

Giancarlo Ferrigno

List of Publications by Year in descending order

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243
papers

7,340
citations

53794

45
h-index

76900

74
g-index

245
all docs

245
docs citations

245
times ranked

6767
citing authors

#	ARTICLE	IF	CITATIONS
1	Elite: A Digital Dedicated Hardware System for Movement Analysis Via Real-Time TV Signal Processing. IEEE Transactions on Biomedical Engineering, 1985, BME-32, 943-950.	4.2	502
2	Chest wall and lung volume estimation by optical reflectance motion analysis. Journal of Applied Physiology, 1996, 81, 2680-2689.	2.5	324
3	Human respiratory muscle actions and control during exercise. Journal of Applied Physiology, 1997, 83, 1256-1269.	2.5	295
4	Improved Human-Robot Collaborative Control of Redundant Robot for Teleoperated Minimally Invasive Surgery. IEEE Robotics and Automation Letters, 2019, 4, 1447-1453.	5.1	169
5	Haptics in Robot-Assisted Surgery: Challenges and Benefits. IEEE Reviews in Biomedical Engineering, 2016, 9, 49-65.	18.0	167
6	Improved recurrent neural network-based manipulator control with remote center of motion constraints: Experimental results. Neural Networks, 2020, 131, 291-299.	5.9	166
7	Markerless Motion Capture through Visual Hull, Articulated ICP and Subject Specific Model Generation. International Journal of Computer Vision, 2010, 87, 156-169.	15.6	155
8	Technique for the evaluation of derivatives from noisy biomechanical displacement data using a model-based bandwidth-selection procedure. Medical and Biological Engineering and Computing, 1990, 28, 407-415.	2.8	141
9	Validation of FreeSurfer-Estimated Brain Cortical Thickness: Comparison with Histologic Measurements. Neuroinformatics, 2014, 12, 535-542.	2.8	137
10	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
11	Deep Neural Network Approach in Robot Tool Dynamics Identification for Bilateral Teleoperation. IEEE Robotics and Automation Letters, 2020, 5, 2943-2949.	5.1	124
12	Cycling Induced by Electrical Stimulation Improves Motor Recovery in Postacute Hemiparetic Patients. Stroke, 2011, 42, 1068-1073.	2.0	116
13	Toward Teaching by Demonstration for Robot-Assisted Minimally Invasive Surgery. IEEE Transactions on Automation Science and Engineering, 2021, 18, 484-494.	5.2	116
14	MUNDUS project: Multimodal Neuroprosthesis for daily Upper limb Support. Journal of NeuroEngineering and Rehabilitation, 2013, 10, 66.	4.6	115
15	The Influence of Neuronal Density and Maturation on Network Activity of Hippocampal Cell Cultures: A Methodological Study. PLoS ONE, 2013, 8, e83899.	2.5	113
16	An Incremental Learning Framework for Human-Like Redundancy Optimization of Anthropomorphic Manipulators. IEEE Transactions on Industrial Informatics, 2022, 18, 1864-1872.	11.3	90
17	Re-thinking the role of motor cortex: Context-sensitive motor outputs?. NeuroImage, 2014, 91, 366-374.	4.2	81
18	Comparison between the more recent techniques for smoothing and derivative assessment in biomechanics. Medical and Biological Engineering and Computing, 1992, 30, 193-204.	2.8	80

