

Giancarlo Ferrigno

List of Publications by Year in descending order

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Version: 2024-02-01

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 | An Incremental Learning Framework for Human-Like Redundancy Optimization of Anthropomorphic Manipulators. <i>IEEE Transactions on Industrial Informatics</i> , 2022, 18, 1864-1872. | 11.3 | 90 |
| 2 | 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 |
| 3 | Teleoperation Control of an Underactuated Bionic Hand: Comparison between Wearable and Vision-Tracking-Based Methods. <i>Robotics</i> , 2022, 11, 61. | 3.5 | 8 |
| 4 | 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 |
| 5 | 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 |
| 6 | Digital Innovation Hubs in Health-Care Robotics Fighting COVID-19: Novel Support for Patients and Health-Care Workers Across Europe. <i>IEEE Robotics and Automation Magazine</i> , 2021, 28, 40-47. | 2.0 | 14 |
| 7 | 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 |
| 8 | 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 |
| 9 | Toward Teaching by Demonstration for Robot-Assisted Minimally Invasive Surgery. <i>IEEE Transactions on Automation Science and Engineering</i> , 2021, 18, 484-494. | 5.2 | 116 |
| 10 | A Kinematic Bottleneck Approach for Pose Regression of Flexible Surgical Instruments Directly From Images. <i>IEEE Robotics and Automation Letters</i> , 2021, 6, 2938-2945. | 5.1 | 14 |
| 11 | Whole-body Spatial Teleoperation Control of a Hexapod Robot in Unstructured Environment. , 2021, , . | | 3 |
| 12 | 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 |
| 13 | Novel Adaptive Sensor Fusion Methodology for Hand Pose Estimation With Multileap Motion. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021, 70, 1-8. | 4.7 | 20 |
| 14 | 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 |
| 15 | Virtual reality-based wheelchair simulators: A scoping review. <i>Assistive Technology</i> , 2020, 32, 294-305. | 2.0 | 29 |
| 16 | Bilateral Teleoperation Control of a Redundant Manipulator with an RCM Kinematic Constraint. , 2020, , . | | 20 |
| 17 | Internet of Things (IoT)-based Collaborative Control of a Redundant Manipulator for Teleoperated Minimally Invasive Surgeries. , 2020, , . | | 32 |
| 18 | Hierarchical Task Impedance Control of a Serial Manipulator for Minimally Invasive Surgery. , 2020, , . | | 1 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Improved recurrent neural network-based manipulator control with remote center of motion constraints: Experimental results. <i>Neural Networks</i> , 2020, 131, 291-299. | 5.9 | 166 |
| 20 | Machine Learning Driven Human Skill Transferring for Control of Anthropomorphic Manipulators. , 2020, , . | | 2 |
| 21 | Depth Vision Guided Human Activity Recognition in Surgical Procedure using Wearable Multisensor. , 2020, , . | | 4 |
| 22 | Reinforcement Learning Based Manipulation Skill Transferring for Robot-assisted Minimally Invasive Surgery. , 2020, , . | | 10 |
| 23 | A novel muscle-computer interface for hand gesture recognition using depth vision. <i>Journal of Ambient Intelligence and Humanized Computing</i> , 2020, 11, 5569-5580. | 4.9 | 20 |
| 24 | Deep Neural Network Approach in Robot Tool Dynamics Identification for Bilateral Teleoperation. <i>IEEE Robotics and Automation Letters</i> , 2020, 5, 2943-2949. | 5.1 | 124 |
| 25 | Depth vision guided hand gesture recognition using electromyographic signals. <i>Advanced Robotics</i> , 2020, 34, 985-997. | 1.8 | 49 |
| 26 | Surgeon Training with Haptic Devices for Computer and Robot Assisted Surgery: An Experimental Study. <i>IFMBE Proceedings</i> , 2020, , 1526-1535. | 0.3 | 2 |
| 27 | Toward a Neural-Symbolic Framework for Automated Workflow Analysis in Surgery. <i>IFMBE Proceedings</i> , 2020, , 1551-1558. | 0.3 | 1 |
| 28 | Human Activity Recognition Enhanced Robot-Assisted Minimally Invasive Surgery. <i>Mechanisms and Machine Science</i> , 2020, , 121-129. | 0.5 | 1 |
