

Etienne Burdet

List of Publications by Year in descending order

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276
papers

12,222
citations

47006

47
h-index

33894

99
g-index

286
all docs

286
docs citations

286
times ranked

8150
citing authors

#	ARTICLE	IF	CITATIONS
1	Identification of Multiple Limbs Coordination Strategies in a Three-Goal Independent Task. IEEE Transactions on Medical Robotics and Bionics, 2022, 4, 348-351.	3.2	2
2	Development of functional organization within the sensorimotor network across the perinatal period. Human Brain Mapping, 2022, 43, 2249-2261.	3.6	6
3	Modernising grip dynamometry: Inter-instrument reliability between GripAble and Jamar. BMC Musculoskeletal Disorders, 2022, 23, 80.	1.9	8
4	Active Visuo-Tactile Interactive Robotic Perception for Accurate Object Pose Estimation in Dense Clutter. IEEE Robotics and Automation Letters, 2022, 7, 4686-4693.	5.1	16
5	GripAble: An accurate, sensitive and robust digital device for measuring grip strength. Journal of Rehabilitation and Assistive Technologies Engineering, 2022, 9, 205566832210784.	0.9	6
6	Principles of human movement augmentation and the challenges in making it a reality. Nature Communications, 2022, 13, 1345.	12.8	34
7	Balance strategy in hoverboard control. Scientific Reports, 2022, 12, 4509.	3.3	3
8	Is a Robot Needed to Modify Human Effort in Bimanual Tracking?. IEEE Robotics and Automation Letters, 2022, 7, 8069-8075.	5.1	2
9	Indirect Shared Control for Cooperative Driving Between Driver and Automation in Steer-by-Wire Vehicles. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 7826-7836.	8.0	37
10	Cable-Driven Robotic Interface for Lower Limb Neuromechanics Identification. IEEE Transactions on Biomedical Engineering, 2021, 68, 461-469.	4.2	4
11	Cortical Processing of Multimodal Sensory Learning in Human Neonates. Cerebral Cortex, 2021, 31, 1827-1836.	2.9	7
12	Short Time Delay Does Not Hinder Haptic Communication Benefits. IEEE Transactions on Haptics, 2021, 14, 322-327.	2.7	9
13	Arm movement adaptation to concurrent pain constraints. Scientific Reports, 2021, 11, 6792.	3.3	1
14	Flexible Assimilation of Human's Target for Versatile Human-Robot Physical Interaction. IEEE Transactions on Haptics, 2021, 14, 421-431.	2.7	6
15	Design and Evaluation of a Foot-Controlled Robotic System for Endoscopic Surgery. IEEE Robotics and Automation Letters, 2021, 6, 2469-2476.	5.1	14
16	A Three-Limb Teleoperated Robotic System with Foot Control for Flexible Endoscopic Surgery. Annals of Biomedical Engineering, 2021, 49, 2282-2296.	2.5	21
17	Human performance in three-hands tasks. Scientific Reports, 2021, 11, 9511.	3.3	17
18	Stochastic optimal feedforward-feedback control determines timing and variability of arm movements with or without vision. PLoS Computational Biology, 2021, 17, e1009047.	3.2	21

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19	Robotic Assisted Upper Limb Training Post Stroke: A Randomized Control Trial Using Combinatory Approach Toward Reducing Workforce Demands. <i>Frontiers in Neurology</i> , 2021, 12, 622014.	2.4	21
20	An eye tracking based virtual reality system for use inside magnetic resonance imaging systems. <i>Scientific Reports</i> , 2021, 11, 16301.	3.3	21
21	Self-Directed Exergaming for Stroke Upper Limb Impairment Increases Exercise Dose Compared to Standard Care. <i>Neurorehabilitation and Neural Repair</i> , 2021, 35, 974-985.	2.9	13
22	Proof-of-Concept of a Sensor-Based Evaluation Method for Better Sensitivity of Upper-Extremity Motor Function Assessment. <i>Sensors</i> , 2021, 21, 5926.	3.8	7
23	EEG measures of sensorimotor processing and their development are abnormal in children with isolated dystonia and dystonic cerebral palsy. <i>NeuroImage: Clinical</i> , 2021, 30, 102569.	2.7	7
24	Adapting the visuo-haptic perception through muscle coactivation. <i>Scientific Reports</i> , 2021, 11, 21986.	3.3	5
25	Trimanipulation: Evaluation of human performance in a 3-handed coordination task. , 2021, , .		7
26	Perception and Performance of Electrical Stimulation for Proprioception. , 2021, 2021, 4550-4554.		3
27	Haptic Bimanual System for Teleoperation of Time-Delayed Tasks. , 2021, , .		1
28	A Subject-Specific Four-Degree-of-Freedom Foot Interface to Control a Surgical Robot. <i>IEEE/ASME Transactions on Mechatronics</i> , 2020, 25, 951-963.	5.8	26
29	Energetic Passivity Decoding of Human Hip Joint for Physical Human-Robot Interaction. <i>IEEE Robotics and Automation Letters</i> , 2020, 5, 5953-5960.	5.1	10
30	Abnormal microscale neuronal connectivity triggered by a proprioceptive stimulus in dystonia. <i>Scientific Reports</i> , 2020, 10, 20758.	3.3	7
31	Adaptive impedance control with trajectory adaptation for minimizing interaction force. , 2020, , .		5
32	An fMRI Compatible Smart Device for Measuring Palmar Grasping Actions in Newborns. <i>Sensors</i> , 2020, 20, 6040.	3.8	11
33	A Multimodal Intention Detection Sensor Suite for Shared Autonomy of Upper-Limb Robotic Prostheses. <i>Sensors</i> , 2020, 20, 6097.	3.8	16
34	The dominant limb preferentially stabilizes posture in a bimanual task with physical coupling. <i>Journal of Neurophysiology</i> , 2020, 123, 2154-2160.	1.8	18
35	Improving Tracking through Human-Robot Sensory Augmentation. <i>IEEE Robotics and Automation Letters</i> , 2020, 5, 4399-4406.	5.1	15
36	The Influence of Posture, Applied Force and Perturbation Direction on Hip Joint Viscoelasticity. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2020, 28, 1138-1145.	4.9	10

