

Simona Ferrante

List of Publications by Year in descending order

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Version: 2024-02-01

111
papers

2,680
citations

186265

28
h-index

223800

46
g-index

118
all docs

118
docs citations

118
times ranked

3387
citing authors

#	ARTICLE	IF	CITATIONS
1	Active self-correction and task-oriented exercises reduce spinal deformity and improve quality of life in subjects with mild adolescent idiopathic scoliosis. Results of a randomised controlled trial. <i>European Spine Journal</i> , 2014, 23, 1204-1214.	2.2	183
2	A Novel Adaptive, Real-Time Algorithm to Detect Gait Events From Wearable Sensors. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2015, 23, 413-422.	4.9	129
3	Cycling Induced by Electrical Stimulation Improves Motor Recovery in Postacute Hemiparetic Patients. <i>Stroke</i> , 2011, 42, 1068-1073.	2.0	116
4	MUNDUS project: Multimodal Neuroprosthesis for daily Upper limb Support. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2013, 10, 66.	4.6	115
5	Effect of a Long-lasting Multidisciplinary Program on Disability and Fear-Avoidance Behaviors in Patients With Chronic Low Back Pain: [RETRACTED]. <i>Clinical Journal of Pain</i> , 2013, 29, 929-938.	1.9	99
6	Management of catastrophising and kinesiophobia improves rehabilitation after fusion for lumbar spondylolisthesis and stenosis. A randomised controlled trial. <i>European Spine Journal</i> , 2014, 23, 87-95.	2.2	96
7	Re-thinking the role of motor cortex: Context-sensitive motor outputs?. <i>NeuroImage</i> , 2014, 91, 366-374.	4.2	81
8	A multidisciplinary rehabilitation programme improves disability, kinesiophobia and walking ability in subjects with chronic low back pain: results of a randomised controlled pilot study. <i>European Spine Journal</i> , 2014, 23, 2105-2113.	2.2	74
9	A Personalized Multi-Channel FES Controller Based on Muscle Synergies to Support Gait Rehabilitation after Stroke. <i>Frontiers in Neuroscience</i> , 2016, 10, 425.	2.8	73
10	Development of the Italian version of the knee injury and osteoarthritis outcome score for patients with knee injuries: cross-cultural adaptation, dimensionality, reliability, and validity. <i>Osteoarthritis and Cartilage</i> , 2012, 20, 330-335.	1.3	66
11	Home-Based Functional Exercises Aimed at Managing Kinesiophobia Contribute to Improving Disability and Quality of Life of Patients Undergoing Total Knee Arthroplasty: A Randomized Controlled Trial. <i>Archives of Physical Medicine and Rehabilitation</i> , 2013, 94, 231-239.	0.9	64
12	Cycling Induced by Electrical Stimulation Improves Muscle Activation and Symmetry During Pedaling in Hemiparetic Patients. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2012, 20, 320-330.	4.9	62
13	A biofeedback cycling training to improve locomotion: a case series study based on gait pattern classification of 153 chronic stroke patients. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2011, 8, 47.	4.6	61
14	A myocontrolled neuroprosthesis integrated with a passive exoskeleton to support upper limb activities. <i>Journal of Electromyography and Kinesiology</i> , 2014, 24, 307-317.	1.7	58
15	Development of the Italian Version of the Neck Disability Index. <i>Spine</i> , 2012, 37, E1038-E1044.	2.0	57
16	Responsiveness and Minimal Important Changes for the Knee Injury and Osteoarthritis Outcome Score in Subjects Undergoing Rehabilitation After Total Knee Arthroplasty. <i>American Journal of Physical Medicine and Rehabilitation</i> , 2013, 92, 864-870.	1.4	53
17	Cognitive-behavioural treatment for subacute and chronic neck pain. <i>The Cochrane Library</i> , 2016, 2016, CD010664.	2.8	49
18	Tuning of Muscle Synergies During Walking Along Rectilinear and Curvilinear Trajectories in Humans. <i>Annals of Biomedical Engineering</i> , 2017, 45, 1204-1218.	2.5	47

