measure for Proprioceptive Sensorimotor Function. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2015**, 23, 643-54	4.8	12
110	Speed-dependent reference joint trajectory generation for robotic gait support. *Journal of Biomechanics*, **2014**, 47, 1447-58	2.9	46
109	Achilles: An autonomous lightweight ankle exoskeleton to provide push-off power **2014**,		22
108	A damper driven robotic end-point manipulator for functional rehabilitation exercises after stroke. *IEEE Transactions on Biomedical Engineering*, **2014**, 61, 2646-54	5	17
107	The effect of impedance-controlled robotic gait training on walking ability and quality in individuals with chronic incomplete spinal cord injury: an explorative study. *Journal of NeuroEngineering and Rehabilitation*, **2014**, 11, 26	5.3	58
106	Impaired standing balance in elderly: a new engineering method helps to unravel causes and effects. *Journal of the American Medical Directors Association*, **2014**, 15, 227.e1-227.e6	5.9	26
105	Advances in Robotic Gait Training. *Biosystems and Biorobotics*, **2014**, 187-190	0.2	
104	EMG patterns during assisted walking in the exoskeleton. *Frontiers in Human Neuroscience*, **2014**, 8, 423	3.3	74
103	Passive reach and grasp with functional electrical stimulation and robotic arm support. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2014**, 2014, 3085-9	0.9	1
102	. *IEEE Robotics and Automation Magazine*, **2014**, 21, 56-61	3.4	47
101	Parkinson's disease patients compensate for balance control asymmetry. *Journal of Neurophysiology*, **2014**, 112, 3227-39	3.2	28

100	Impaired standing balance: the clinical need for closing the loop. *Neuroscience*, **2014**, 267, 157-65	3.9	62
99	Face to phase: pitfalls in time delay estimation from coherency phase. *Journal of Computational Neuroscience*, **2014**, 37, 1-8	1.4	9
98	Balance asymmetry in Parkinson's disease and its contribution to freezing of gait. *PLoS ONE*, **2014**, 9, e102493	3.7	31
97	The effect of directional inertias added to pelvis and ankle on gait. *Journal of NeuroEngineering and Rehabilitation*, **2013**, 10, 40	5.3	25
96	Identification of the contribution of the ankle and hip joints to multi-segmental balance control. *Journal of NeuroEngineering and Rehabilitation*, **2013**, 10, 23	5.3	50
95	Selective control of gait subtasks in robotic gait training: foot clearance support in stroke survivors with a powered exoskeleton. *Journal of NeuroEngineering and Rehabilitation*, **2013**, 10, 3	5.3	34
94	Control of thumb force using surface functional electrical stimulation and muscle load sharing. *Journal of NeuroEngineering and Rehabilitation*, **2013**, 10, 104	5.3	8
93	Quantifying connectivity via efferent and afferent pathways in motor control using coherence measures and joint position perturbations. *Experimental Brain Research*, **2013**, 228, 141-53	2.3	24
92	Lateral balance control for robotic gait training. *IEEE International Conference on Rehabilitation Robotics*, **2013**, 2013, 6650363	1.3	5
91	Modeling, design, and optimization of Mindwalker series elastic joint. *IEEE International Conference on Rehabilitation Robotics*, **2013**, 2013, 6650381	1.3	6
90	Design of a perfect balance system for active upper-extremity exoskeletons. *IEEE International Conference on Rehabilitation Robotics*, **2013**, 2013, 6650376	1.3	4
89	Design of a self-aligning 3-DOF actuated exoskeleton for diagnosis and training of wrist and forearm after stroke. *IEEE International Conference on Rehabilitation Robotics*, **2013**, 2013, 6650357	1.3	9
88	Novel actuation design of a gait trainer with shadow leg approach. *IEEE International Conference on Rehabilitation Robotics*, **2013**, 2013, 6650369	1.3	7
87	Improving the transparency of a rehabilitation robot by exploiting the cyclic behaviour of walking. *IEEE International Conference on Rehabilitation Robotics*, **2013**, 2013, 6650393	1.3	19
86	SCRIPT passive orthosis: design and technical evaluation of the wrist and hand orthosis for rehabilitation training at home. *IEEE International Conference on Rehabilitation Robotics*, **2013**, 2013, 6650401	1.3	25