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37	Estimating Human Wrist Stiffness during a Tooling Task. Sensors, 2020, 20, 3260.	3.8	8
38	For Motion Assistance Humans Prefer to Rely on a Robot Rather Than on an Unpredictable Human. IEEE Open Journal of Engineering in Medicine and Biology, 2020, 1, 133-139.	2.3	20
39	Nonlinearity Compensation in A Multi-DoF Shoulder Sensing Exosuit For Real-Time Teleoperation. , 2020, , .		3
40	A Clustering-Based Approach to Identify Joint Impedance During Walking. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 1808-1816.	4.9	9
41	Identification of the best strategy to command variable stiffness using electromyographic signals. Journal of Neural Engineering, 2020, 17, 016058.	3.5	4
42	Tri-Manipulation: An Evaluation of Human Performance in 3-Handed Teleoperation. IEEE Transactions on Medical Robotics and Bionics, 2020, 2, 545-548.	3.2	14
43	Analogous adaptations in speed, impulse and endpoint stiffness when learning a real and virtual insertion task with haptic feedback. Scientific Reports, 2020, 10, 22342.	3.3	3
44	Prediction of Gait Freezing in Parkinsonian Patients: A Binary Classification Augmented With Time Series Prediction. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 1909-1919.	4.9	34
45	The effect of skill level matching in dyadic interaction on learning of a tracing task. , 2019, 2019, 824-829.		12
46	Performance Evaluation of a Foot Interface to Operate a Robot Arm. IEEE Robotics and Automation Letters, 2019, 4, 3302-3309.	5.1	14
47	Large-Area Soft e-Skin: The Challenges Beyond Sensor Designs. Proceedings of the IEEE, 2019, 107, 2016-2033.	21.3	214
48	Augmented manipulation ability in humans with six-fingered hands. Nature Communications, 2019, 10, 2401.	12.8	37
49	Exploring User Motor Behaviour in Bimanual Interactive Video Games. , 2019, , .		0
50	Differential game theory for versatile physical human-robot interaction. Nature Machine Intelligence, 2019, 1, 36-43.	16.0	69
51	Assisting Human Balance in Standing With a Robotic Exoskeleton. IEEE Robotics and Automation Letters, 2019, 4, 414-421.	5.1	25
52	Bimanual coordination during a physically coupled task in unilateral spastic cerebral palsy children. Journal of NeuroEngineering and Rehabilitation, 2019, 16, 1.	4.6	133
53	Individuals physically interacting in a group rapidly coordinate their movement by estimating the collective goal. ELife, 2019, 8, .	6.0	26
54	Symbitron: Symbiotic Man-Machine Interactions in Wearable Exoskeletons to Enhance Mobility for Paraplegics. Biosystems and Biorobotics, 2019, , 361-364.	0.3	0