#	ARTICLE	IF	CITATIONS
19	A Fast and Robust Deep Convolutional Neural Networks for Complex Human Activity Recognition Using Smartphone. <i>Sensors</i> , 2019, 19, 3731.	3.8	79
20	Review of Robotic Technology for Stereotactic Neurosurgery. <i>IEEE Reviews in Biomedical Engineering</i> , 2015, 8, 125-137.	18.0	75
21	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
22	Finger Kinematic Modeling and Real-Time Hand Motion Estimation. <i>Annals of Biomedical Engineering</i> , 2007, 35, 1989-2002.	2.5	71
23	Pattern recognition in 3D automatic human motion analysis. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 1990, 45, 227-246.	11.1	69
24	Kinematical models to reduce the effect of skin artifacts on marker-based human motion estimation. <i>Journal of Biomechanics</i> , 2005, 38, 2228-2236.	2.1	65
25	Automatic extraction of the mid-facial plane for cranio-maxillofacial surgery planning. <i>International Journal of Oral and Maxillofacial Surgery</i> , 2006, 35, 636-642.	1.5	64
26	Distributed cerebellar plasticity implements generalized multiple-scale memory components in real-robot sensorimotor tasks. <i>Frontiers in Computational Neuroscience</i> , 2015, 9, 24.	2.1	64
27	Unscented Kalman Filter Based Sensor Fusion for Robust Optical and Electromagnetic Tracking in Surgical Navigation. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2013, 62, 2067-2081.	4.7	63
28	Multi-trajectories automatic planner for StereoElectroEncephaloGraphy (SEEG). <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2014, 9, 1087-1097.	2.8	63
29	Autoscan: a flexible and portable 3D scanner. <i>IEEE Computer Graphics and Applications</i> , 1998, 18, 38-41.	1.2	62
30	Real-time three-dimensional motion analysis for patient positioning verification. <i>Radiotherapy and Oncology</i> , 2000, 54, 21-27.	0.6	62
31	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
32	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
33	An algorithm for 3-D automatic movement detection by means of standard TV cameras. <i>IEEE Transactions on Biomedical Engineering</i> , 1990, 37, 1221-1225.	4.2	59
34	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
35	Derivation of Centers and Axes of Rotation for Wrist and Fingers in a Hand Kinematic Model: Methods and Reliability Results. <i>Annals of Biomedical Engineering</i> , 2005, 33, 402-412.	2.5	57
36	A Quaternion-Based Unscented Kalman Filter for Robust Optical/Inertial Motion Tracking in Computer-Assisted Surgery. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2015, 64, 2291-2301.	4.7	57

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37	Robust recovery of human motion from video using Kalman filters and virtual humans. <i>Human Movement Science</i> , 2003, 22, 377-404.	1.4	56
38	Collaborative framework for robot-assisted minimally invasive surgery using a 7-DoF anthropomorphic robot. <i>Robotics and Autonomous Systems</i> , 2018, 106, 95-106.	5.1	56
39	Deep Neural Network Approach in Human-Like Redundancy Optimization for Anthropomorphic Manipulators. <i>IEEE Access</i> , 2019, 7, 124207-124216.	4.2	55
40	Toward a standard ontology of surgical process models. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2018, 13, 1397-1408.	2.8	54
41	Effects of Parkinson's disease on proprioceptive control of posture and reaching while standing. <i>Neuroscience</i> , 2009, 158, 1206-1214.	2.3	53
42	Automatic classification of epilepsy types using ontology-based and genetics-based machine learning. <i>Artificial Intelligence in Medicine</i> , 2014, 61, 79-88.	6.5	53
43	Safety-enhanced Collaborative Framework for Tele-operated Minimally Invasive Surgery Using a 7-DoF Torque-controlled Robot. <i>International Journal of Control, Automation and Systems</i> , 2018, 16, 2915-2923.	2.7	53
44	Robotic and artificial intelligence for keyhole neurosurgery: The ROBOCAST project, a multi-modal autonomous path planner. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2010, 224, 715-727.	1.8	52
45	Automatic Trajectory Planner for StereoElectroEncephaloGraphy Procedures: A Retrospective Study. <i>IEEE Transactions on Biomedical Engineering</i> , 2013, 60, 986-993.	4.2	51
46	Depth vision guided hand gesture recognition using electromyographic signals. <i>Advanced Robotics</i> , 2020, 34, 985-997.	1.8	49
47	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
48	“Deep-Onto” network for surgical workflow and context recognition. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2019, 14, 685-696.	2.8	44
49	The Neural Correlates of Long-Term Carryover following Functional Electrical Stimulation for Stroke. <i>Neural Plasticity</i> , 2016, 2016, 1-13.	2.2	41
50	A Neural Network-Based Approach for Trajectory Planning in Robot-Human Handover Tasks. <i>Frontiers in Robotics and AI</i> , 2016, 3, .	3.2	40
51	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
52	Online human-like redundancy optimization for tele-operated anthropomorphic manipulators. <i>International Journal of Advanced Robotic Systems</i> , 2018, 15, 172988141881469.	2.1	40
53	Distortion correction for x-ray image intensifiers: Local unwarping polynomials and RBF neural networks. <i>Medical Physics</i> , 2002, 29, 1759-1771.	3.0	37
54	Force feedback in a piezoelectric linear actuator for neurosurgery. <i>International Journal of Medical Robotics and Computer Assisted Surgery</i> , 2011, 7, 268-275.	2.3	37

