Thierry Keller

List of Publications by Year
in descending order

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100 papers	4,091 citations	136740 32 h-index	133063 59 g-index
104 all docs	104 docs citations	104 times ranked	3669 citing authors

#	Article	IF	Citations
1	Optimal multi-field functional electrical stimulation parameters for the â€œdrinking task - reaching phaseâ€•and related upper limb kinematics repeatability in post stroke subjects. Journal of Hand Therapy, 2022, 35, 645-654.	0.7	7
2	MERLIN: Upper-Limb Rehabilitation Robot System for Home Environment. Biosystems and Biorobotics, 2022, , 823-827.	0.2	3
3	Effect of Gel Type and Anode Selection in Ankle Movements Elicited by a Multi-field FES Device. Biosystems and Biorobotics, 2022, , 97-101.	0.2	0
4	Comparison of Configuration Postures for a Foot Drop Multi-field FES Device. Biosystems and Biorobotics, 2022, , 705-710.	0.2	0
5	Design and Development of OECT Logic Circuits for Electrical Stimulation Applications. Applied Sciences (Switzerland), 2022, 12, 3985.	1.3	4
6	Optimal Multifield Functional Electrical Stimulation Parameters for the â€œTurn on the Lightâ€•Task and Related Upper Limb Kinematics Repeatability in Poststroke Subjects. Archives of Physical Medicine and Rehabilitation, 2021, 102, 1180-1190.	0.5	2
7	HoMEcare aRm rehabiLItatioN (MERLIN): telerehabilitation using an unactuated device based on serious games improves the upper limb function in chronic stroke. Journal of NeuroEngineering and Rehabilitation, 2021, 18, 48.	2.4	30
8	Modelling the Component-based Architecture and Safety Contracts of ArmAssist in Papyrus for Robotics. , 2021, , .		2
9	BEAGLEâ€”A Kinematic Sensory System for Objective Hand Function Assessment in Technology-Mediated Rehabilitation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 1817-1826.	2.7	5
10	European evidence-based recommendations for clinical assessment of upper limb in neurorehabilitation (CAULIN): data synthesis from systematic reviews, clinical practice guidelines and expert consensus. Journal of NeuroEngineering and Rehabilitation, 2021, 18, 162.	2.4	22
11	Consensus-Based Core Set of Outcome Measures for Clinical Motor Rehabilitation After Strokeâ€”A Delphi Study. Frontiers in Neurology, 2020, 11, 875.	1.1	54
12	A Systematic Review of International Clinical Guidelines for Rehabilitation of People With Neurological Conditions: What Recommendations Are Made for Upper Limb Assessment?. Frontiers in Neurology, 2019, 10, 567.	1.1	46
13	Standardized Measurement of Quality of Upper Limb Movement After Stroke: Consensus-Based Core Recommendations From the Second Stroke Recovery and Rehabilitation Roundtable. Neurorehabilitation and Neural Repair, 2019, 33, 951-958.	1.4	84
14	A foot drop compensation device based on surface multi-field functional electrical stimulationâ€”Usability study in a clinical environment. Journal of Rehabilitation and Assistive Technologies Engineering, 2019, 6, 205566831986214.	0.6	4
15	Transferrable Expertise From Bionic Arms to Robotic Exoskeletons: Perspectives for Stroke and Duchenne Muscular Dystrophy. IEEE Transactions on Medical Robotics and Bionics, 2019, 1, 88-96.	2.1	15
16	Optimization of Semiautomated Calibration Algorithm of Multichannel Electrotactile Feedback for Myoelectric Hand Prosthesis. Applied Bionics and Biomechanics, 2019, 2019, 1-9.	0.5	14
17	Multichannel Electrotactile Feedback With Spatial and Mixed Coding for Closed-Loop Control of Grasping Force in Hand Prostheses. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 183-195.	2.7	98
18	Short- and Long-Term Learning of Feedforward Control of a Myoelectric Prosthesis with Sensory Feedback by Amputees. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 2133-2145.	2.7	66