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55	Is EMG a Viable Alternative to BCI for Detecting Movement Intention in Severe Stroke?. IEEE Transactions on Biomedical Engineering, 2018, 65, 2790-2797.	4.2	53
56	Horseback riding therapy for a deafblind individual enabled by a haptic interface. Assistive Technology, 2018, 30, 143-150.	2.0	7
57	Sensory Integration of Apparent Motion Speed and Vibration Magnitude. IEEE Transactions on Haptics, 2018, 11, 455-463.	2.7	6
58	Development and Comparison of Foot Interfaces for Controlling a Robotic Arm in Surgery. , 2018, , .		6
59	A novel sensor design for accurate measurement of facial somatosensation in pre-term infants. PLoS ONE, 2018, 13, e0207145.	2.5	8
60	Muscle patterns underlying voluntary modulation of co-contraction. PLoS ONE, 2018, 13, e0205911.	2.5	13
61	Somatotopic Mapping of the Developing Sensorimotor Cortex in the Preterm Human Brain. Cerebral Cortex, 2018, 28, 2507-2515.	2.9	68
62	Force, Impedance, and Trajectory Learning for Contact Tooling and Haptic Identification. IEEE Transactions on Robotics, 2018, 34, 1170-1182.	10.3	102
63	Interactive robot assistance for upper-limb training. , 2018, , 137-148.		4
64	Haptic communication between humans is tuned by the hard or soft mechanics of interaction. PLoS Computational Biology, 2018, 14, e1005971.	3.2	49
65	Physically interacting individuals estimate the partner's goal to enhance their movements. Nature Human Behaviour, 2017, 1, .	12.0	91
66	Elasticity improves handgrip performance and user experience during visuomotor control. Royal Society Open Science, 2017, 4, 160961.	2.4	15
67	Versatile Interaction Control and Haptic Identification in Humans and Robots. Springer Tracts in Advanced Robotics, 2017, , 187-206.	0.4	10
68	Transfer of dynamic motor skills acquired during isometric training to free motion. Journal of Neurophysiology, 2017, 118, 219-233.	1.8	7
69	SITAR: a system for independent task-oriented assessment and rehabilitation. Journal of Rehabilitation and Assistive Technologies Engineering, 2017, 4, 205566831772963.	0.9	9
70	Anticipatory detection of turning in humans for intuitive control of robotic mobility assistance. Bioinspiration and Biomimetics, 2017, 12, 055004.	2.9	8
71	A simple tool to measure spasticity in spinal cord injury subjects. , 2017, 2017, 1590-1596.		6
72	Driver-automation indirect shared control of highly automated vehicles with intention-aware authority transition. , 2017, , .		34

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73	Collaborative Gaming to Enhance Patient Performance During Virtual Therapy. Biosystems and Biorobotics, 2017, , 375-379.	0.3	2
74	Modeling of Endpoint Feedback Learning Implemented Through Point-to-Point Learning Control. IEEE Transactions on Control Systems Technology, 2017, 25, 1576-1585.	5.2	6
75	Modelling Neuromuscular Function of SCI Patients in Balancing. Biosystems and Biorobotics, 2017, , 355-359.	0.3	1
76	Positioning the endoscope in laparoscopic surgery by foot: Influential factors on surgeons' performance in virtual trainer. , 2017, 2017, 3944-3948.		7
77	Validity of a sensor-based table-top platform to measure upper limb function. , 2017, 2017, 652-657.		3
78	Balancing the playing field: collaborative gaming for physical training. Journal of NeuroEngineering and Rehabilitation, 2017, 14, 116.	4.6	47
79	Taxonomy based analysis of force exchanges during object grasping and manipulation. PLoS ONE, 2017, 12, e0178185.	2.5	8
80	Investigation of isometric strength and control of the upper extremities in multiple sclerosis. Journal of Rehabilitation and Assistive Technologies Engineering, 2016, 3, 205566831666397.	0.9	5
81	Self-Paced Reaching after Stroke: A Quantitative Assessment of Longitudinal and Directional Sensitivity Using the H-Man Planar Robot for Upper Limb Neurorehabilitation. Frontiers in Neuroscience, 2016, 10, 477.	2.8	16
82	How Variability and Effort Determine Coordination at Large Forces. PLoS ONE, 2016, 11, e0149512.	2.5	4
83	EMERGING DIRECTIONS IN LOWER LIMB EXTERNALLY WEARABLE ROBOTS FOR GAIT REHABILITATION AND AUGMENTATION "A REVIEW. , 2016, , 840-850.		3
84	In a demanding task, three-handed manipulation is preferred to two-handed manipulation. Scientific Reports, 2016, 6, 21758.	3.3	44
85	Computational neurorehabilitation: modeling plasticity and learning to predict recovery. Journal of NeuroEngineering and Rehabilitation, 2016, 13, 42.	4.6	125
86	Multi-source micro-friction identification for a class of cable-driven robots with passive backbone. Mechanical Systems and Signal Processing, 2016, 80, 152-165.	8.0	12
87	Effects of a neuromuscular controller on a powered ankle exoskeleton during human walking. , 2016, , .		19
88	The duration of reaching movement is longer than predicted by minimum variance. Journal of Neurophysiology, 2016, 116, 2342-2345.	1.8	32
89	Facing the partner influences exchanges in force. Scientific Reports, 2016, 6, 35397.	3.3	7
90	A Simple fMRI Compatible Robotic Stimulator to Study the Neural Mechanisms of Touch and Pain. Annals of Biomedical Engineering, 2016, 44, 2431-2441.	2.5	5