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19	Artificial neural network EMG classifier for functional hand grasp movements prediction. <i>Journal of International Medical Research</i> , 2017, 45, 1831-1847.	1.0	40
20	Responsiveness and minimal clinically important changes for the Tampa Scale of Kinesiophobia after lumbar fusion during cognitive behavioral rehabilitation. <i>European Journal of Physical and Rehabilitation Medicine</i> , 2017, 53, 351-358.	2.2	40
21	Can FES-augmented active cycling training improve locomotion in post-acute elderly stroke patients?. <i>European Journal of Translational Myology</i> , 2016, 26, 6063.	1.7	34
22	Functional and usability assessment of a robotic exoskeleton arm to support activities of daily life. <i>Robotica</i> , 2014, 32, 1213-1224.	1.9	33
23	Neuro-Mechanics of Recumbent Leg Cycling in Post-Acute Stroke Patients. <i>Annals of Biomedical Engineering</i> , 2016, 44, 3238-3251.	2.5	32
24	How balance task-specific training contributes to improving physical function in older subjects undergoing rehabilitation following hip fracture: a randomized controlled trial. <i>Clinical Rehabilitation</i> , 2018, 32, 340-351.	2.2	32
25	Design of a Symmetry Controller for Cycling Induced by Electrical Stimulation: Preliminary Results on Post-acute Stroke Patients. <i>Artificial Organs</i> , 2010, 34, 663-667.	1.9	31
26	Changes in leg cycling muscle synergies after training augmented by functional electrical stimulation in subacute stroke survivors: a pilot study. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2020, 17, 35.	4.6	30
27	Cycling, a tool for locomotor recovery after motor lesions?. <i>NeuroRehabilitation</i> , 2008, 23, 67-80.	1.3	29
28	Reliability of spatial-temporal gait parameters during dual-task interference in people with multiple sclerosis. A cross-sectional study. <i>Gait and Posture</i> , 2014, 40, 715-718.	1.4	29
29	Measurement properties of translated versions of the Scoliosis Research Society-22 Patient Questionnaire, SRS-22: a systematic review. <i>Quality of Life Research</i> , 2015, 24, 1981-1998.	3.1	29
30	Responsiveness of the Tampa Scale of Kinesiophobia in Italian subjects with chronic low back pain undergoing motor and cognitive rehabilitation. <i>European Spine Journal</i> , 2016, 25, 2882-2888.	2.2	28
31	Surface Electromyographic Mapping of the Orbicularis Oculi Muscle for Real-Time Blink Detection. <i>JAMA Facial Plastic Surgery</i> , 2014, 16, 335-342.	2.1	26
32	Task-oriented exercises and early full weight-bearing contribute to improving disability after total hip replacement: a randomized controlled trial. <i>Clinical Rehabilitation</i> , 2014, 28, 658-668.	2.2	26
33	Cognitive-behavioral Treatment for Subacute and Chronic Neck Pain. <i>Spine</i> , 2015, 40, 1495-1504.	2.0	26
34	Simultaneous measurements of kinematics and fMRI: compatibility assessment and case report on recovery evaluation of one stroke patient. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2010, 7, 49.	4.6	25
35	Feedback control of arm movements using Neuro-Muscular Electrical Stimulation (NMES) combined with a lockable, passive exoskeleton for gravity compensation. <i>Frontiers in Neuroscience</i> , 2014, 8, 262.	2.8	25
36	Responsiveness and minimal important changes for the Neck Disability Index and the Neck Pain Disability Scale in Italian subjects with chronic neck pain. <i>European Spine Journal</i> , 2015, 24, 2821-2827.	2.2	25

