Thierry Keller

List of Publications by Year
in descending order

100	4,091	136950	133252
papers	citations	32 h-index	59 g-index

104	104	104	3669
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A reliable gait phase detection system. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2001, 9, 113-125.	4.9	403
2	Robotic Orthosis Lokomat: A Rehabilitation and Research Tool. Neuromodulation, 2003, 6, 108-115.	0.8	391
3	A Reliable Gyroscope-Based Gait-Phase Detection Sensor Embedded in a Shoe Insole. IEEE Sensors Journal, 2004, 4, 268-274.	4.7	172
4	Improving patient motivation in game development for motor deficit rehabilitation. , 2008, , .		163
5	Sliding Mode Closed-Loop Control of FES: Controlling the Shank Movement. IEEE Transactions on Biomedical Engineering, 2004, 51, 263-272.	4.2	162
6	Neuroprostheses for grasping. Neurological Research, 2002, 24, 443-452.	1.3	149
7	A multi-pad electrode based functional electrical stimulation system for restoration of grasp. Journal of NeuroEngineering and Rehabilitation, 2012, 9, 66.	4.6	130
8	Surface-stimulation technology for grasping and walking neuroprostheses. IEEE Engineering in Medicine and Biology Magazine, 2001, 20, 82-93.	0.8	119
9	Functional electrical stimulation for grasping and walking: indications and limitations. Spinal Cord, 2001, 39, 403-412.	1.9	113
10	Transcutaneous functional electrical stimulation for grasping in subjects with cervical spinal cord injury. Spinal Cord, 2005, 43, 1-13.	1.9	112
11	Electrical stimulation for the suppression of pathological tremor. Medical and Biological Engineering and Computing, 2011, 49, 1187-1193.	2.8	103
12	Electrodes for transcutaneous (surface) electrical stimulation. Journal of Automatic Control, 2008, 18, 35-45.	1.0	101
13	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.	4.9	98
14	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.	2.9	84
15	A model for transcutaneous current stimulation: simulations and experiments. Medical and Biological Engineering and Computing, 2009, 47, 279-289.	2.8	82
16	Integrated and flexible multichannel interface for electrotactile stimulation. Journal of Neural Engineering, 2016, 13, 046014.	3.5	82
17	Modular transcutaneous functional electrical stimulation system. Medical Engineering and Physics, 2005, 27, 81-92.	1.7	81
18	Cortical and subcortical correlates of functional electrical stimulation of wrist extensor and flexor muscles revealed by fMRI. Human Brain Mapping, 2009, 30, 963-975.	3.6	74

#	Article	IF	Citations
19	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.	4.9	72
20	Transcutaneous Functional Electrical Stimulator â€œCompex Motionâ€• Artificial Organs, 2002, 26, 219-223.	1.9	67
21	Motor Training of Upper Extremity With Functional Electrical Stimulation in Early Stroke Rehabilitation. Neurorehabilitation and Neural Repair, 2009, 23, 184-190.	2.9	67
22	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.	4.9	66
23	Neck rotation modulates flexion synergy torques, indicating an ipsilateral reticulospinal source for impairment in stroke. Journal of Neurophysiology, 2012, 108, 3096-3104.	1.8	61
24	Surfaceâ€distributed lowâ€frequency asynchronous stimulation delays fatigue of stimulated muscles. Muscle and Nerve, 2013, 48, 930-937.	2.2	60
25	Stability criterion for controlling standing in able-bodied subjects. Journal of Biomechanics, 2000, 33, 1359-1368.	2.1	54
26	Multi-Pad Electrode for Effective Grasping: Design. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2013, 21, 648-654.	4.9	54
27	Consensus-Based Core Set of Outcome Measures for Clinical Motor Rehabilitation After Strokeâ€”A Delphi Study. Frontiers in Neurology, 2020, 11, 875.	2.4	54
28	Array electrode design for transcutaneous electrical stimulation: A simulation study. Medical Engineering and Physics, 2009, 31, 945-951.	1.7	52
29	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.	2.4	46
30	Wearable Neural Prostheses. IEEE Engineering in Medicine and Biology Magazine, 2010, 29, 64-69.	0.8	42
31	Taking Sides with Pain â€“ Lateralization aspects Related to Cerebral Processing of Dental Pain. Frontiers in Human Neuroscience, 2011, 5, 12.	2.0	37
32	Electrotactile feedback improves performance and facilitates learning in the routine grasping task. European Journal of Translational Myology, 2016, 26, 6069.	1.7	37
33	ArmAssist Robotic System versus Matched Conventional Therapy for Poststroke Upper Limb Rehabilitation: A Randomized Clinical Trial. BioMed Research International, 2017, 2017, 1-7.	1.9	37
34	New Multi-Channel Transcutaneous Electrical Stimulation Technology for Rehabilitation. , 2006, 2006, 194-7.		34
35	Interindividual differences in the perception of dental stimulation and related brain activity. European Journal of Oral Sciences, 2009, 117, 27-33.	1.5	32
36	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.	4.6	30