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91	Variable Stiffness Actuators: Review on Design and Components. IEEE/ASME Transactions on Mechatronics, 2016, 21, 2418-2430.	5.8	293
92	Maturation of Sensori-Motor Functional Responses in the Preterm Brain. Cerebral Cortex, 2016, 26, 402-413.	2.9	71
93	Deaf-Blind Can Practise Horse Riding with the Help of Haptics. Lecture Notes in Computer Science, 2016, , 452-461.	1.3	2
94	Democratizing Neurorehabilitation: How Accessible are Low-Cost Mobile-Gaming Technologies for Self-Rehabilitation of Arm Disability in Stroke?. PLoS ONE, 2016, 11, e0163413.	2.5	31
95	Motion Plan Changes Predictably in Dyadic Reaching. PLoS ONE, 2016, 11, e0167314.	2.5	20
96	A Versatile Robotic Haptic Stimulator to Study the Influence of Pain on Human Motor Control and Learning. Lecture Notes in Computer Science, 2016, , 101-110.	1.3	0
97	A Wearable Automated System to Quantify Parkinsonian Symptoms Enabling Closed Loop Deep Brain Stimulation. Lecture Notes in Computer Science, 2016, , 8-19.	1.3	3
98	Pediatric Rehabilitation of Upper Limb Function Using Novel Robotic Device ReachMAN2. , 2016, , .		1
99	Investigating Tactile Sensation in the Hand Using a Robot-Based Tactile Assessment Tool. Lecture Notes in Computer Science, 2016, , 17-24.	1.3	1
100	Preliminary feasibility study of the H-Man planar robot for quantitative motor assessment. , 2015, , .		4
101	On the analysis of movement smoothness. Journal of NeuroEngineering and Rehabilitation, 2015, 12, 112.	4.6	335
102	Quantitative motor assessment of upperlimb after unilateral stroke: A preliminary feasibility study with H-Man, a planar robot. , 2015, , .		8
103	Interpersonal strategies for disturbance attenuation during a rhythmic joint motor action. Physiology and Behavior, 2015, 147, 348-358.	2.1	31
104	Acquisition of motor skills in isometric conditions through synesthetic illusions of movement. , 2015, , .		4
105	Pediatric rehabilitation with the reachMAN's modular handle. , 2015, 2015, 3933-6.		2
106	Motion-based grasp selection: Improving traditional control strategies of myoelectric hand prosthesis. , 2015, , .		4
107	Variable stiffness actuators: The user's point of view. International Journal of Robotics Research, 2015, 34, 727-743.	8.5	160
108	Development and evaluation of a portable MR compatible haptic interface for human motor control. , 2015, , .		4

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109	Comparison of flexible and rigid hand-grip control during a feed-forward visual tracking task. , 2015, , .		5
110	Quantitative assessment of motor deficit with an intelligent key Object: A Pilot Study. , 2015, , .		1
111	Artificial nociception and motor responses to pain, for humans and robots. , 2015, 2015, 7402-5.		6
112	Effect of sensory experience on motor learning strategy. Journal of Neurophysiology, 2015, 113, 1077-1084.	1.8	5
113	Novel Hybrid Adaptive Controller for Manipulation in Complex Perturbation Environments. PLoS ONE, 2015, 10, e0129281.	2.5	35
114	Control of a Supernumerary Robotic Hand by Foot: An Experimental Study in Virtual Reality. PLoS ONE, 2015, 10, e0134501.	2.5	41
115	The effects of hemorrhagic parenchymal infarction on the establishment of sensori-motor structural and functional connectivity in early infancy. Neuroradiology, 2014, 56, 985-994.	2.2	40
116	Dual adaptive control of bimanual manipulation with online fuzzy parameter tuning. , 2014, , .		4
117	Slaves no longer: review on role assignment for human-robot joint motor action. Adaptive Behavior, 2014, 22, 70-82.	1.9	80
118	Ergonomic design of a wrist robot. International Journal of Intelligent Computing and Cybernetics, 2014, 7, 289-306.	2.7	1
119	reachMAN2: A compact rehabilitation robot to train reaching and manipulation. , 2014, , .		9
120	On experimentally validated iterative learning control in human motor systems. , 2014, , .		0
121	Upper limb functional assessment of children with cerebral palsy using a sorting box. , 2014, 2014, 2330-3.		3
122	3DOM: A 3 Degree of Freedom Manipulandum to Investigate Redundant Motor Control. IEEE Transactions on Haptics, 2014, 7, 229-239.	2.7	14
123	An unobtrusive vision system to reduce the cognitive burden of hand prosthesis control. , 2014, , .		4
124	Technology-Aided Assessment of Sensorimotor Function in Early Infancy. Frontiers in Neurology, 2014, 5, 197.	2.4	18
125	Biomimetic joint/task space hybrid adaptive control for bimanual robotic manipulation. , 2014, , .		8
126	Motor adaptation with passive machines: A first study on the effect of real and virtual stiffness. Computer Methods and Programs in Biomedicine, 2014, 116, 145-155.	4.7	15