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37	A Hybrid Robotic System for Arm Training of Stroke Survivors: Concept and First Evaluation. IEEE Transactions on Biomedical Engineering, 2019, 66, 3290-3300.	4.2	25
38	A Robotic System with EMG-Triggered Functional Electrical Stimulation for Restoring Arm Functions in Stroke Survivors. Neurorehabilitation and Neural Repair, 2021, 35, 334-345.	2.9	25
39	A Design Methodology for Medical Processes. Applied Clinical Informatics, 2016, 07, 191-210.	1.7	24
40	The 27-Item Coping Strategies Questionnaire "Revised: Confirmatory Factor Analysis, Reliability and Validity in Italian-Speaking Subjects with Chronic Pain. Pain Research and Management, 2014, 19, 153-158.	1.8	23
41	Supervised Digital Neuropsychological Tests for Cognitive Decline in Older Adults: Usability and Clinical Validity Study. JMIR MHealth and UHealth, 2020, 8, e17963.	3.7	22
42	A Tablet App for Handwriting Skill Screening at the Preliteracy Stage: Instrument Validation Study. JMIR Serious Games, 2020, 8, e20126.	3.1	21
43	Error mapping controller: a closed loop neuroprosthesis controlled by artificial neural networks. Journal of NeuroEngineering and Rehabilitation, 2006, 3, 25.	4.6	20
44	Reliability, validity and responsiveness of the cross-culturally adapted Italian version of the core outcome measures index (COMI) for the neck. European Spine Journal, 2014, 23, 863-872.	2.2	20
45	Development of the Tampa Scale of Kinesiophobia for Parkinson's disease. International Journal of Rehabilitation Research, 2015, 38, 113-120.	1.3	20
46	Modeling stroke rehabilitation processes using the Unified Modeling Language (UML). Computers in Biology and Medicine, 2013, 43, 1390-1401.	7.0	19
47	Monitoring muscle metabolic indexes by time-domain near-infrared spectroscopy during knee flex-extension induced by functional electrical stimulation. Journal of Biomedical Optics, 2009, 14, 044011.	2.6	16
48	A mobile app to transparently distinguish single- from dual-task walking for the ecological monitoring of age-related changes in daily-life gait. Gait and Posture, 2021, 86, 27-32.	1.4	16
49	The NeckPix®: development of an evaluation tool for assessing kinesiophobia in subjects with chronic neck pain. European Spine Journal, 2015, 24, 72-79.	2.2	15
50	"Regent Suit"™ training improves recovery of motor and daily living activities in subjects with subacute stroke: a randomized controlled trial. Clinical Rehabilitation, 2013, 27, 792-802.	2.2	14
51	An Automatic Identification Procedure to Promote the use of FES-Cycling Training for Hemiparetic Patients. Journal of Healthcare Engineering, 2014, 5, 275-292.	1.9	14
52	Development of the Italian version of the trunk impairment scale in subjects with acute and chronic stroke. Cross-cultural adaptation, reliability, validity and responsiveness. Disability and Rehabilitation, 2019, 41, 66-73.	1.8	14
53	Metrological characterization of a cycle-ergometer to optimize the cycling induced by functional electrical stimulation on patients with stroke. Medical Engineering and Physics, 2010, 32, 339-348.	1.7	13
54	An EMG-controlled neuroprosthesis for daily upper limb support: A preliminary study. , 2011, 2011, 4259-62.		13

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55	Chronic Pain Acceptance Questionnaire. Spine, 2013, 38, E824-E831.	2.0	13
56	The MOVECARE Project: Home-based Monitoring of Frailty. , 2019, , .		13
57	A multimodal training with visual biofeedback in subacute stroke survivors: a randomized controlled trial. European Journal of Physical and Rehabilitation Medicine, 2020, 56, 24-33.	2.2	13
58	A Smart Ink Pen for the Ecological Assessment of Age-Related Changes in Writing and Tremor Features. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-13.	4.7	12
59	Cycling, a tool for locomotor recovery after motor lesions?. NeuroRehabilitation, 2008, 23, 67-80.	1.3	12
60	Does Reinforcement Learning outperform PID in the control of FES-induced elbow flex-extension?. , 2018, , .		11
61	Development of the Italian version of the 42-item Chronic Pain Coping Inventory, CPCI-I: cross-cultural adaptation, factor analysis, reliability and validity. Quality of Life Research, 2013, 22, 1459-1465.	3.1	10
62	The Italian version of the Pain Beliefs and Perceptions Inventory: cross-cultural adaptation, factor analysis, reliability and validity. Quality of Life Research, 2014, 23, 1789-1795.	3.1	10
63	Intra and inter-session reliability of rapid Transcranial Magnetic Stimulation stimulus-response curves of tibialis anterior muscle in healthy older adults. PLoS ONE, 2017, 12, e0184828.	2.5	10
64	Efficacy of two brief cognitive-behavioral rehabilitation programs for chronic neck pain: results of a randomized controlled pilot study. European Journal of Physical and Rehabilitation Medicine, 2019, 54, 890-899.	2.2	10
65	Opportunities to improve feasibility, effectiveness and costs associated with a total joint replacements high-volume hospital registry. Computers in Biology and Medicine, 2020, 121, 103775.	7.0	10
66	Investigating the effects of COVID-19 lockdown on Italian children and adolescents with and without neurodevelopmental disorders: a cross-sectional study. Current Psychology, 2023, 42, 8615-8631.	2.8	10
67	A novel biofeedback cycling training to improve gait symmetry in stroke patients: A case series study. , 2011, 2011, 5975495.		9
68	Evaluating the Acceptability of Assistive Robots for Early Detection of Mild Cognitive Impairment. , 2019, , .		9
69	Validity of digital Trail Making Test and Bells Test in elderlies. , 2019, , .		9
70	Functional electrical stimulation controlled by artificial neural networks: pilot experiments with simple movements are promising for rehabilitation applications. Functional Neurology, 2004, 19, 243-52.	1.3	9
71	Integrating Social Assistive Robots, IoT, Virtual Communities and Smart Objects to Assist at-Home Independently Living Elders: the MoveCare Project. International Journal of Social Robotics, 2023, 15, 517-545.	4.6	9
72	The Effect of Using Variable Frequency Trains During Functional Electrical Stimulation Cycling. Neuromodulation, 2008, 11, 216-226.	0.8	8