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55	A microfluidic platform for controlled biochemical stimulation of twin neuronal networks. <i>Biomicrofluidics</i> , 2012, 6, 024106.	2.4	37
56	Neural Network Enhanced Robot Tool Identification and Calibration for Bilateral Teleoperation. <i>IEEE Access</i> , 2019, 7, 122041-122051.	4.2	37
57	Safety-Enhanced Human-Robot Interaction Control of Redundant Robot for Teleoperated Minimally Invasive Surgery. , 2018, , .		35
58	Deep Neural Network Approach in EMG-Based Force Estimation for Human-Robot Interaction. <i>IEEE Transactions on Artificial Intelligence</i> , 2021, 2, 404-412.	4.7	35
59	Quantitative analysis of neutral body posture in prolonged microgravity. <i>Gait and Posture</i> , 2000, 12, 235-242.	1.4	34
60	Static and dynamic postural control in long-term microgravity: evidence of a dual adaptation. <i>Journal of Applied Physiology</i> , 2001, 90, 205-215.	2.5	34
61	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
62	Real-Time Opto-Electronic Verification of Patient Position in Breast Cancer Radiotherapy. <i>Computer Aided Surgery</i> , 2000, 5, 296-306.	1.8	33
63	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
64	Nonlinear Model Predictive Control for Mobile Medical Robot Using Neural Optimization. <i>IEEE Transactions on Industrial Electronics</i> , 2021, 68, 12636-12645.	7.9	33
65	Neuro-Mechanics of Recumbent Leg Cycling in Post-Acute Stroke Patients. <i>Annals of Biomedical Engineering</i> , 2016, 44, 3238-3251.	2.5	32
66	Towards Model-Free Tool Dynamic Identification and Calibration Using Multi-Layer Neural Network. <i>Sensors</i> , 2019, 19, 3636.	3.8	32
67	Internet of Things (IoT)-based Collaborative Control of a Redundant Manipulator for Teleoperated Minimally Invasive Surgeries. , 2020, , .		32
68	In Vivo Validation of a Realistic Kinematic Model for the Trapezio-Metacarpal Joint Using an Optoelectronic System. <i>Annals of Biomedical Engineering</i> , 2008, 36, 1268-1280.	2.5	31
69	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
70	Manipulability Optimization Control of a Serial Redundant Robot for Robot-assisted Minimally Invasive Surgery. , 2019, , .		31
71	Implementation and application of real-time motion analysis based on passive markers. <i>Medical and Biological Engineering and Computing</i> , 1998, 36, 693-703.	2.8	30
72	Long-term adaptation of postural control in microgravity. <i>Experimental Brain Research</i> , 1999, 128, 410-416.	1.5	30

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73	BOLD fMRI integration into radiosurgery treatment planning of cerebral vascular malformations. <i>Medical Physics</i> , 2007, 34, 1176-1184.	3.0	29
74	EMG-Based Visual-Haptic Biofeedback: A Tool to Improve Motor Control in Children With Primary Dystonia. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2013, 21, 474-480.	4.9	29
75	Virtual reality-based wheelchair simulators: A scoping review. <i>Assistive Technology</i> , 2020, 32, 294-305.	2.0	29
76	A Micro-Electrode Array device coupled to a laser-based system for the local stimulation of neurons by optical release of glutamate. <i>Journal of Neuroscience Methods</i> , 2008, 175, 70-78.	2.5	27
77	Development and Validation of a Spike Detection and Classification Algorithm Aimed at Implementation on Hardware Devices. <i>Computational Intelligence and Neuroscience</i> , 2010, 2010, 1-15.	1.7	27
78	Validation of a stereo camera system to quantify brain deformation due to breathing and pulsatility. <i>Medical Physics</i> , 2014, 41, 113502.	3.0	27
79	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> , 2015, 45, 263-276.	4.1	27
80	Robotic Assistance-as-Needed for Enhanced Visuomotor Learning in Surgical Robotics Training: An Experimental Study. , 2018, , .		27
81	A novel autonomous learning framework to enhance sEMG-based hand gesture recognition using depth information. <i>Biomedical Signal Processing and Control</i> , 2021, 66, 102444.	5.7	27
82	Development and validation of a CT-3D rotational angiography registration method for AVM radiosurgery. <i>Medical Physics</i> , 2004, 31, 1363-1371.	3.0	25
83	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
84	Reaching while standing in microgravity: a new postural solution to oversimplify movement control. <i>Experimental Brain Research</i> , 2012, 216, 203-215.	1.5	25
85	Development of an intelligent surgical training system for Thoracentesis. <i>Artificial Intelligence in Medicine</i> , 2018, 84, 50-63.	6.5	25
86	A Hybrid Robotic System for Arm Training of Stroke Survivors: Concept and First Evaluation. <i>IEEE Transactions on Biomedical Engineering</i> , 2019, 66, 3290-3300.	4.2	25
87	A Robotic System with EMG-Triggered Functional Electrical Stimulation for Restoring Arm Functions in Stroke Survivors. <i>Neurorehabilitation and Neural Repair</i> , 2021, 35, 334-345.	2.9	25
88	Perspectives on MEMS in bioengineering: a novel capacitive position microsensor [and laser surgery and drug delivery applications]. <i>IEEE Transactions on Biomedical Engineering</i> , 2000, 47, 8-11.	4.2	24
89	Modeling and driving a reduced human mannequin through motion captured data: a neural network approach. <i>IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans</i> , 2001, 31, 187-193.	2.9	24
90	Real-time human motion estimation using biomechanical models and non-linear state-space filters. <i>Medical and Biological Engineering and Computing</i> , 2003, 41, 109-123.	2.8	24