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127	Two is better than one: Physical interactions improve motor performance in humans. Scientific Reports, 2014, 4, 3824.	3.3	161
128	Implementation and Test of Human-Operated and Human-Like Adaptive Impedance Controls on Baxter Robot. Lecture Notes in Computer Science, 2014, , 109-119.	1.3	24
129	Interaction Force, Impedance and Trajectory Adaptation: By Humans, for Robots. Springer Tracts in Advanced Robotics, 2014, , 331-345.	0.4	37
130	Variable impedance actuators: A review. Robotics and Autonomous Systems, 2013, 61, 1601-1614.	5.1	822
131	An fMRI Compatible Wrist Robotic Interface to Study Brain Development in Neonates. Annals of Biomedical Engineering, 2013, 41, 1181-1192.	2.5	24
132	Analysis of grasping strategies and function in hemiparetic patients using an instrumented object. , 2013, 2013, 6650379.		17
133	Subject-Specific Wrist Model Calibration and Application to Ergonomic Design of Exoskeletons. IEEE Sensors Journal, 2013, 13, 3293-3301.	4.7	5
134	Human like learning algorithm for simultaneous force control and haptic identification. , 2013, , .		4
135	Hyperstaticity for ergonomie design of a wrist exoskeleton. , 2013, 2013, 6650417.		9
136	Motor planning explains human behaviour in tasks with multiple solutions. Robotics and Autonomous Systems, 2013, 61, 362-368.	5.1	27
137	Analysis of Accuracy in Pointing with Redundant Hand-held Tools: A Geometric Approach to the Uncontrolled Manifold Method. PLoS Computational Biology, 2013, 9, e1002978.	3.2	13
138	Ergonomic design of a wrist exoskeleton and its effects on natural motor strategies during redundant tasks. , 2013, , .		2
139	Computer-controlled stimulation for functional magnetic resonance imaging studies of the neonatal olfactory system. Acta Paediatrica, International Journal of Paediatrics, 2013, 102, 868-875.	1.5	25
140	Point-to-point learning in human motor systems. , 2013, , .		2
141	Human Robotics. , 2013, , .		98
142	A versatile biomimetic controller for contact tooling and haptic exploration. , 2012, , .		41
143	Variable impedance actuators: Moving the robots of tomorrow. , 2012, , .		36
144	Robotic Assessment of Upper Limb Motor Function After Stroke. American Journal of Physical Medicine and Rehabilitation, 2012, 91, S255-S269.	1.4	115

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145	Differential neural correlates of reciprocal activation and cocontraction control in dorsal and ventral premotor cortices. Journal of Neurophysiology, 2012, 107, 126-133.	1.8	11
146	Wrist Coordination in a Kinematically Redundant Stabilization Task. IEEE Transactions on Haptics, 2012, 5, 231-239.	2.7	3
147	A geometric approach to the Uncontrolled Manifold analysis. , 2012, , .		0
148	Learning to Design Rehabilitation Devices Through the H-CARD Course: Project-Based Learning of Rehabilitation Technology Design. IEEE Pulse, 2012, 3, 51-58.	0.3	11
149	Guest Editorial Motor Skill Learning and Neuro-Rehabilitation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2012, 20, 237-238.	4.9	7
150	Development of BOLD signal hemodynamic responses in the human brain. NeuroImage, 2012, 63, 663-673.	4.2	172
151	A modular sensor-based system for the Rehabilitation and Assessment of manipulation. , 2012, , .		9
152	Generalization in Adaptation to Stable and Unstable Dynamics. PLoS ONE, 2012, 7, e45075.	2.5	22
153	A Framework to Describe, Analyze and Generate Interactive Motor Behaviors. PLoS ONE, 2012, 7, e49945.	2.5	125
154	A Robust and Sensitive Metric for Quantifying Movement Smoothness. IEEE Transactions on Biomedical Engineering, 2012, 59, 2126-2136.	4.2	309
155	Modeling Individual Human Motor Behavior Through Model Reference Iterative Learning Control. IEEE Transactions on Biomedical Engineering, 2012, 59, 1892-1901.	4.2	18
156	Instrumented sorting block box for children, a preliminary experiment. , 2011, 2011, 5975458.		4
157	A model of reference trajectory adaptation for Interaction with objects of arbitrary shape and impedance. , 2011, , .		4
158	Classification of strategies for disturbance attenuation in human-human collaborative tasks. , 2011, 2011, 2364-7.		11
159	Human-Like Adaptation of Force and Impedance in Stable and Unstable Interactions. IEEE Transactions on Robotics, 2011, 27, 918-930.	10.3	360
160	Human Motor Learning Through Iterative Model Reference Adaptive Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 2883-2888.	0.4	4
161	Force Field Adaptation Can Be Learned Using Vision in the Absence of Proprioceptive Error. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2011, 19, 298-306.	4.9	34
162	Effect of Grip Force and Training in Unstable Dynamics on Micromanipulation Accuracy. IEEE Transactions on Haptics, 2011, 4, 167-174.	2.7	13

