Simona Ferrante

List of Publications by Year in descending order

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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	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
2	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
3	The reliability of gait parameters captured via instrumented walkways: a systematic review and meta-analysis. European Journal of Physical and Rehabilitation Medicine, 2022, 58, .	2.2	5
4	Highlights from the IFESS 2021 conferences. Artificial Organs, 2022, 46, 521-524.	1.9	0
5	Self-reported impact of the COVID-19 pandemic and lockdown on young patients with tic disorders: findings from a caseâ€“control study. Neurological Sciences, 2022, 43, 3497-3501.	1.9	6
6	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
7	A Robotic System with EMG-Triggered Functional Eletrical Stimulation for Restoring Arm Functions in Stroke Survivors. Neurorehabilitation and Neural Repair, 2021, 35, 334-345.	2.9	25
8	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
9	Digital Tools for Handwriting Proficiency Evaluation in Children. , 2021, , .		7
10	A Community-Based Activity Center toÂPromote Social Engagement andÂCounteract Decline of Elders LivingÂIndependently. Lecture Notes in Computer Science, 2021, , 388-422.	1.3	2
11	IoT ink pen for ecological monitoring of daily life handwriting*. , 2020, 2020, 5749-5752.		3
12	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
13	A Tablet-Based App to Discriminate Children at Potential Risk of Handwriting Alterations in a Preliteracy Stage. , 2020, 2020, 5856-5859.		6
14	Does cycling induced by functional electrical stimulation enhance motor recovery in the subacute phase after stroke? A systematic review and meta-analysis. Clinical Rehabilitation, 2020, 34, 1341-1354.	2.2	8
15	Changes in leg cycling muscle synergies after training augmented by functional electrical stimulation in subacute stroke survivors: a pilot study. Journal of NeuroEngineering and Rehabilitation, 2020, 17, 35.	4.6	30
16	Validity and usability of a smart ballâ€“driven serious game to monitor grip strength in independent elderlies. Health Informatics Journal, 2020, 26, 1952-1968.	2.1	7
17	A Virtual Caregiver for Assisted Daily Living of Pre-frail Users. Lecture Notes in Computer Science, 2020, , 176-189.	1.3	6
18	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

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19	A Tablet App for Handwriting Skill Screening at the Preliteracy Stage: Instrument Validation Study. JMIR Serious Games, 2020, 8, e20126.	3.1	21
20	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
21	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
22	Is the Brief-BESTest Brief Enough? Suggested Modifications Based on Structural Validity and Internal Consistency. Physical Therapy, 2019, 99, 1562-1573.	2.4	8
23	The MOVECARE Project: Home-based Monitoring of Frailty. , 2019, , .		13
24	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
25	A Tablet-based Application to Study the Speed-Accuracy Tradeoff in Handwriting throughout Lifespan. , 2019, , .		0
26	Evaluating the Acceptability of Assistive Robots for Early Detection of Mild Cognitive Impairment. , 2019, , .		9
27	Co-activation and eEMG-feedback for Restoring Hand-Functions. , 2019, , .		2
28	Validity of digital Trail Making Test and Bells Test in elderlies. , 2019, , .		9
29	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
30	Does Cycling Training Augmented by Functional Electrical Stimulation Impact on Muscle Synergies in Post-acute Stroke Patients?. Biosystems and Biorobotics, 2019, , 334-338.	0.3	0
31	RCT Design for the Assessment of Rehabilitation Treatments: The Case Study of Post-stroke Rehabilitation. Biosystems and Biorobotics, 2018, , 29-45.	0.3	0
32	Functional Electrical Stimulation and Its Use During Cycling for the Rehabilitation of Individuals with Stroke. Biosystems and Biorobotics, 2018, , 293-306.	0.3	3
33	StimTrack: An open-source software for manual transcranial magnetic stimulation coil positioning. Journal of Neuroscience Methods, 2018, 293, 97-104.	2.5	6
34	Neural and Physiological Measures to Classify Userâ€™s Intention and Control Exoskeletons for Rehabilitation or Assistance: The Experience @NearLab. Mechanisms and Machine Science, 2018, , 735-745.	0.5	1
35	How balance task-specific training contributes to improving physical function in older subjects undergoing rehabilitation following hip fracture: a randomized controlled trial. Clinical Rehabilitation, 2018, 32, 340-351.	2.2	32
36	Does Reinforcement Learning outperform PID in the control of FES-induced elbow flex-extension?. , 2018, , .		11