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19	Temporal and Spatial Variability of Surface Motor Activation Zones in Hemiplegic Patients During Functional Electrical Stimulation Therapy Sessions. Artificial Organs, 2017, 41, E166-E177.	1.0	11
20	Reinforcement Learning for Hand Grasp with Surface Multi-field Neuroprostheses. Advances in Intelligent Systems and Computing, 2017, , 313-322.	0.5	1
21	Dynamic Stimulation Patterns for Conveying Proprioceptive Information from Multi-DOF Prosthesis. Biosystems and Biorobotics, 2017, , 601-605.	0.2	4
22	Game-Based Assessment in Upper-Limb Post-stroke Telerehabilitation. Biosystems and Biorobotics, 2017, , 413-417.	0.2	6
23	Helping Hand grasp rehabilitation: Preliminary assessment on chronic stroke patients. , 2017, , .		1
24	Novel multi-pad functional electrical stimulation in stroke patients: A single-blind randomized study. NeuroRehabilitation, 2017, 41, 791-800.	0.5	19
25	A decision support system for electrode shaping in multi-pad FES foot drop correction. Journal of NeuroEngineering and Rehabilitation, 2017, 14, 66.	2.4	22
26	ArmAssist Robotic System versus Matched Conventional Therapy for Poststroke Upper Limb Rehabilitation: A Randomized Clinical Trial. BioMed Research International, 2017, 2017, 1-7.	0.9	37
27	Clinical Trial Protocol for Analyzing the Effect of the Intensity of FES-Based Therapy on Post-stroke Foot Drop. Biosystems and Biorobotics, 2017, , 655-659.	0.2	0
28	Evolution of surface motor activation zones in hemiplegic patients during 20 sessions of FES therapy with multi-pad electrodes. European Journal of Translational Myology, 2016, 26, 6059.	0.8	10
29	Electrotactile feedback improves performance and facilitates learning in the routine grasping task. European Journal of Translational Myology, 2016, 26, 6069.	0.8	37
30	Integrated and flexible multichannel interface for electrotactile stimulation. Journal of Neural Engineering, 2016, 13, 046014.	1.8	82
31	Design of a spring-assisted exoskeleton module for wrist and hand rehabilitation. , 2016, 2016, 594-597.		7
32	Evaluation of upper extremity neurorehabilitation using technology: a European Delphi consensus study within the EU COST Action Network on Robotics for Neurorehabilitation. Journal of NeuroEngineering and Rehabilitation, 2016, 13, 86.	2.4	22
33	Neuro-fuzzy models for hand movements induced by functional electrical stimulation in able-bodied and hemiplegic subjects. Medical Engineering and Physics, 2016, 38, 1214-1222.	0.8	7
34	Post-stroke Robotic Upper-Limb Telerehabilitation Using Serious Games to Increase Patient Motivation: First Results from ArmAssist System Clinical Trial. Biosystems and Biorobotics, 2016, , 63-78.	0.2	7
35	Workshop on Transcutaneous Functional Electrical Stimulation. Biosystems and Biorobotics, 2016, , 273-301.	0.2	1
36	Feasibility of Using Neuro-Fuzzy Subject-Specific Models for Functional Electrical Stimulation Induced Hand Movements. IFAC-PapersOnLine, 2015, 48, 321-326.	0.5	2