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163	Effects of a robot-assisted training of grasp and pronation/supination in chronic stroke: a pilot study. Journal of NeuroEngineering and Rehabilitation, 2011, 8, 63.	4.6	97
164	Pointing with the wrist: a postural model for Dondersâ€™ law. Experimental Brain Research, 2011, 212, 417-427.	1.5	22
165	Hi5: A versatile dual-wrist device to study human-human interaction and bimanual control. , 2011, , .		25
166	Impedance control is selectively tuned to multiple directions of movement. Journal of Neurophysiology, 2011, 106, 2737-2748.	1.8	29
167	A model of reference trajectory adaptation for interaction with objects of arbitrary shape and impedance. , 2011, , .		2
168	The CNS Stochastically Selects Motor Plan Utilizing Extrinsic and Intrinsic Representations. PLoS ONE, 2011, 6, e24229.	2.5	15
169	Hi5: a versatile dual-wrist device to study human-human interaction and bimanual control. , 2011, , .		1
170	Heterogeneous sensor network for prioritized sensing. , 2011, , .		0
171	Concurrent adaptation of force and impedance in the redundant muscle system. Biological Cybernetics, 2010, 102, 31-44.	1.3	89
172	A Brain Controlled Wheelchair to Navigate in Familiar Environments. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2010, 18, 590-598.	4.9	449
173	Assessing suturing techniques using a virtual reality surgical simulator. Microsurgery, 2010, 30, 479-486.	1.3	33
174	Model-based attenuation of movement artifacts in fMRI. Journal of Neuroscience Methods, 2010, 192, 58-69.	2.5	8
175	A technique to train finger coordination and independence after stroke. Disability and Rehabilitation: Assistive Technology, 2010, 5, 279-287.	2.2	14
176	Motor Memory and Local Minimization of Error and Effort, Not Global Optimization, Determine Motor Behavior. Journal of Neurophysiology, 2010, 104, 382-390.	1.8	79
177	Robot-assisted rehabilitation of hand function. Current Opinion in Neurology, 2010, 23, 661-670.	3.6	232
178	Modelling of human motor control in an unstable task through operational space formulation. , 2010, , .		1
179	Changes in muscle activation patterns following robot-assisted training of hand function after stroke. , 2010, , .		1
180	Force-controlled automatic microassembly of tissue engineering scaffolds. Journal of Micromechanics and Microengineering, 2010, 20, 035001.	2.6	7

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181	Stabilizing unstable object by means of kinematic redundancy. , 2010, 2010, 3698-702.		1
182	Somatosensory cortical activation identified by functional MRI in preterm and term infants. NeuroImage, 2010, 49, 2063-2071.	4.2	102
183	Biomimetic motor behavior for simultaneous adaptation of force, impedance and trajectory in interaction tasks. , 2010, , .		62
184	ReachMAN to help sub-acute patients training reaching and manipulation. , 2010, , .		8
185	Accurate micromanipulation induced by performing in unstable dynamics. , 2010, , .		4
186	Automated microassembly of tissue engineering scaffold. , 2010, , .		1
187	Influence of visual feedback and speed on micromanipulation accuracy. , 2009, 2009, 1188-91.		2
188	Evaluation of a Collaborative Wheelchair System in Cerebral Palsy and Traumatic Brain Injury Users. Neurorehabilitation and Neural Repair, 2009, 23, 494-504.	2.9	20
189	Micromanipulation accuracy in pointing and tracing investigated with a contact-free measurement system. , 2009, 2009, 3960-3.		14
190	ReachMAN: a personal robot to train reaching and manipulation. , 2009, , .		27
191	Dissociating Variability and Effort as Determinants of Coordination. PLoS Computational Biology, 2009, 5, e1000345.	3.2	94
192	The Role of Posture, Magnification, and Grip Force on Microscopic Accuracy. Annals of Biomedical Engineering, 2009, 37, 997-1006.	2.5	36
193	Supplementary motor area and anterior intraparietal area integrate fine-grained timing and force control during precision grip. European Journal of Neuroscience, 2009, 30, 2401-2406.	2.6	37
194	Analysis of pick-and-place, eating and drinking movements for the workspace definition of simple robotic devices. , 2009, , .		14
195	Rehabilitation of grasping and forearm pronation/supination with the Haptic Knob. , 2009, , .		22
196	A system for robot-assisted neuro-rehabilitation of hand function. , 2009, , .		2
197	Force field compensation can be learned without proprioceptive error. IFMBE Proceedings, 2009, , 381-383.	0.3	5
198	Exercises for rehabilitation and assessment of hand motor function with the Haptic Knob. , 2009, , .		5