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37	Digitalized Cognitive Assessment mediated by a Virtual Caregiver. , 2018, , .		6
38	Tuning of Muscle Synergies During Walking Along Rectilinear and Curvilinear Trajectories in Humans. Annals of Biomedical Engineering, 2017, 45, 1204-1218.	2.5	47
39	Responsiveness and Minimal Important Changes of the Western Ontario and McMaster Universities Osteoarthritis Index in Subjects Undergoing Rehabilitation Following Hip Fracture. American Journal of Physical Medicine and Rehabilitation, 2017, 96, 321-326.	1.4	6
40	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. Spine, 2017, 42, E672-E679.	2.0	2
41	Artificial neural network EMG classifier for functional hand grasp movements prediction. Journal of International Medical Research, 2017, 45, 1831-1847.	1.0	40
42	Responsiveness and minimal clinically important changes for the Tampa Scale of Kinesiophobia after lumbar fusion during cognitive behavioral rehabilitation. European Journal of Physical and Rehabilitation Medicine, 2017, 53, 351-358.	2.2	40
43	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
44	Cognitive-behavioural treatment for subacute and chronic neck pain. The Cochrane Library, 2016, 2016, CD010664.	2.8	49
45	Can FES-augmented active cycling training improve locomotion in post-acute elderly stroke patients?. European Journal of Translational Myology, 2016, 26, 6063.	1.7	34
46	A Design Methodology for Medical Processes. Applied Clinical Informatics, 2016, 07, 191-210.	1.7	24
47	A Personalized Multi-Channel FES Controller Based on Muscle Synergies to Support Gait Rehabilitation after Stroke. Frontiers in Neuroscience, 2016, 10, 425.	2.8	73
48	Shape Analysis of Bicipital Contraction by Means of RGB-D Sensor, Parallel Transport and Trajectory Analysis. IFMBE Proceedings, 2016, , 634-639.	0.3	2
49	Artificial Neural-Network EMG Classifier for Hand Movements Prediction. IFMBE Proceedings, 2016, , 640-643.	0.3	4
50	EMG-Controlled Robotic Hand Rehabilitation Device for Domestic Training. IFMBE Proceedings, 2016, , 644-648.	0.3	5
51	A Computational Model of the Cerebellum to Simulate Cortical Degeneration During a Pavlovian Associative Paradigm. IFMBE Proceedings, 2016, , 1069-1074.	0.3	2
52	Technical validation of an integrated robotic hand rehabilitation device: Finger independent movement, EMG control, and EEG-based biofeedback. , 2016, , .		1
53	Neuro-Mechanics of Recumbent Leg Cycling in Post-Acute Stroke Patients. Annals of Biomedical Engineering, 2016, 44, 3238-3251.	2.5	32
54	Responsiveness of the Tampa Scale of Kinesiophobia in Italian subjects with chronic low back pain undergoing motor and cognitive rehabilitation. European Spine Journal, 2016, 25, 2882-2888.	2.2	28