85	Optimization of human walking for exoskeletal support. *IEEE International Conference on Rehabilitation Robotics*, **2013**, 2013, 6650394	1.3	7
84	Actively controlled lateral gait assistance in a lower limb exoskeleton **2013**,		19
83	Effectiveness of the LOwer Extremity Powered ExoSkeleton (LOPES) Robotic Gait Trainer on Ability and Quality of Walking in SCI Patients. *Biosystems and Biorobotics*, **2013**, 161-165	0.2	3

82	Selectivity and resolution of surface electrical stimulation for grasp and release. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2012**, 20, 94-101	4.8	27
81	Feed-forward support of human walking **2012**,		2
80	MINDWALKER: Going one step further with assistive lower limbs exoskeleton for SCI condition subjects **2012**,		23
79	Real-time estimate of period derivatives using adaptive oscillators: Application to impedance-based walking assistance **2012**,		12
78	Sensory reweighting of proprioceptive information of the left and right leg during human balance control. *Journal of Neurophysiology*, **2012**, 108, 1138-48	3.2	36
77	A simple controller for the prediction of three-dimensional gait. *Journal of Biomechanics*, **2012**, 45, 2610-7	2.9	10
76	Dynamic Balance Control (DBC) in lower leg amputee subjects; contribution of the regulatory activity of the prosthesis side. *Clinical Biomechanics*, **2012**, 27, 40-5	2.2	50
75	Grasp and release with surface functional electrical stimulation using a Model Predictive Control approach. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 333-6	0.9	8
74	A method for evaluation and comparison of parallel robots for safe human interaction, applied to robotic TMS **2012**,		1
73	Robot-Aided Gait Training with LOPES **2012**, 379-396		9
72	A passive exoskeleton with artificial tendons: design and experimental evaluation. *IEEE International Conference on Rehabilitation Robotics*, **2011**, 2011, 5975470	1.3	57
71	Spring uses in exoskeleton actuation design. *IEEE International Conference on Rehabilitation Robotics*, **2011**, 2011, 5975471	1.3	19
70	Sensing pressure distribution on a lower-limb exoskeleton physical human-machine interface. *Sensors*, **2011**, 11, 207-27	3.8	79
69	Sampling duration effects on centre of pressure descriptive measures. *Gait and Posture*, **2011**, 34, 19-24	2.6	60
68	Flexible Assistive Robots Through AFO-Based Intention Detection. *Procedia Computer Science*, **2011**, 7, 323-324	1.6	
67	A bilateral ankle manipulator to investigate human balance control. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2011**, 19, 660-9	4.8	16
66	Non-linear stimulus-response behavior of the human stance control system is predicted by optimization of a system with sensory and motor noise. *Journal of Computational Neuroscience*, **2011**, 30, 759-78	1.4	102
65	Oscillator-based assistance of cyclical movements: model-based and model-free approaches. *Medical and Biological Engineering and Computing*, **2011**, 49, 1173-85	3.1	125

64	An explorative study into changes in circle drawing after gravity compensation training in chronic stroke patients. *IEEE International Conference on Rehabilitation Robotics*, **2011**, 2011, 5975402	1.3	4
63	Model Predictive Control-based gait pattern generation for wearable exoskeletons. *IEEE International Conference on Rehabilitation Robotics*, **2011**, 2011, 5975442	1.3	9
62	Velocity-dependent reference trajectory generation for the LOPES gait training robot. *IEEE International Conference on Rehabilitation Robotics*, **2011**, 2011, 5975414	1.3	6
61	Oscillator-based walking assistance: a model-free approach. *IEEE International Conference on Rehabilitation Robotics*, **2011**, 2011, 5975352	1.3	30
60	Rendering potential wearable robot designs with the LOPES gait trainer. *IEEE International Conference on Rehabilitation Robotics*, **2011**, 2011, 5975448	1.3	4
59	Position and torque tracking: series elastic actuation versus model-based-controlled hydraulic actuation. *IEEE International Conference on Rehabilitation Robotics*, **2011**, 2011, 5975456	1.3	2
58	Effect of added inertia on the pelvis on gait. *IEEE International Conference on Rehabilitation Robotics*, **2011**, 2011, 5975493	1.3	7