#	ARTICLE	IF	CITATIONS
73	fMRI brain mapping during motion capture and FES induced motor tasks: Signal to noise ratio assessment. <i>Medical Engineering and Physics</i> , 2011, 33, 1027-1032.	1.7	8
74	Is the Brief-BESTest Brief Enough? Suggested Modifications Based on Structural Validity and Internal Consistency. <i>Physical Therapy</i> , 2019, 99, 1562-1573.	2.4	8
75	Does cycling induced by functional electrical stimulation enhance motor recovery in the subacute phase after stroke? A systematic review and meta-analysis. <i>Clinical Rehabilitation</i> , 2020, 34, 1341-1354.	2.2	8
76	A multi-channel biomimetic neuroprosthesis to support treadmill gait training in stroke patients. , 2015, 2015, 7159-62.		7
77	Validity and usability of a smart ballâ€œdriven serious game to monitor grip strength in independent elderlyes. <i>Health Informatics Journal</i> , 2020, 26, 1952-1968.	2.1	7
78	Digital Tools for Handwriting Proficiency Evaluation in Children. , 2021, , .		7
79	Biomimetic NMES controller for arm movements supported by a passive exoskeleton. , 2012, 2012, 1888-91.		6
80	Responsiveness and Minimal Important Changes of the Western Ontario and McMaster Universities Osteoarthritis Index in Subjects Undergoing Rehabilitation Following Hip Fracture. <i>American Journal of Physical Medicine and Rehabilitation</i> , 2017, 96, 321-326.	1.4	6
81	StimTrack: An open-source software for manual transcranial magnetic stimulation coil positioning. <i>Journal of Neuroscience Methods</i> , 2018, 293, 97-104.	2.5	6
82	A Tablet-Based App to Discriminate Children at Potential Risk of Handwriting Alterations in a Preliteracy Stage. , 2020, 2020, 5856-5859.		6
83	A Virtual Caregiver for Assisted Daily Living of Pre-frail Users. <i>Lecture Notes in Computer Science</i> , 2020, , 176-189.	1.3	6
84	Digitalized Cognitive Assessment mediated by a Virtual Caregiver. , 2018, , .		6
85	Self-reported impact of the COVID-19 pandemic and lockdown on young patients with tic disorders: findings from a caseâ€œcontrol study. <i>Neurological Sciences</i> , 2022, 43, 3497-3501.	1.9	6
86	EMG-Controlled Robotic Hand Rehabilitation Device for Domestic Training. <i>IFMBE Proceedings</i> , 2016, , 644-648.	0.3	5
87	Volitional cycling augmented by functional electrical stimulation in hemiparetic adolescents: A case series study. <i>Journal of Automatic Control</i> , 2013, 21, 37-42.	1.0	5
88	The reliability of gait parameters captured via instrumented walkways: a systematic review and meta-analysis. <i>European Journal of Physical and Rehabilitation Medicine</i> , 2022, 58, .	2.2	5
89	An Adaptive Real-Time Algorithm to Detect Gait Events Using Inertial Sensors. <i>IFMBE Proceedings</i> , 2014, , 1799-1802.	0.3	4
90	Artificial Neural-Network EMG Classifier for Hand Movements Prediction. <i>IFMBE Proceedings</i> , 2016, , 640-643.	0.3	4

