

# Emilia Biffi

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

76  
papers

654  
citations

13  
h-index

23  
g-index

82  
ext. papers

918  
ext. citations

2.8  
avg, IF

3.96  
L-index

#	Paper	IF	Citations
76	Engagement of Families Attending Early Childhood Services During 5-Month School Closure Due to COVID-19: An Italian Experience. <i>Frontiers in Psychology</i> , <b>2021</b> , 12, 722834	3.4	0
75	Development and Preliminary Testing of a System for the Multimodal Analysis of Gait Training in a Virtual Reality Environment. <i>Electronics (Switzerland)</i> , <b>2021</b> , 10, 2838	2.6	0
74	What Children with Neuromotor Disabilities Need to Play with Technological Games. <i>Applied Sciences (Switzerland)</i> , <b>2021</b> , 11, 9886	2.6	0
73	Comparison of geometrical accuracy of active devices for 3D orthopaedic reconstructions. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2021</b> , 114, 319-342	3.2	0
72	Mother-Infant Interaction Kinect Analysis (MIKA): An automatic kinematic-based methodology for the investigation of interpersonal distance during early exchanges. <i>Research in Social and Administrative Pharmacy</i> , <b>2021</b> , 63, 101567	2.9	2
71	The Effectiveness of Robot- vs. Virtual Reality-Based Gait Rehabilitation: A Propensity Score Matched Cohort. <i>Life</i> , <b>2021</b> , 11,	3	2
70	Quantification of the effects of robotic-assisted gait training on upper and lower body strategy during gait in diplegic children with Cerebral Palsy using summary parameters. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , <b>2021</b> , 1-8	2.1	0
69	User-centred assistive SystEm for arm Functions in neUromuscuLar subjects (USEFUL): a randomized controlled study. <i>Journal of NeuroEngineering and Rehabilitation</i> , <b>2021</b> , 18, 4	5.3	3
68	An assistive upper-limb exoskeleton controlled by multi-modal interfaces for severely impaired patients: development and experimental assessment. <i>Robotics and Autonomous Systems</i> , <b>2021</b> , 143, 103822	3.5	3
67	Social prediction in pediatric patients with congenital, non-progressive malformations of the cerebellum: From deficits in predicting movements to rehabilitation in virtual reality. <i>Cortex</i> , <b>2021</b> , 144, 82-98	3.8	3
66	Wearable Inertial Sensors to Assess Gait during the 6-Minute Walk Test: A Systematic Review. <i>Sensors</i> , <b>2020</b> , 20,	3.8	13
65	Minimum Clinically Important Difference of Gross Motor Function and Gait Endurance in Children with Motor Impairment: A Comparison of Distribution-Based Approaches. <i>BioMed Research International</i> , <b>2020</b> , 2020, 2794036	3	18
64	Virtual Reality Social Prediction Improvement and Rehabilitation Intensive Training (VR-SPIRIT) for paediatric patients with congenital cerebellar diseases: study protocol of a randomised controlled trial. <i>Trials</i> , <b>2020</b> , 21, 82	2.8	8
63	Semi-Immersive Virtual Reality as a Tool to Improve Cognitive and Social Abilities in Preschool Children. <i>Applied Sciences (Switzerland)</i> , <b>2020</b> , 10, 2948	2.6	4
62	A Virtual Design Process to Produce Scoliosis Braces by Additive Manufacturing. <i>Lecture Notes in Mechanical Engineering</i> , <b>2020</b> , 860-870	0.4	1
61	A novel acquisition platform for long-term breathing frequency monitoring based on inertial measurement units. <i>Medical and Biological Engineering and Computing</i> , <b>2020</b> , 58, 785-804	3.1	7
60	Test-retest reliability of the Performance of Upper Limb (PUL) module for muscular dystrophy patients. <i>PLoS ONE</i> , <b>2020</b> , 15, e0239064	3.7	3