#	Article	IF	Citations
37	Effective Game use in Neurorehabilitation. Advances in Game-based Learning Book Series, 0, , 683-725.	0.2	27
38	Overcoming Abnormal Joint Torque Patterns in Paretic Upper Extremities Using Triceps Stimulation. Artificial Organs, 2005, 29, 229-232.	1.9	25
39	ArmAssist: Development of a functional prototype for at-home telerehabilitation of post-stroke arm impairment. , 2012, , .		25
40	Telerehabilitation: Toward a cost-efficient platform for post-stroke neurorehabilitation. , 2011, 2011, 5975413.		22
41	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.	4.6	22
42	A decision support system for electrode shaping in multi-pad FES foot drop correction. Journal of NeuroEngineering and Rehabilitation, 2017, 14, 66.	4.6	22
43	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.	4.6	22
44	The effect of visual cues on the number and duration of freezing episodes in Parkinson's patients. , 2012, 2012, 4656-9.		21
45	Novel multi-pad functional electrical stimulation in stroke patients: A single-blind randomized study. NeuroRehabilitation, 2017, 41, 791-800.	1.3	19
46	Assessment of Finger Forces and Wrist Torques for Functional Grasp Using New Multichannel Textile Neuroprostheses. Artificial Organs, 2008, 32, 634-638.	1.9	18
47	Development of computer games for assessment and training in post-stroke arm telerehabilitation. , 2012, 2012, 4571-4.		17
48	Grasping in high lesioned tetraplegic subjects using the EMG controlled neuroprosthesis. NeuroRehabilitation, 1998, 10, 251-255.	1.3	17
49	New Technologies and Concepts for Rehabilitation in the Acute Phase of Stroke: A Collaborative Matrix. Neurodegenerative Diseases, 2007, 4, 57-69.	1.4	16
50	Dynamic force-sharing in multi-digit task. Clinical Biomechanics, 2006, 21, 138-146.	1.2	15
51	Automatic determination of parameters for multipad functional electrical stimulation: Application to hand opening and closing. , 2012, 2012, 1859-63.		15
52	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.	3.2	15
53	Detection and removal of stimulation artifacts in electroencephalogram recordings. , 2011, 2011, 7159-62.		14
54	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

#	Article	IF	Citations
55	Optimization of Semiautomated Calibration Algorithm of Multichannel Electrotactile Feedback for Myoelectric Hand Prosthesis. Applied Bionics and Biomechanics, 2019, 2019, 1-9.	1.1	14
56	Variable Stiffness Structure for limb attachment. , 2011, 2011, 5975350.		13
57	Grasping in high lesioned tetraplegic subjects using the EMG controlled neuroprosthesis. NeuroRehabilitation, 1998, 10, 251-255.	1.3	12
58	Temporal and Spatial Variability of Surface Motor Activation Zones in Hemiplegic Patients During Functional Electrical Stimulation Therapy Sessions. Artificial Organs, 2017, 41, E166-E177.	1.9	11
59	Brain-computer interface based on high frequency steady-state visual evoked potentials: A feasibility study. , 2009, , .		10
60	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.	1.7	10
61	Development of a powered mobile module for the ArmAssist home-based telerehabilitation platform. , 2013, 2013, 6650424.		9
62	Validating ArmAssist Assessment as outcome measure in upper-limb post-stroke telerehabilitation. , 2015, 2015, 4623-6.		7
63	Design of a spring-assisted exoskeleton module for wrist and hand rehabilitation. , 2016, 2016, 594-597.		7
64	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.	1.7	7
65	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.	0.3	7
66	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.	1.5	7
67	Power spectral distribution analysis for detection of freezing of gait in patients with Parkinsonâ€™s disease. IFMBE Proceedings, 2009, , 2089-2092.	0.3	7
68	Absolute position calculation for a desktop mobile rehabilitation robot based on three optical mouse sensors. , 2011, 2011, 2069-72.		6
69	Game-Based Assessment in Upper-Limb Post-stroke Telerehabilitation. Biosystems and Biorobotics, 2017, , 413-417.	0.3	6
70	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
71	Design and construction of a magnetic resonance compatible multi-injector gas jet delivery system. Review of Scientific Instruments, 2008, 79, 014301.	1.3	5
72	Improving the match between ability and challenge: Toward a framework for automatic level adaptation in game-based assessment and training. , 2013, 2013, 6650420.		5