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199	Opportunities and Challenges in MR-Compatible Robotics. IEEE Engineering in Medicine and Biology Magazine, 2008, 27, 15-22.	0.8	60
200	MRI-Compatible Robotics. IEEE Engineering in Medicine and Biology Magazine, 2008, 27, 12-14.	0.8	44
201	HandCARE: A Cable-Actuated Rehabilitation System to Train Hand Function After Stroke. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2008, 16, 582-591.	4.9	195
202	A Collaborative Wheelchair System. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2008, 16, 161-170.	4.9	85
203	Sensors for Applications in Magnetic Resonance Environments. IEEE/ASME Transactions on Mechatronics, 2008, 13, 335-344.	5.8	56
204	Sparse linear regression for reconstructing muscle activity from human cortical fMRI. NeuroImage, 2008, 42, 1463-1472.	4.2	38
205	Post-stroke training of a pick and place activity in a virtual environment. , 2008, , .		10
206	Microassembly Fabrication of Tissue Engineering Scaffolds With Customized Design. IEEE Transactions on Automation Science and Engineering, 2008, 5, 446-456.	5.2	22
207	A nonlinear elastic path controller for a robotic wheelchair. , 2008, , .		3
208	HandCARE2: A novel cable interface for hand rehabilitation. , 2008, , .		7
209	Impedance control is tuned to multiple directions of movement. , 2008, 2008, 5358-61.		4
210	CNS Learns Stable, Accurate, and Efficient Movements Using a Simple Algorithm. Journal of Neuroscience, 2008, 28, 11165-11173.	3.6	271
211	Collaborative path planning for a robotic wheelchair. Disability and Rehabilitation: Assistive Technology, 2008, 3, 315-324.	2.2	7
212	Is the collaborative wheelchair adapted to Cerebral Palsy and Traumatic Brain Injury subjects?. , 2008, 2008, 1965-8.		0
213	A hybrid ultrasonic motor and electrorheological fluid clutch actuator for force-feedback in MRI/fMRI. , 2008, 2008, 3438-42.		12
214	User evaluation of a collaborative wheelchair system. , 2008, 2008, 1956-60.		4
215	Experiments on collaborative learning with a robotic wheelchair. , 2007, , .		3
216	An elastic path controller for a collaborative wheelchair assistant. , 2007, , .		2

#	ARTICLE	IF	CITATIONS
217	A Cable Driven Robotic System to Train Finger Function After Stroke. , 2007, , .		17
218	Development of a Robot-Assisted Rehabilitation Therapy to train Hand Function for Activities of Daily Living. , 2007, , .		21
219	Evaluation of the Collaborative Wheelchair Assistant System. , 2007, , .		15
220	A Haptic Knob with a Hybrid Ultrasonic Motor and Powder Clutch Actuator. , 2007, , .		24
221	Controlling a wheelchair using a BCI with low information transfer rate. , 2007, , .		39
222	Endpoint Stiffness of the Arm Is Directionally Tuned to Instability in the Environment. Journal of Neuroscience, 2007, 27, 7705-7716.	3.6	255
223	Development of a novel elastic path controller. , 2007, , .		2
224	Controlling a Wheelchair Indoors Using Thought. IEEE Intelligent Systems, 2007, 22, 18-24.	4.0	211
225	Investigation of Motion Guidance With Scooter Cobot and Collaborative Learning. , 2007, 23, 245-255.		15
226	Intuitive Command of Manipulators in Micro-scale Tasks. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	0
227	Analysis and parameter optimization of an elastic path controller. , 2007, , .		0
228	A Haptic Knob for Rehabilitation of Hand Function. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2007, 15, 356-366.	4.9	166
229	Visual Feedback Is Not Necessary for the Learning of Novel Dynamics. PLoS ONE, 2007, 2, e1336.	2.5	82
230	TREMOR PROFILING USING DIGITAL MICROSURGICAL RRE-TRAINER(1E3 Mechanical Analysis & Its Tj ETQq0 0 0 rgBT /Overlock 10 Technology in Biomechanics, 2007, 2007.3, S86.	0.0	0
231	Reflex Contributions to the Directional Tuning of Arm Stiffness. Lecture Notes in Computer Science, 2007, , 913-922.	1.3	0
232	MRI/fMRI-compatible robotic system with force feedback for interaction with human motion. IEEE/ASME Transactions on Mechatronics, 2006, 11, 216-224.	5.8	160
233	A force-feedback control system for micro-assembly. Journal of Micromechanics and Microengineering, 2006, 16, 1861-1868.	2.6	25
234	Learning the dynamics of the external world: Brain inspired learning for robotic applications. International Congress Series, 2006, 1291, 109-112.	0.2	1