59	Learning My Way: A Pilot Study of Navigation Skills in Cerebral Palsy in Immersive Virtual Reality. <i>Frontiers in Psychology</i> , <b>2020</b> , 11, 591296	3.4	4
58	3D printing orthopedic scoliosis braces: a test comparing FDM with thermoforming. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2020</b> , 111, 1707-1720	3.2	7
57	Vitality form expression in autism. <i>Scientific Reports</i> , <b>2020</b> , 10, 17182	4.9	7
56	Application of the Scale for the Assessment and Rating of Ataxia (SARA) in pediatric oncology patients: A multicenter study. <i>Pediatric Hematology and Oncology</i> , <b>2020</b> , 37, 687-695	1.7	0
55	A Wearable Device for Breathing Frequency Monitoring: A Pilot Study on Patients with Muscular Dystrophy. <i>Sensors</i> , <b>2020</b> , 20,	3.8	3
54	Effect of Robot-Assisted Gait Training in a Large Population of Children With Motor Impairment Due to Cerebral Palsy or Acquired Brain Injury. <i>Archives of Physical Medicine and Rehabilitation</i> , <b>2020</b> , 101, 106-112	2.8	21
53	Clinical Benefits and Acceptability of Two Commercial Arm Exoskeletons for Patients with Muscular Dystrophy. <i>Biosystems and Biorobotics</i> , <b>2019</b> , 31-35	0.2	4
52	Effects of Mechanical Insufflation-Exsufflation on the Breathing Pattern in Stable Subjects With Duchenne Muscular Dystrophy: "A Step Into New Knowledge". <i>Respiratory Care</i> , <b>2019</b> , 64, 236-238	2.1	
51	Upper-limb actuated exoskeleton for muscular dystrophy patients: preliminary results. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2019</b> , 2019, 4431-4435	0.9	3
50	EMG-based vibro-tactile biofeedback training: effective learning accelerator for children and adolescents with dystonia? A pilot crossover trial. <i>Journal of NeuroEngineering and Rehabilitation</i> , <b>2019</b> , 16, 150	5.3	2
49	Motor Improvement in Adolescents Affected by Ataxia Secondary to Acquired Brain Injury: A Pilot Study. <i>BioMed Research International</i> , <b>2019</b> , 2019, 8967138	3	3
48	Robotically-driven orthoses exert proximal-to-distal differential recovery on the lower limbs in children with hemiplegia, early after acquired brain injury. <i>European Journal of Paediatric Neurology</i> , <b>2018</b> , 22, 652-661	3.8	8
47	Are We "Motorically" Wired to Others? High-Level Motor Computations and Their Role in Autism. <i>Neuroscientist</i> , <b>2018</b> , 24, 568-581	7.6	6
46	Immersive Virtual Reality to Improve Walking Abilities in Cerebral Palsy: A Pilot Study. <i>Annals of Biomedical Engineering</i> , <b>2018</b> , 46, 1376-1384	4.7	25
45	Exploring the learnability and usability of a near field communication-based application for semantic enrichment in children with language disorders. <i>Assistive Technology</i> , <b>2018</b> , 30, 39-50	1.5	8
44	Assessment of Breathing Parameters Using an Inertial Measurement Unit (IMU)-Based System. <i>Sensors</i> , <b>2018</b> , 19,	3.8	22
43	Current and Future Manufacturing of Chest Orthoses, Considering the Case of Osteogenesis Imperfecta <b>2018</b> ,		3
42	Gait Pattern and Motor Performance During Discrete Gait Perturbation in Children With Autism Spectrum Disorders. <i>Frontiers in Psychology</i> , <b>2018</b> , 9, 2530	3.4	14

41	Movement Velocity and Fluidity Improve after Armeo <span>®</span> Spring Rehabilitation in Children Affected by Acquired and Congenital Brain Diseases: An Observational Study. <i>BioMed Research International</i> , <b>2018</b> , 2018, 1537170	3	5
40	A Voice Control System for Assistive Robotic Arms: Preliminary Usability Tests on Patients <b>2018</b> ,		3
39	Acute Effects of Mechanical Insufflation-Exsufflation on the Breathing Pattern in Stable Subjects With Duchenne Muscular Dystrophy. <i>Respiratory Care</i> , <b>2018</b> , 63, 955-965	2.1	13
38	Rehabilitation of Upper Limb in Children with Acquired Brain Injury: A Preliminary Comparative Study. <i>Journal of Healthcare Engineering</i> , <b>2018</b> , 2018, 4208492	3.7	11
37	Role of the cerebellum in high stages of motor planning hierarchy. <i>Journal of Neurophysiology</i> , <b>2017</b> , 117, 1474-1482	3.2	8
36	Effects of dose and duration of Robot-Assisted Gait Training on walking ability of children affected by cerebral palsy. <i>Technology and Health Care</i> , <b>2017</b> , 25, 671-681	1.1	22
35	An Immersive Virtual Reality Platform to Enhance Walking Ability of Children with Acquired Brain Injuries. <i>Methods of Information in Medicine</i> , <b>2017</b> , 56, 119-126	1.5	28
34	A novel, low cost, wearable contact-based device for breathing frequency monitoring. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2017</b> , 2017, 2402-2405	0.9	4
33	Immersive virtual reality platform for cerebral palsy rehabilitation <b>2016</b> ,		2
32	EMG-based vibro-tactile biofeedback improves motor control in children with secondary dystonia: two case reports. <i>Neuropsychiatry</i> , <b>2016</b> , 06,	1.8	5
31	A Framework for the Comparative Assessment of Neuronal Spike Sorting Algorithms towards More Accurate Off-Line and On-Line Microelectrode Arrays Data Analysis. <i>Computational Intelligence and Neuroscience</i> , <b>2016</b> , 2016, 8416237	3	11
30	Quantitative Evaluation of Performance during Robot-assisted Treatment. <i>Methods of Information in Medicine</i> , <b>2016</b> , 55, 84-8	1.5	8
29	Development of a bench-top device for parallel climate-controlled recordings of neuronal cultures activity with microelectrode arrays. <i>Biotechnology and Bioengineering</i> , <b>2016</b> , 113, 403-13	4.9	3
28	Learning Probabilistic Features from EMG Data for Predicting Knee Abnormalities. <i>IFMBE Proceedings</i> , <b>2016</b> , 668-672	0.2	0
27	A Comparative Study Among Constraint, Robot-Aided and Standard Therapies in Upper Limb Rehabilitation of Children with Acquired Brain Injury. <i>IFMBE Proceedings</i> , <b>2016</b> , 673-678	0.2	2
26	Non-invasive Trisomy 21 Diagnosis Using Fuzzy Cognitive Maps. <i>IFMBE Proceedings</i> , <b>2016</b> , 731-736	0.2	
25	Mechanical in-Exsufflation Improves the Breathing Pattern in Patients with Duchenne Muscular Dystrophy. <i>IFMBE Proceedings</i> , <b>2016</b> , 737-740	0.2	
24	An Automated Function for Identifying EEG Independent Components Representing Bilateral Source Activity. <i>IFMBE Proceedings</i> , <b>2016</b> , 105-109	0.2	10