#	Article	IF	Citations
73	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.	4.9	5
74	Serious Games for Assessment and Training in Post-stroke Robotic Upper-limb Telerehabilitation. , 2014, , .		5
75	Dynamic Stimulation Patterns for Conveying Proprioceptive Information from Multi-DOF Prosthesis. Biosystems and Biorobotics, 2017, , 601-605.	0.3	4
76	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.	0.9	4
77	Skin properties and the influence on electrode design for transcutaneous (surface) electrical stimulation. IFMBE Proceedings, 2009, , 492-495.	0.3	4
78	Design and Development of OECT Logic Circuits for Electrical Stimulation Applications. Applied Sciences (Switzerland), 2022, 12, 3985.	2.5	4
79	A variable structure pantograph mechanism for comprehensive upper extremity haptic movement training. , 2010, 2010, 5859-62.		3
80	sEMG-based detection of poor posture: A feasibility study. , 2012, 2012, 1210-3.		3
81	Multi-pad stimulation device for treating foot drop: Case study. , 2014, , .		3
82	Gait phase detection optimization based on variational bayesian inference of feedback sensor signal. , 2014, , .		3
83	Recording and assessment of evoked potentials with electrode arrays. Medical and Biological Engineering and Computing, 2015, 53, 857-867.	2.8	3
84	MERLIN: Upper-Limb Rehabilitation Robot System for Home Environment. Biosystems and Biorobotics, 2022, , 823-827.	0.3	3
85	Compex Motion: neuroprosthesis for grasping applications. , 2004, , 197-215.		2
86	Feasibility of Using Neuro-Fuzzy Subject-Specific Models for Functional Electrical Stimulation Induced Hand Movements. IFAC-PapersOnLine, 2015, 48, 321-326.	0.9	2
87	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.	0.9	2
88	Modelling the Component-based Architecture and Safety Contracts of ArmAssist in Papyrus for Robotics. , 2021, , .		2
89	ArmAssist: An Integrated Solution for Telerehabilitation of Post-stroke Arm Impairment. Biosystems and Biorobotics, 2013, , 951-955.	0.3	2
90	Design of multiâ€pad electrotactile system envisioned as a feedback channel for supernumerary robotic limbs. Artificial Organs, 0, , .	1.9	2

#	Article	IF	Citations
91	Transcutaneous FES-induced pain maps on post-stroke upper limb: Preliminary study. , 2014, , .		1
92	Reinforcement Learning for Hand Grasp with Surface Multi-field Neuroprostheses. Advances in Intelligent Systems and Computing, 2017, , 313-322.	0.6	1
93	Helping Hand grasp rehabilitation: Preliminary assessment on chronic stroke patients. , 2017, , .		1
94	Rehabilitation Robotics for Outpatient Clinical and Domestic Use. IFMBE Proceedings, 2009, , 291-294.	0.3	1
95	Consistent Arm Rehabilitation from Clinical to Home Environment - Integrating the Universal Haptic Drive into the TeleReha Software Platform. Biosystems and Biorobotics, 2013, , 1013-1017.	0.3	1
96	Workshop on Transcutaneous Functional Electrical Stimulation. Biosystems and Biorobotics, 2016, , 273-301.	0.3	1
97	Influence on walking dynamics of a gait training device that is connected through a lumbar belt. , 2009, , .		0
98	Effect of Gel Type and Anode Selection in Ankle Movements Elicited by a Multi-field FES Device. Biosystems and Biorobotics, 2022, , 97-101.	0.3	0
99	Comparison of Configuration Postures for a Foot Drop Multi-field FES Device. Biosystems and Biorobotics, 2022, , 705-710.	0.3	0
100	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.	0.3	0