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37	Recording and assessment of evoked potentials with electrode arrays. Medical and Biological Engineering and Computing, 2015, 53, 857-867.	1.6	3
38	Validating ArmAssist Assessment as outcome measure in upper-limb post-stroke telerehabilitation. , 2015, 2015, 4623-6.		7
39	Multi-pad stimulation device for treating foot drop: Case study. , 2014, , .		3
40	Transcutaneous FES-induced pain maps on post-stroke upper limb: Preliminary study. , 2014, , .		1
41	Gait phase detection optimization based on variational bayesian inference of feedback sensor signal. , 2014, , .		3
42	Serious Games for Assessment and Training in Post-stroke Robotic Upper-limb Telerehabilitation. , 2014, , .		5
43	Improving the match between ability and challenge: Toward a framework for automatic level adaptation in game-based assessment and training. , 2013, 2013, 6650420.		5
44	Multi-Pad Electrode for Effective Grasping: Design. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2013, 21, 648-654.	2.7	54
45	Surfaceâ€distributed lowâ€frequency asynchronous stimulation delays fatigue of stimulated muscles. Muscle and Nerve, 2013, 48, 930-937.	1.0	60
46	Development of a powered mobile module for the ArmAssist home-based telerehabilitation platform. , 2013, 2013, 6650424.		9
47	ArmAssist: An Integrated Solution for Telerehabilitation of Post-stroke Arm Impairment. Biosystems and Biorobotics, 2013, , 951-955.	0.2	2
48	Consistent Arm Rehabilitation from Clinical to Home Environment - Integrating the Universal Haptic Drive into the TeleReha Software Platform. Biosystems and Biorobotics, 2013, , 1013-1017.	0.2	1
49	ArmAssist: Development of a functional prototype for at-home telerehabilitation of post-stroke arm impairment. , 2012, , .		25
50	Automatic determination of parameters for multipad functional electrical stimulation: Application to hand opening and closing. , 2012, 2012, 1859-63.		15
51	sEMG-based detection of poor posture: A feasibility study. , 2012, 2012, 1210-3.		3
52	Neck rotation modulates flexion synergy torques, indicating an ipsilateral reticulospinal source for impairment in stroke. Journal of Neurophysiology, 2012, 108, 3096-3104.	0.9	61
53	A multi-pad electrode based functional electrical stimulation system for restoration of grasp. Journal of NeuroEngineering and Rehabilitation, 2012, 9, 66.	2.4	130
54	Development of computer games for assessment and training in post-stroke arm telerehabilitation. , 2012, 2012, 4571-4.		17

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55	The effect of visual cues on the number and duration of freezing episodes in Parkinson's patients. , 2012, 2012, 4656-9.		21
56	Variable Stiffness Structure for limb attachment. , 2011, 2011, 5975350.		13
57	Absolute position calculation for a desktop mobile rehabilitation robot based on three optical mouse sensors. , 2011, 2011, 2069-72.		6
58	Telerehabilitation: Toward a cost-efficient platform for post-stroke neurorehabilitation. , 2011, 2011, 5975413.		22
59	Taking Sides with Pain â€“ Lateralization aspects Related to Cerebral Processing of Dental Pain. Frontiers in Human Neuroscience, 2011, 5, 12.	1.0	37
60	Electrical stimulation for the suppression of pathological tremor. Medical and Biological Engineering and Computing, 2011, 49, 1187-1193.	1.6	103
61	Detection and removal of stimulation artifacts in electroencephalogram recordings. , 2011, 2011, 7159-62.		14
62	Variable structure pantograph mechanism with spring suspension system for comprehensive upper-limb haptic movement training. Journal of Rehabilitation Research and Development, 2011, 48, 317.	1.6	14
63	The Influence of Electrode Size on Selectivity and Comfort in Transcutaneous Electrical Stimulation of the Forearm. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2010, 18, 255-262.	2.7	72
64	Wearable Neural Prostheses. IEEE Engineering in Medicine and Biology Magazine, 2010, 29, 64-69.	1.1	42
65	A variable structure pantograph mechanism for comprehensive upper extremity haptic movement training. , 2010, 2010, 5859-62.		3
66	Influence on walking dynamics of a gait training device that is connected through a lumbar belt. , 2009, , .		0
67	Cortical and subcortical correlates of functional electrical stimulation of wrist extensor and flexor muscles revealed by fMRI. Human Brain Mapping, 2009, 30, 963-975.	1.9	74
68	Array electrode design for transcutaneous electrical stimulation: A simulation study. Medical Engineering and Physics, 2009, 31, 945-951.	0.8	52
69	A model for transcutaneous current stimulation: simulations and experiments. Medical and Biological Engineering and Computing, 2009, 47, 279-289.	1.6	82
70	Interindividual differences in the perception of dental stimulation and related brain activity. European Journal of Oral Sciences, 2009, 117, 27-33.	0.7	32
71	Brain-computer interface based on high frequency steady-state visual evoked potentials: A feasibility study. , 2009, , .		10
72	Motor Training of Upper Extremity With Functional Electrical Stimulation in Early Stroke Rehabilitation. Neurorehabilitation and Neural Repair, 2009, 23, 184-190.	1.4	67