| 29 | Improving Motion Planning for Surgical Robot with Active Constraints. , 2020, , . | | 4 |
| 30 | Hierarchical optimization Control of Redundant Manipulator for Robot-assisted Minimally Invasive Surgery. , 2020, , . | | 5 |
| 31 | Novel Design and Lateral Stability Tracking Control of a Four-Wheeled Rollator. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 2327. | 2.5 | 17 |
| 32 | Design and Integration of Electrical Bio-impedance Sensing in Surgical Robotic Tools for Tissue Identification and Display. <i>Frontiers in Robotics and AI</i> , 2019, 6, 55. | 3.2 | 20 |
| 33 | Manipulability Optimization Control of a Serial Redundant Robot for Robot-assisted Minimally Invasive Surgery. , 2019, , . | | 31 |
| 34 | A Fast and Robust Deep Convolutional Neural Networks for Complex Human Activity Recognition Using Smartphone. <i>Sensors</i> , 2019, 19, 3731. | 3.8 | 79 |
| 35 | Towards Model-Free Tool Dynamic Identification and Calibration Using Multi-Layer Neural Network. <i>Sensors</i> , 2019, 19, 3636. | 3.8 | 32 |
| 36 | Neural Network Enhanced Robot Tool Identification and Calibration for Bilateral Teleoperation. <i>IEEE Access</i> , 2019, 7, 122041-122051. | 4.2 | 37 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Deep Neural Network Approach in Human-Like Redundancy Optimization for Anthropomorphic Manipulators. IEEE Access, 2019, 7, 124207-124216. | 4.2 | 55 |
| 38 | 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 |
| 39 | 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 |
| 40 | Deep-Onto-network for surgical workflow and context recognition. International Journal of Computer Assisted Radiology and Surgery, 2019, 14, 685-696. | 2.8 | 44 |
| 41 | FCNN-based axon segmentation for convection-enhanced delivery optimization. International Journal of Computer Assisted Radiology and Surgery, 2019, 14, 493-499. | 2.8 | 6 |
| 42 | Analysis for the design of a novel integrated framework for the return to work of wheelchair users. Work, 2019, 61, 603-625. | 1.1 | 12 |
| 43 | Performance metrics for guidance active constraints in surgical robotics. International Journal of Medical Robotics and Computer Assisted Surgery, 2018, 14, e1873. | 2.3 | 5 |
| 44 | StimTrack: An open-source software for manual transcranial magnetic stimulation coil positioning. Journal of Neuroscience Methods, 2018, 293, 97-104. | 2.5 | 6 |
| 45 | Neural and Physiological Measures to Classify User's Intention and Control Exoskeletons for Rehabilitation or Assistance: The Experience @NearLab. Mechanisms and Machine Science, 2018, , 735-745. | 0.5 | 1 |
| 46 | Development of an intelligent surgical training system for Thoracentesis. Artificial Intelligence in Medicine, 2018, 84, 50-63. | 6.5 | 25 |
| 47 | Skill-based human-robot cooperation in tele-operated path tracking. Autonomous Robots, 2018, 42, 997-1009. | 4.8 | 22 |
| 48 | Validation of a bench-top culturing and electrophysiological recording chamber for neurophysiological trials. , 2018, , . | | 1 |
| 49 | Online human-like redundancy optimization for tele-operated anthropomorphic manipulators. International Journal of Advanced Robotic Systems, 2018, 15, 172988141881469. | 2.1 | 40 |
| 50 | Safety-Enhanced Human-Robot Interaction Control of Redundant Robot for Teleoperated Minimally Invasive Surgery. , 2018, , . | | 35 |
| 51 | Robotic Assistance-as-Needed for Enhanced Visuomotor Learning in Surgical Robotics Training: An Experimental Study. , 2018, , . | | 27 |
| 52 | Safety-enhanced Collaborative Framework for Tele-operated Minimally Invasive Surgery Using a 7-DoF Torque-controlled Robot. International Journal of Control, Automation and Systems, 2018, 16, 2915-2923. | 2.7 | 53 |
| 53 | Assessment of the usability of an immersive virtual supermarket for the cognitive rehabilitation of elderly patients: A pilot study on young adults. , 2018, , . | | 18 |
| 54 | Toward a standard ontology of surgical process models. International Journal of Computer Assisted Radiology and Surgery, 2018, 13, 1397-1408. | 2.8 | 54 |