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55	Neuro-mechanics of muscle coordination during recumbent pedaling in post-acute stroke patients. , 2015, 2015, 246-9.		2
56	Cognitive-behavioral Treatment for Subacute and Chronic Neck Pain. Spine, 2015, 40, 1495-1504.	2.0	26
57	Development of the Tampa Scale of Kinesiophobia for Parkinsonâ€™s disease. International Journal of Rehabilitation Research, 2015, 38, 113-120.	1.3	20
58	A Novel Adaptive, Real-Time Algorithm to Detect Gait Events From Wearable Sensors. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2015, 23, 413-422.	4.9	129
59	Control system for neuro-prostheses integrating induced and volitional effortâ^—â^—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 0.784314 rgBT	0.9	2
60	A multi-channel biomimetic neuroprosthesis to support treadmill gait training in stroke patients. , 2015, 2015, 7159-62.		7
61	Responsiveness and minimal important changes for the Neck Disability Index and the Neck Pain Disability Scale in Italian subjects with chronic neck pain. European Spine Journal, 2015, 24, 2821-2827.	2.2	25
62	Measurement properties of translated versions of the Scoliosis Research Society-22 Patient Questionnaire, SRS-22: a systematic review. Quality of Life Research, 2015, 24, 1981-1998.	3.1	29
63	The NeckPixÂ©: development of an evaluation tool for assessing kinesiophobia in subjects with chronic neck pain. European Spine Journal, 2015, 24, 72-79.	2.2	15
64	The 27-Item Coping Strategies Questionnaire â€" 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
65	A multidisciplinary rehabilitation programme improves disability, kinesiophobia and walking ability in subjects with chronic low back pain: results of a randomised controlled pilot study. European Spine Journal, 2014, 23, 2105-2113.	2.2	74
66	Development of the Italian version of the Pain Stages of Change Questionnaire in patients with chronic low back pain. International Journal of Rehabilitation Research, 2014, 37, 205-211.	1.3	2
67	An Adaptive Real-Time Algorithm to Detect Gait Events Using Inertial Sensors. IFMBE Proceedings, 2014, , 1799-1802.	0.3	4
68	Functional and usability assessment of a robotic exoskeleton arm to support activities of daily life. Robotica, 2014, 32, 1213-1224.	1.9	33
69	Surface Electromyographic Mapping of the Orbicularis Oculi Muscle for Real-Time Blink Detection. JAMA Facial Plastic Surgery, 2014, 16, 335-342.	2.1	26
70	A myocontrolled neuroprosthesis integrated with a passive exoskeleton to support upper limb activities. Journal of Electromyography and Kinesiology, 2014, 24, 307-317.	1.7	58
71	Management of catastrophising and kinesiophobia improves rehabilitation after fusion for lumbar spondylolisthesis and stenosis. A randomised controlled trial. European Spine Journal, 2014, 23, 87-95.	2.2	96
72	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

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73	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
74	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. European Spine Journal, 2014, 23, 1204-1214.	2.2	183
75	Re-thinking the role of motor cortex: Context-sensitive motor outputs?. NeuroImage, 2014, 91, 366-374.	4.2	81
76	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
77	Task-oriented exercises and early full weight-bearing contribute to improving disability after total hip replacement: a randomized controlled trial. Clinical Rehabilitation, 2014, 28, 658-668.	2.2	26
78	Reliability of spatialâ€“temporal gait parameters during dual-task interference in people with multiple sclerosis. A cross-sectional study. Gait and Posture, 2014, 40, 715-718.	1.4	29
79	Feedback control of arm movements using Neuro-Muscular Electrical Stimulation (NMES) combined with a lockable, passive exoskeleton for gravity compensation. Frontiers in Neuroscience, 2014, 8, 262.	2.8	25
80	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
81	MUNDUS project: MUltimodal Neuroprosthesis for daily Upper limb Support. Journal of NeuroEngineering and Rehabilitation, 2013, 10, 66.	4.6	115
82	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. Archives of Physical Medicine and Rehabilitation, 2013, 94, 231-239.	0.9	64
83	Modeling stroke rehabilitation processes using the Unified Modeling Language (UML). Computers in Biology and Medicine, 2013, 43, 1390-1401.	7.0	19
84	Responsiveness and Minimal Important Changes for the Knee Injury and Osteoarthritis Outcome Score in Subjects Undergoing Rehabilitation After Total Knee Arthroplasty. American Journal of Physical Medicine and Rehabilitation, 2013, 92, 864-870.	1.4	53
85	Effect of a Long-lasting Multidisciplinary Program on Disability and Fear-Avoidance Behaviors in Patients With Chronic Low Back Pain: [RETRACTED]. Clinical Journal of Pain, 2013, 29, 929-938.	1.9	99
86	â€˜Regent Suitâ€™ 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
87	Chronic Pain Acceptance Questionnaire. Spine, 2013, 38, E824-E831.	2.0	13
88	Volitional cycling augmented by functional electrical stimulation in hemiparetic adolescents: A case series study. Journal of Automatic Control, 2013, 21, 37-42.	1.0	5
89	Biomimetic NMES controller for arm movements supported by a passive exoskeleton. , 2012, 2012, 1888-91.		6
90	Development of the Italian Version of the Neck Disability Index. Spine, 2012, 37, E1038-E1044.	2.0	57