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91	Enhancing digital cephalic radiography with mixture models and local gamma correction. IEEE Transactions on Medical Imaging, 2006, 25, 113-121.	8.9	24
92	Methodological and technological implications of quantitative human movement analysis in long term space flights. Journal of Biomechanics, 1999, 32, 431-436.	2.1	23
93	In-vitro experimental assessment of a new robust algorithm for hip joint centre estimation. Journal of Biomechanics, 2009, 42, 989-995.	2.1	23
94	Reaching and Writing Movements: Sensitive and Reliable Tools to Measure Genetic Dystonia in Children. Journal of Child Neurology, 2011, 26, 822-829.	1.4	23
95	Voluntary head stabilisation in space during oscillatory trunk movements in the frontal plane performed before, during and after a prolonged period of weightlessness. Experimental Brain Research, 2001, 137, 170-179.	1.5	22
96	Adaptive Hands-On Control for Reaching and Targeting Tasks in Surgery. International Journal of Advanced Robotic Systems, 2015, 12, 50.	2.1	22
97	Skill-based human-robot cooperation in tele-operated path tracking. Autonomous Robots, 2018, 42, 997-1009.	4.8	22
98	Evaluation of methods for opto-electronic body surface sensing applied to patient position control in breast radiation therapy. Medical and Biological Engineering and Computing, 2003, 41, 679-688.	2.8	21
99	Reducing and Filtering Point Clouds With Enhanced Vector Quantization. IEEE Transactions on Neural Networks, 2007, 18, 161-177.	4.2	21
100	Error mapping controller: a closed loop neuroprosthesis controlled by artificial neural networks. Journal of NeuroEngineering and Rehabilitation, 2006, 3, 25.	4.6	20
101	Design and Integration of Electrical Bio-impedance Sensing in Surgical Robotic Tools for Tissue Identification and Display. Frontiers in Robotics and AI, 2019, 6, 55.	3.2	20
102	Bilateral Teleoperation Control of a Redundant Manipulator with an RCM Kinematic Constraint. , 2020, , .		20
103	A novel muscle-computer interface for hand gesture recognition using depth vision. Journal of Ambient Intelligence and Humanized Computing, 2020, 11, 5569-5580.	4.9	20
104	Novel Adaptive Sensor Fusion Methodology for Hand Pose Estimation With Multileap Motion. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-8.	4.7	20
105	Method for the estimation of a double hinge kinematic model for the trapeziometacarpal joint using MR imaging. Computer Methods in Biomechanics and Biomedical Engineering, 2010, 13, 387-396.	1.6	19
106	Accurate multi-robot targeting for keyhole neurosurgery based on external sensor monitoring. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2012, 226, 347-359.	1.8	18
107	Error-enhancing robot therapy to induce motor control improvement in childhood onset primary dystonia. Journal of NeuroEngineering and Rehabilitation, 2012, 9, 46.	4.6	18
108	Assessment of the usability of an immersive virtual supermarket for the cognitive rehabilitation of elderly patients: A pilot study on young adults. , 2018, , .		18