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73	Power spectral distribution analysis for detection of freezing of gait in patients with Parkinsonâ€™s disease. IFMBE Proceedings, 2009, , 2089-2092.	0.2	7
74	Skin properties and the influence on electrode design for transcutaneous (surface) electrical stimulation. IFMBE Proceedings, 2009, , 492-495.	0.2	4
75	Rehabilitation Robotics for Outpatient Clinical and Domestic Use. IFMBE Proceedings, 2009, , 291-294.	0.2	1
76	Assessment of Finger Forces and Wrist Torques for Functional Grasp Using New Multichannel Textile Neuroprostheses. Artificial Organs, 2008, 32, 634-638.	1.0	18
77	Improving patient motivation in game development for motor deficit rehabilitation. , 2008, , .		163
78	Design and construction of a magnetic resonance compatible multi-injector gas jet delivery system. Review of Scientific Instruments, 2008, 79, 014301.	0.6	5
79	Electrodes for transcutaneous (surface) electrical stimulation. Journal of Automatic Control, 2008, 18, 35-45.	1.0	101
80	New Technologies and Concepts for Rehabilitation in the Acute Phase of Stroke: A Collaborative Matrix. Neurodegenerative Diseases, 2007, 4, 57-69.	0.8	16
81	Dynamic force-sharing in multi-digit task. Clinical Biomechanics, 2006, 21, 138-146.	0.5	15
82	New Multi-Channel Transcutaneous Electrical Stimulation Technology for Rehabilitation. , 2006, 2006, 194-7.		34
83	Modular transcutaneous functional electrical stimulation system. Medical Engineering and Physics, 2005, 27, 81-92.	0.8	81
84	Overcoming Abnormal Joint Torque Patterns in Paretic Upper Extremities Using Triceps Stimulation. Artificial Organs, 2005, 29, 229-232.	1.0	25
85	Transcutaneous functional electrical stimulation for grasping in subjects with cervical spinal cord injury. Spinal Cord, 2005, 43, 1-13.	0.9	112
86	Compex Motion: neuroprosthesis for grasping applications. , 2004, , 197-215.		2
87	Sliding Mode Closed-Loop Control of FES: Controlling the Shank Movement. IEEE Transactions on Biomedical Engineering, 2004, 51, 263-272.	2.5	162
88	A Reliable Gyroscope-Based Gait-Phase Detection Sensor Embedded in a Shoe Insole. IEEE Sensors Journal, 2004, 4, 268-274.	2.4	172
89	Robotic Orthosis Lokomat: A Rehabilitation and Research Tool. Neuromodulation, 2003, 6, 108-115.	0.4	391
90	Neuroprostheses for grasping. Neurological Research, 2002, 24, 443-452.	0.6	149

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91	A NOVEL SLIDING MODE CONTROLLER FOR FUNCTIONAL ELECTRICAL STIMULATION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 199-203.	0.4	5
92	Transcutaneous Functional Electrical Stimulator â€œCompex Motionâ€• Artificial Organs, 2002, 26, 219-223.	1.0	67
93	A reliable gait phase detection system. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2001, 9, 113-125.	2.7	403
94	Functional electrical stimulation for grasping and walking: indications and limitations. Spinal Cord, 2001, 39, 403-412.	0.9	113
95	Surface-stimulation technology for grasping and walking neuroprostheses. IEEE Engineering in Medicine and Biology Magazine, 2001, 20, 82-93.	1.1	119
96	Stability criterion for controlling standing in able-bodied subjects. Journal of Biomechanics, 2000, 33, 1359-1368.	0.9	54
97	Grasping in high lesioned tetraplegic subjects using the EMG controlled neuroprosthesis. NeuroRehabilitation, 1998, 10, 251-255.	0.5	12
98	Grasping in high lesioned tetraplegic subjects using the EMG controlled neuroprosthesis. NeuroRehabilitation, 1998, 10, 251-255.	0.5	17
99	Effective Game use in Neurorehabilitation. Advances in Game-based Learning Book Series, 0, , 683-725.	0.2	27
100	Design of multiâ€pad electrotactile system envisioned as a feedback channel for supernumerary robotic limbs. Artificial Organs, 0, , .	1.0	2