57	Locomotor adaptation and retention to gradual and sudden dynamic perturbations. *IEEE International Conference on Rehabilitation Robotics*, **2011**, 2011, 5975379	1.3	7
56	Effect of position feedback during task-oriented upper-limb training after stroke: five-case pilot study. *Journal of Rehabilitation Research and Development*, **2011**, 48, 1109-18		13
55	In vivo measurement of human knee and hip dynamics using MIMO system identification. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 3426-9	0.9	7
54	Soft artificial tactile sensors for the measurement of human-robot interaction in the rehabilitation of the lower limb. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 1279-82	0.9	15
53	Design of an electric series elastic actuated joint for robotic gait rehabilitation training **2010**,		65
52	Design of a rotational hydroelastic actuator for a powered exoskeleton for upper limb rehabilitation. *IEEE Transactions on Biomedical Engineering*, **2010**, 57, 728-35	5	82
51	An explorative, cross-sectional study into abnormal muscular coupling during reach in chronic stroke patients. *Journal of NeuroEngineering and Rehabilitation*, **2010**, 7, 14	5.3	9
50	Suitability of Hydraulic Disk Brakes for Passive Actuation of Upper-Extremity Rehabilitation Exoskeleton. *Applied Bionics and Biomechanics*, **2009**, 6, 103-114	1.6	2
49	Influence of gravity compensation on muscle activation patterns during different temporal phases of arm movements of stroke patients. *Neurorehabilitation and Neural Repair*, **2009**, 23, 478-85	4.7	59
48	Preliminary results of training with gravity compensation of the arm in chronic stroke survivors. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2009**, 2009, 2426-9	0.9	3
47	Freebal: Design of a Dedicated Weight-Support System for Upper-Extremity Rehabilitation. *Journal of Medical Devices, Transactions of the ASME*, **2009**, 3,	1.3	19

46	Dampace: Design of an Exoskeleton for Force-Coordination Training in Upper-Extremity Rehabilitation. *Journal of Medical Devices, Transactions of the ASME*, **2009**, 3,	1.3	45
45	Influence of haptic guidance in learning a novel visuomotor task. *Journal of Physiology (Paris)*, **2009**, 103, 276-85		46
44	Reference trajectory generation for rehabilitation robots: complementary limb motion estimation. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2009**, 17, 23-30	4.8	141
43	Ankle-foot orthoses in stroke: effects on functional balance, weight-bearing asymmetry and the contribution of each lower limb to balance control. *Clinical Biomechanics*, **2009**, 24, 769-75	2.2	60
42	Influence of gravity compensation on muscle activity during reach and retrieval in healthy elderly. *Journal of Electromyography and Kinesiology*, **2009**, 19, e40-9	2.5	34
41	Selective and adaptive robotic support of foot clearance for training stroke survivors with stiff knee gait **2009**,		8
40	Self-Aligning Exoskeleton Axes Through Decoupling of Joint Rotations and Translations. *IEEE Transactions on Robotics*, **2009**, 25, 628-633	6.5	167
39	Assessment of visuospatial neglect in stroke patients using virtual reality: a pilot study. *International Journal of Rehabilitation Research*, **2009**, 32, 280-6	1.8	17
38	Suitability of hydraulic disk brakes for passive actuation of upper-extremity rehabilitation exoskeleton. *Applied Bionics and Biomechanics*, **2009**, 6, 103-114	1.6	4
37	Compliant actuation of rehabilitation robots. *IEEE Robotics and Automation Magazine*, **2008**, 15, 60-69	3.4	300
36	The Effects on Kinematics and Muscle Activity of Walking in a Robotic Gait Trainer During Zero-Force Control. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2008**, 16, 360-370	4.8	92
35	The clinical utility of posturography. *Clinical Neurophysiology*, **2008**, 119, 2424-36	4.3	298
34	Fixating the pelvis in the horizontal plane affects gait characteristics. *Gait and Posture*, **2008**, 28, 157-63	2.6	55
33	Design of a rotational hydro-elastic actuator for an active upper-extremity rehabilitation exoskeleton **2008**,		16
32	A low-tech virtual reality application for training of upper extremity motor function in neurorehabilitation **2008**,		7