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91	Cycling Induced by Electrical Stimulation Improves Muscle Activation and Symmetry During Pedaling in Hemiparetic Patients. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2012, 20, 320-330.	4.9	62
92	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. Osteoarthritis and Cartilage, 2012, 20, 330-335.	1.3	66
93	fMRI brain mapping during motion capture and FES induced motor tasks: Signal to noise ratio assessment. Medical Engineering and Physics, 2011, 33, 1027-1032.	1.7	8
94	A biofeedback cycling training to improve locomotion: a case series study based on gait pattern classification of 153 chronic stroke patients. Journal of NeuroEngineering and Rehabilitation, 2011, 8, 47.	4.6	61
95	A novel biofeedback cycling training to improve gait symmetry in stroke patients: A case series study. , 2011, 2011, 5975495.		9
96	Cycling Induced by Electrical Stimulation Improves Motor Recovery in Postacute Hemiparetic Patients. Stroke, 2011, 42, 1068-1073.	2.0	116
97	An EMG-controlled neuroprosthesis for daily upper limb support: A preliminary study. , 2011, 2011, 4259-62.		13
98	Simultaneous measures of kinematics and fMRI: relation between movement parameters and activation maps in healthy subjects. , 2010, , .		0
99	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
100	Simultaneous measurements of kinematics and fMRI: compatibility assessment and case report on recovery evaluation of one stroke patient. Journal of NeuroEngineering and Rehabilitation, 2010, 7, 49.	4.6	25
101	Design of a Symmetry Controller for Cycling Induced by Electrical Stimulation: Preliminary Results on Postâ€Acute Stroke Patients. Artificial Organs, 2010, 34, 663-667.	1.9	31
102	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
103	Measurement of the local muscular metabolism by time-domain near infrared spectroscopy during knee flex-extension induced by functional electrical stimulation. , 2009, , .		0
104	The Effect of Using Variable Frequency Trains During Functional Electrical Stimulation Cycling. Neuromodulation, 2008, 11, 216-226.	0.8	8
105	Cycling, a tool for locomotor recovery after motor lesions?. NeuroRehabilitation, 2008, 23, 67-80.	1.3	29
106	A Closed Loop Neural Scheme to Control Knee Flex-Extension Induced by Functional Electrical Stimulation: Simulation Study and Experimental Test on a Paraplegic Subject. Studies in Computational Intelligence, 2008, , 397-419.	0.9	0
107	Cycling, a tool for locomotor recovery after motor lesions?. NeuroRehabilitation, 2008, 23, 67-80.	1.3	12
108	Monitoring muscle metabolic indexes by time-domain near infrared spectroscopy during knee flex-extension induced by functional electrical stimulation. , 2007, , .		0

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109	Error mapping controller: a closed loop neuroprosthesis controlled by artificial neural networks. Journal of NeuroEngineering and Rehabilitation, 2006, 3, 25.	4.6	20
110	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
111	Design of Myocontrolled Neuroprosthesis. Advances in Medical Technologies and Clinical Practice Book Series, 0, , 275-303.	0.3	1