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109	Gaussian mixture models based 2D-3D registration of bone shapes for orthopedic surgery planning. Medical and Biological Engineering and Computing, 2016, 54, 1727-1740.	2.8	17
110	Novel Design and Lateral Stability Tracking Control of a Four-Wheeled Rollator. Applied Sciences (Switzerland), 2019, 9, 2327.	2.5	17
111	Atlas-based identification of targets for functional radiosurgery. Medical Physics, 2006, 33, 1603-1611.	3.0	16
112	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
113	Optically tracked multi-robot system for keyhole neurosurgery. , 2011, , .		16
114	Risk-based path planning for a steerable flexible probe for neurosurgical intervention. , 2012, , .		16
115	ELITE: A goal oriented vision system for moving objects detection. Robotica, 1991, 9, 275-282.	1.9	15
116	Self-marking of anatomical landmarks for on-orbit experimental motion analysis compared to expert direct-marking. Human Movement Science, 2002, 21, 439-455.	1.4	15
117	PhotoMEA: An opto-electronic biosensor for monitoring in vitro neuronal network activity. BioSystems, 2007, 87, 150-155.	2.0	15
118	A novel environmental chamber for neuronal network multisite recordings. Biotechnology and Bioengineering, 2012, 109, 2553-2566.	3.3	15
119	A Framework for the Comparative Assessment of Neuronal Spike Sorting Algorithms towards More Accurate Off-Line and On-Line Microelectrode Arrays Data Analysis. Computational Intelligence and Neuroscience, 2016, 2016, 1-19.	1.7	15
120	Principal component analysis of chest wall movement in selected pathologies. Medical and Biological Engineering and Computing, 1998, 36, 445-451.	2.8	14
121	Absence of center of mass control for leg abduction in long-term weightlessness in humans. Neuroscience Letters, 2002, 319, 172-176.	2.1	14
122	3T MRI evaluation of the accuracy of atlas-based subthalamic nucleus identification. Medical Physics, 2008, 35, 3069-3077.	3.0	14
123	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
124	Digital Innovation Hubs in Health-Care Robotics Fighting COVID-19: Novel Support for Patients and Health-Care Workers Across Europe. IEEE Robotics and Automation Magazine, 2021, 28, 40-47.	2.0	14
125	A Kinematic Bottleneck Approach for Pose Regression of Flexible Surgical Instruments Directly From Images. IEEE Robotics and Automation Letters, 2021, 6, 2938-2945.	5.1	14
126	Non-invasive approach towards the in vivo estimation of 3D inter-vertebral movements: methods and preliminary results. Medical Engineering and Physics, 2004, 26, 841-853.	1.7	13

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127	Metrological characterization of a cycle-ergometer to optimize the cycling induced by functional electrical stimulation on patients with stroke. <i>Medical Engineering and Physics</i> , 2010, 32, 339-348.	1.7	13
128	A new cross-correlation algorithm for the analysis of <i>in vitro</i> neuronal network activity aimed at pharmacological studies. <i>Journal of Neuroscience Methods</i> , 2011, 199, 321-327.	2.5	13
129	An EMG-controlled neuroprosthesis for daily upper limb support: A preliminary study. , 2011, 2011, 4259-62.		13
130	Intraoperative forces and moments analysis on patient head clamp during awake brain surgery. <i>Medical and Biological Engineering and Computing</i> , 2013, 51, 331-341.	2.8	13
131	Validation of a Quantitative Single-Subject Based Evaluation for Rehabilitation-Induced Improvement Assessment. <i>Annals of Biomedical Engineering</i> , 2015, 43, 2686-2698.	2.5	13
132	A method for the assessment of time-varying brain shift during navigated epilepsy surgery. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2016, 11, 473-481.	2.8	12
133	On the Value of Estimating Human Arm Stiffness during Virtual Teleoperation with Robotic Manipulators. <i>Frontiers in Neuroscience</i> , 2017, 11, 528.	2.8	12
134	Analysis for the design of a novel integrated framework for the return to work of wheelchair users. <i>Work</i> , 2019, 61, 603-625.	1.1	12
135	Quantitative analysis of motion control in long term $\frac{1}{4}$ -gravity. <i>Acta Astronautica</i> , 1998, 43, 131-151.	3.2	11
136	Motor coordination in weightless conditions revealed by long-term microgravity adaptation. <i>Acta Astronautica</i> , 2001, 49, 199-213.	3.2	11
137	Accurate calibration method for 3D freehand ultrasound probe using virtual plane. <i>Medical Physics</i> , 2011, 38, 6710-6720.	3.0	11
138	Hand-tool-tissue interaction forces in neurosurgery for haptic rendering. <i>Medical and Biological Engineering and Computing</i> , 2016, 54, 1229-1241.	2.8	11
139	Automating Endoscope Motion in Robotic Surgery: A Usability Study on da Vinci-Assisted Ex Vivo Neobladder Reconstruction. <i>Frontiers in Robotics and AI</i> , 2021, 8, 707704.	3.2	11
140	Hierarchical radial basis function networks and local polynomial un-warping for X-ray image intensifier distortion correction: A comparison with global techniques. <i>Medical and Biological Engineering and Computing</i> , 2003, 41, 151-163.	2.8	10
141	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> , 2015, 2015, 1-15.	1.7	10
142	Intra and inter-session reliability of rapid Transcranial Magnetic Stimulation stimulus-response curves of tibialis anterior muscle in healthy older adults. <i>PLoS ONE</i> , 2017, 12, e0184828.	2.5	10
143	Reinforcement Learning Based Manipulation Skill Transferring for Robot-assisted Minimally Invasive Surgery. , 2020, , .		10
144	Statistical comparison of DLT versus ILSSC in the calibration of a photogrammetric stereo-system. <i>Journal of Biomechanics</i> , 1997, 30, 409-413.	2.1	9