23	Preliminary Data on the Usability and Efficacy of an Assistive Device for the Congenital Central Hypoventilation Syndrome: An Observational Study. <i>IFMBE Proceedings</i> , <b>2016</b> , 451-456	0.2	
22	Can new technologies improve upper limb performance in grown-up diplegic children?. <i>European Journal of Physical and Rehabilitation Medicine</i> , <b>2016</b> , 52, 672-681	4.4	10
21	A New Quantitative Performance Parameter for Monitoring Robotics Rehabilitation Treatment: Technical Guidelines. <i>Communications in Computer and Information Science</i> , <b>2015</b> , 45-54	0.3	2
20	Improving walking ability of children with acquired brain injuries by means of an immersive virtual reality platform <b>2015</b> ,		1
19	A low-noise, modular, and versatile analog front-end intended for processing in vitro neuronal signals detected by microelectrode arrays. <i>Computational Intelligence and Neuroscience</i> , <b>2015</b> , 2015, 1723-1736	3.96	5
18	Gait rehabilitation with a high tech platform based on virtual reality conveys improvements in walking ability of children suffering from acquired brain injury. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2015</b> , 2015, 7102-7105	0.9	4
17	An ecological evaluation of the metabolic benefits due to robot-assisted gait training. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2015</b> , 2015, 3590-3	0.9	1
16	Down-sizing of neuronal network activity and density of presynaptic terminals by pathological acidosis are efficiently prevented by Diminazene Aceturate. <i>Brain, Behavior, and Immunity</i> , <b>2015</b> , 45, 263-76	16.6	18
15	Selective Biochemical Manipulation of Twin Neuronal Networks on Microelectrode Arrays. <i>Neuromethods</i> , <b>2015</b> , 217-230	0.4	
14	Impact of a NFC-Based Application with Educational Purposes on Children Affected by Language Disorders. <i>Communications in Computer and Information Science</i> , <b>2015</b> , 285-293	0.3	
13	An assistive device for congenital central hypoventilation syndrome outpatients during sleep. <i>Annals of Biomedical Engineering</i> , <b>2014</b> , 42, 2106-16	4.7	2
12	The Influence of Neuronal Density on Network Activity: A Methodological Study. <i>IFMBE Proceedings</i> , <b>2014</b> , 1706-1709	0.2	
11	NFC-based application with educational purposes <b>2014</b> ,		2
10	A new quantitative performance parameter for monitoring robotics rehabilitation treatment <b>2014</b> ,		2
9	The influence of neuronal density and maturation on network activity of hippocampal cell cultures: a methodological study. <i>PLoS ONE</i> , <b>2013</b> , 8, e83899	3.7	80
8	Validation of long-term primary neuronal cultures and network activity through the integration of reversibly bonded microbioreactors and MEA substrates. <i>Biotechnology and Bioengineering</i> , <b>2012</b> , 109, 166-75	4.9	20
7	A novel environmental chamber for neuronal network multisite recordings. <i>Biotechnology and Bioengineering</i> , <b>2012</b> , 109, 2553-66	4.9	10
6	A microfluidic platform for controlled biochemical stimulation of twin neuronal networks. <i>Biomicrofluidics</i> , <b>2012</b> , 6, 24106-2410610	3.2	31

5	Impaired striatal GABA transmission in experimental autoimmune encephalomyelitis. <i>Brain, Behavior, and Immunity</i> , <b>2011</b> , 25, 947-56	16.6	76
4	A new cross-correlation algorithm for the analysis of "in vitro" neuronal network activity aimed at pharmacological studies. <i>Journal of Neuroscience Methods</i> , <b>2011</b> , 199, 321-7	3	10
3	Development and validation of a spike detection and classification algorithm aimed at implementation on hardware devices. <i>Computational Intelligence and Neuroscience</i> , <b>2010</b> , 659050	3	25
2	LOW-COST 3D DEVICES AND LASER SCANNERS COMPARISON FOR THE APPLICATION IN ORTHOPEDIC CENTRES. <i>International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives</i> , XLII-2, 953-960	2.5	10
1	A simulator for both manual and powered wheelchairs in immersive virtual reality CAVE. <i>Virtual Reality</i> , 1	6	2