#	ARTICLE	IF	CITATIONS
235	Stability and motor adaptation in human arm movements. Biological Cybernetics, 2006, 94, 20-32.	1.3	118
236	Actuation methods for applications in MR environments. Concepts in Magnetic Resonance Part B, 2006, 29B, 191-209.	0.7	92
237	A Haptic Knob for Rehabilitation of Stroke Patients. , 2006, , .		30
238	Hybrid Ultrasonic Motor and Electrorheological Clutch System for MR-Compatible Haptic Rendering. , 2006, , .		7
239	Microrobotics and MEMS-Based Fabrication Techniques for Scaffold-Based Tissue Engineering. Macromolecular Bioscience, 2005, 5, 477-489.	4.1	80
240	Elastic Path Controller for Assistive Devices. , 2005, 2005, 6239-42.		5
241	Shape memory alloy microgripper for robotic microassembly of tissue engineering scaffolds. , 2004, , .		16
242	How are internal models of unstable tasks formed?. , 2004, 2004, 4491-4.		12
243	Dynamics and control of an MRI compatible master-slave system with hydrostatic transmission. , 2004, , .		36
244	A model of force and impedance in human arm movements. Biological Cybernetics, 2004, 90, 368-75.	1.3	121
245	Functional significance of stiffness in adaptation of multijoint arm movements to stable and unstable dynamics. Experimental Brain Research, 2003, 151, 145-157.	1.5	155
246	FABRICATION OF 3-D MICROPARTS FOR THE ASSEMBLY OF SCAFFOLD/CELL CONSTRUCTS IN TISSUE ENGINEERING. International Journal of Computational Engineering Science, 2003, 04, 281-284.	0.1	4
247	Adaptation to Stable and Unstable Dynamics Achieved By Combined Impedance Control and Inverse Dynamics Model. Journal of Neurophysiology, 2003, 90, 3270-3282.	1.8	358
248	Different Mechanisms Involved in Adaptation to Stable and Unstable Dynamics. Journal of Neurophysiology, 2003, 90, 3255-3269.	1.8	115
249	The Learning Cobot. , 2002, , 867.		7
250	Monolithic shape memory alloy microgripper for 3D assembly of tissue engineering scaffolds. , 2001, , .		20
251	The central nervous system stabilizes unstable dynamics by learning optimal impedance. Nature, 2001, 414, 446-449.	27.8	999
252	A method for measuring endpoint stiffness during multi-joint arm movements. Journal of Biomechanics, 2000, 33, 1705-1709.	2.1	148

#	ARTICLE	IF	CITATIONS
253	Learning Complex Tasks Using a Stepwise Approach. Journal of Intelligent and Robotic Systems: Theory and Applications, 1999, 24, 43-68.	3.4	2
254	A modular and sensor-oriented motion planner. Robotica, 1999, 17, 87-95.	1.9	4
255	Quantization of human motions and learning of accurate movements. Biological Cybernetics, 1998, 78, 307-318.	1.3	116
256	Experimental evaluation of nonlinear adaptive controllers. IEEE Control Systems, 1998, 18, 39-47.	0.8	25
257	Evaluation of parametric and nonparametric nonlinear adaptive controllers. Robotica, 1998, 16, 59-73.	1.9	24
258	Experiments in nonlinear adaptive control. , 0, , .		11
259	Adaptive control of the Hexaglide, a 6 dof parallel manipulator. , 0, , .		108
260	Controllers with desired dynamic compensation and their implementation on a 6 DOF parallel manipulator. , 0, , .		1
261	Collaborative wheelchair assistant. , 0, , .		34
262	Robotic micro-assembly of scaffold/cell constructs with a shape memory alloy gripper. , 0, , .		9
263	A robotic teacher of Chinese handwriting. , 0, , .		78
264	Motion guidance experiments with Scooter Cobot. , 0, , .		9
265	An MR compatible robot technology. , 0, , .		49
266	Design of a simple MRI/fMRI compatible force/torque sensor. , 0, , .		41
267	Haptics of Buckling. , 0, , .		0
268	Dynamic Thread for Real-Time Knot-Tying. , 0, , .		17
269	A 2-DOF fMRI compatible haptic interface to investigate the neural control of arm movements. , 0, , .		37
270	Investigation of a Cable Transmission for the Actuation of MR Compatible Haptic Interfaces. , 0, , .		24

#	ARTICLE	IF	CITATIONS
271	Design of a collaborative wheelchair with path guidance assistance. , 0, , .		9
272	Development of an elastic path controller. , 0, , .		10
273	A Brain-Controlled Wheelchair Based on P300 and Path Guidance. , 0, , .		69
274	Active mechatronic interface for haptic perception studies with functional magnetic resonance imaging: compatibility and design criteria. , 0, , .		10
275	A model of force and impedance in human arm movements. Biological Cybernetics, 0, , .	1.3	19
276	The control and training of single motor units in isometric tasks are constrained by a common input signal. ELife, 0, 11, .	6.0	16