31	An electric scooter simulation program for training the driving skills of stroke patients with mobility problems: a pilot study. *Cyberpsychology, Behavior and Social Networking*, **2008**, 11, 751-4		26
30	Gait disorders and balance disturbances in Parkinson's disease: clinical update and pathophysiology. *Current Opinion in Neurology*, **2008**, 21, 461-71	7.1	161
29	Postural responses evoked by platform pertubations are dominated by continuous feedback. *Journal of Neurophysiology*, **2007**, 98, 730-43	3.2	75

28	Design and evaluation of the LOPES exoskeleton robot for interactive gait rehabilitation. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2007**, 15, 379-86	4.8	865
27	Use of induced acceleration to quantify the (de)stabilization effect of external and internal forces on postural responses. *IEEE Transactions on Biomedical Engineering*, **2007**, 54, 2284-95	5	10
26	Detecting asymmetries in balance control with system identification: first experimental results from Parkinson patients. *Journal of Neural Transmission*, **2007**, 114, 1333-7	4.3	29
25	Complementary Limb Motion Estimation based on Interjoint Coordination: Experimental Evaluation **2007**,		13
24	Evaluation of a Virtual Model Control for the selective support of gait functions using an exoskeleton **2007**,		9
23	LOPES: a lower extremity powered exoskeleton. *Proceedings - IEEE International Conference on Robotics and Automation*, **2007**,		14
22	Increased range of motion and decreased muscle activity during maximal reach with gravity compensation in stroke patients **2007**,		11
21	Freebal: dedicated gravity compensation for the upper extremities **2007**,		30
20	Detecting asymmetries in balance control with system identification: first experimental results from above knee amputees **2007**,		1
19	Reduction of muscle activity during repeated reach and retrieval with gravity compensation in stroke patients **2007**,		5
18	Selective control of a subtask of walking in a robotic gait trainer(LOPES) **2007**,		29
17	Evaluation of the effect on walking of balance-related degrees of freedom in a robotic gait training device **2007**,		9
16	Passive and accurate torque control of series elastic actuators **2007**,		82
15	Evaluation of instrumented shoes for ambulatory assessment of ground reaction forces. *Gait and Posture*, **2007**, 26, 39-47	2.6	87
14	Dampace: dynamic force-coordination trainer for the upper extremities **2007**,		52
13	Design of a compliantly actuated exo-skeleton for an impedance controlled gait trainer robot. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2006**, 2006, 189-93		21
12	Disentangling the contribution of the paretic and non-paretic ankle to balance control in stroke patients. *Experimental Neurology*, **2006**, 201, 441-51	5.7	73
11	Comparison of different methods to identify and quantify balance control. *Journal of Neuroscience Methods*, **2005**, 145, 175-203	3	150

10	Observations from unperturbed closed loop systems cannot indicate causality. *Journal of Physiology*, **2005**, 569, 705; author reply 706	3.9	7
9	Ambulatory measurement of ground reaction forces. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2005**, 13, 423-7	4.8	113
8	Comparing internal models of the dynamics of the visual environment. *Biological Cybernetics*, **2005**, 92, 147-63	2.8	34
7	Discussion on: Robust Discrete-Time H Control for Unsupported Paraplegic Standing: Experimental Results *European Journal of Control*, **2004**, 10, 285-287	2.5	
6	An alternative approach to synthesizing bipedal walking. *Biological Cybernetics*, **2003**, 88, 46-59	2.8	26
5	An adaptive model of sensory integration in a dynamic environment applied to human stance control. *Biological Cybernetics*, **2001**, 84, 103-15	2.8	165
4	A multisensory integration model of human stance control. *Biological Cybernetics*, **1999**, 80, 299-308	2.8	193
3	LOPES: selective control of gait functions during the gait rehabilitation of CVA patients		30
2	Design of a series elastic- and Bowden cable-based actuation system for use as torque-actuator in exoskeleton-type training		39
1	Identification of human balance control in standing		3