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91	Functional Electrical Stimulation and Its Use During Cycling for the Rehabilitation of Individuals with Stroke. <i>Biosystems and Biorobotics</i> , 2018, , 293-306.	0.3	3
92	IoT ink pen for ecological monitoring of daily life handwriting*. , 2020, 2020, 5749-5752.		3
93	Development of the Italian version of the Pain Stages of Change Questionnaire in patients with chronic low back pain. <i>International Journal of Rehabilitation Research</i> , 2014, 37, 205-211.	1.3	2
94	Neuro-mechanics of muscle coordination during recumbent pedaling in post-acute stroke patients. , 2015, 2015, 246-9.		2
95	Control system for neuro-prostheses integrating induced and volitional effort—This work was partially funded by the German Federal Ministry of Education and Research (BMBF) within the project BeMobil (FKZ 16SV7069K) and by European project RETRAINER (Horizon 2020, Research and Innovation) Tj ETQq1 1 0.7843 14 rgBT /O	0.9	2
96	Shape Analysis of Bicipital Contraction by Means of RGB-D Sensor, Parallel Transport and Trajectory Analysis. <i>IFMBE Proceedings</i> , 2016, , 634-639.	0.3	2
97	A Computational Model of the Cerebellum to Simulate Cortical Degeneration During a Pavlovian Associative Paradigm. <i>IFMBE Proceedings</i> , 2016, , 1069-1074.	0.3	2
98	Responsiveness and Minimal Important Changes of the Scoliosis Research Society-22 Patient Questionnaire in Subjects With Mild Adolescent and Moderate Adult Idiopathic Scoliosis Undergoing Multidisciplinary Rehabilitation. <i>Spine</i> , 2017, 42, E672-E679.	2.0	2
99	Co-activation and eEMG-feedback for Restoring Hand-Functions. , 2019, , .		2
100	A Community-Based Activity Center to Promote Social Engagement and Counteract Decline of Elders Living Independently. <i>Lecture Notes in Computer Science</i> , 2021, , 388-422.	1.3	2
101	Technical validation of an integrated robotic hand rehabilitation device: Finger independent movement, EMG control, and EEG-based biofeedback. , 2016, , .		1
102	Neural and Physiological Measures to Classify User's Intention and Control Exoskeletons for Rehabilitation or Assistance: The Experience @NearLab. <i>Mechanisms and Machine Science</i> , 2018, , 735-745.	0.5	1
103	Design of Myocontrolled Neuroprosthesis. <i>Advances in Medical Technologies and Clinical Practice Book Series</i> , 0, , 275-303.	0.3	1
104	Monitoring muscle metabolic indexes by time-domain near infrared spectroscopy during knee flex-extension induced by functional electrical stimulation. , 2007, , .		0
105	Measurement of the local muscular metabolism by time-domain near infrared spectroscopy during knee flex-extension induced by functional electrical stimulation. , 2009, , .		0
106	Simultaneous measures of kinematics and fMRI: relation between movement parameters and activation maps in healthy subjects. , 2010, , .		0
107	RCT Design for the Assessment of Rehabilitation Treatments: The Case Study of Post-stroke Rehabilitation. <i>Biosystems and Biorobotics</i> , 2018, , 29-45.	0.3	0
108	A Tablet-based Application to Study the Speed-Accuracy Tradeoff in Handwriting throughout Lifespan. , 2019, , .		0

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109	A Closed Loop Neural Scheme to Control Knee Flex-Extension Induced by Functional Electrical Stimulation: Simulation Study and Experimental Test on a Paraplegic Subject. <i>Studies in Computational Intelligence</i> , 2008, , 397-419.	0.9	0
110	Does Cycling Training Augmented by Functional Electrical Stimulation Impact on Muscle Synergies in Post-acute Stroke Patients?. <i>Biosystems and Biorobotics</i> , 2019, , 334-338.	0.3	0
111	Highlights from the IFESS 2021 conferences. <i>Artificial Organs</i> , 2022, 46, 521-524.	1.9	0