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145	<title>Portable and accurate 3D scanner for breast implant design and reconstructive plastic surgery</title>. , 1998, 3338, 1558.		9
146	Preliminary study on the use of nonrigid registration for thoraco-abdominal radiosurgery. Medical Physics, 2005, 32, 3777-3785.	3.0	9
147	A novel biofeedback cycling training to improve gait symmetry in stroke patients: A case series study. , 2011, 2011, 5975495.		9
148	A dynamic non-energy-storing guidance constraint with motion redirection for robot-assisted surgery. , 2016, , .		9
149	Enhanced torque-based impedance control to assist brain targeting during open-skull neurosurgery: a feasibility study. International Journal of Medical Robotics and Computer Assisted Surgery, 2016, 12, 326-341.	2.3	9
150	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
151	Inverse dynamic investigation of voluntary trunk movements in weightlessness: a new microgravity-specific strategy. Journal of Biomechanics, 2003, 36, 1691-1700.	2.1	8
152	Inverse dynamic investigation of voluntary leg lateral movements in weightlessness: a new microgravity-specific strategy. Journal of Biomechanics, 2005, 38, 769-777.	2.1	8
153	Robotic alignment of femoral cutting mask during total knee arthroplasty. International Journal of Computer Assisted Radiology and Surgery, 2008, 3, 413-419.	2.8	8
154	The Effect of Using Variable Frequency Trains During Functional Electrical Stimulation Cycling. Neuromodulation, 2008, 11, 216-226.	0.8	8
155	Medical Robotics. IEEE Pulse, 2011, 2, 55-61.	0.3	8
156	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
157	Analysis of Joint and Hand Impedance During Teleoperation and Free-Hand Task Execution. IEEE Robotics and Automation Letters, 2017, 2, 1733-1739.	5.1	8
158	Real-time opto-electronic verification of patient position in breast cancer radiotherapy. Computer Aided Surgery, 2000, 5, 296-306.	1.8	8
159	Teleoperation Control of an Underactuated Bionic Hand: Comparison between Wearable and Vision-Tracking-Based Methods. Robotics, 2022, 11, 61.	3.5	8
160	Procedure to automatically classify markers in biomechanical analysis of whole-body movement in different sports activities. Medical and Biological Engineering and Computing, 1988, 26, 321-324.	2.8	7
161	Surface Scanning: An Application to Mammary Surgery. Journal of Biomedical Optics, 1998, 3, 161.	2.6	7
162	A mathematical tool to generate complex whole body motor tasks and test hypotheses on underlying motor planning. Medical and Biological Engineering and Computing, 2008, 46, 11-22.	2.8	7

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163	Femtosecond Laser Microfabrication of an Integrated Device for Optical Release and Sensing of Bioactive Compounds. <i>Sensors</i> , 2008, 8, 6595-6604.	3.8	7
164	Miniaturized rigid probe driver with haptic loop control for neurosurgical interventions. , 2010, , .		7
165	Functional Evaluation and Rehabilitation Engineering. <i>IEEE Pulse</i> , 2011, 2, 24-34.	0.3	7
166	A multi-channel biomimetic neuroprosthesis to support treadmill gait training in stroke patients. , 2015, 2015, 7159-62.		7
167	Experimental validation of manipulability optimization control of a 7-DoF serial manipulator for robot-assisted surgery. <i>International Journal of Medical Robotics and Computer Assisted Surgery</i> , 2021, 17, 1-11.	2.3	7
168	Kinematics of aimed movements in ecological immersive virtual reality: a comparative study with real world. <i>Virtual Reality</i> , 2022, 26, 885-901.	6.1	7
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