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| 55 | 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 |
| 56 | 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 |
| 57 | The introduction of capillary structures in 4D simulated vascular tree for ART 3.5D algorithm further validation. , 2017, , . | | 0 |
| 58 | Analysis of Joint and Hand Impedance During Teleoperation and Free-Hand Task Execution. <i>IEEE Robotics and Automation Letters</i> , 2017, 2, 1733-1739. | 5.1 | 8 |
| 59 | Whole-Body Movements in Long-Term Weightlessness: Hierarchies of the Controlled Variables Are Gravity-Dependent. <i>Journal of Motor Behavior</i> , 2017, 49, 568-579. | 0.9 | 5 |
| 60 | Toward a Knowledge-Driven Context-Aware System for Surgical Assistance. <i>Journal of Medical Robotics Research</i> , 2017, 02, 1740007. | 1.2 | 6 |
| 61 | 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 |
| 62 | Inductive Learning of the Surgical Workflow Model through Video Annotations. , 2017, , . | | 3 |
| 63 | Virtual reality navigation system for prostate biopsy. , 2017, , . | | 4 |
| 64 | 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 |
| 65 | 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 |
| 66 | 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 |
| 67 | The Neural Correlates of Long-Term Carryover following Functional Electrical Stimulation for Stroke. <i>Neural Plasticity</i> , 2016, 2016, 1-13. | 2.2 | 41 |
| 68 | 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> , 2016, 2016, 1-19. | 1.7 | 15 |
| 69 | 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 |
| 70 | 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 |
| 71 | Development of a bench-top device for parallel climate-controlled recordings of neuronal cultures activity with microelectrode arrays. <i>Biotechnology and Bioengineering</i> , 2016, 113, 403-413. | 3.3 | 5 |
| 72 | Fluoroscopy-based tracking of femoral kinematics with statistical shape models. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2016, 11, 757-765. | 2.8 | 6 |

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|----|--|------|-----------|
| 73 | A dynamic non-energy-storing guidance constraint with motion redirection for robot-assisted surgery. , 2016, , . | | 9 |
| 74 | Gesteme-free context-aware adaptation of robot behavior in humanâ€“robot cooperation. Artificial Intelligence in Medicine, 2016, 74, 32-43. | 6.5 | 6 |
| 75 | ART 3.5D: an algorithm to label arteries and veins from three-dimensional angiography. Journal of Medical Imaging, 2016, 3, 044002. | 1.5 | 2 |
| 76 | A Computational Model of the Cerebellum to Simulate Cortical Degeneration During a Pavlovian Associative Paradigm. IFMBE Proceedings, 2016, , 1069-1074. | 0.3 | 2 |
| 77 | Gaussian mixture models based 2Dâ€“3D registration of bone shapes for orthopedic surgery planning. Medical and Biological Engineering and Computing, 2016, 54, 1727-1740. | 2.8 | 17 |
| 78 | Neuro-Mechanics of Recumbent Leg Cycling in Post-Acute Stroke Patients. Annals of Biomedical Engineering, 2016, 44, 3238-3251. | 2.5 | 32 |
| 79 | Nonlinear Force Feedback Enhancement for Cooperative Robotic Neurosurgery Enforces Virtual Boundaries on Cortex Surface. Journal of Medical Robotics Research, 2016, 01, 1650001. | 1.2 | 4 |
| 80 | Enhanced torqueâ€“based impedance control to assist brain targeting during openâ€“skull neurosurgery: a feasibility study. International Journal of Medical Robotics and Computer Assisted Surgery, 2016, 12, 326-341. | 2.3 | 9 |
| 81 | Haptics in Robot-Assisted Surgery: Challenges and Benefits. IEEE Reviews in Biomedical Engineering, 2016, 9, 49-65. | 18.0 | 167 |
| 82 | Handâ€“toolâ€“tissue interaction forces in neurosurgery for haptic rendering. Medical and Biological Engineering and Computing, 2016, 54, 1229-1241. | 2.8 | 11 |
| 83 | A method for the assessment of time-varying brain shift during navigated epilepsy surgery. International Journal of Computer Assisted Radiology and Surgery, 2016, 11, 473-481. | 2.8 | 12 |
| 84 | Neuro-mechanics of muscle coordination during recumbent pedaling in post-acute stroke patients. , 2015, 2015, 246-9. | | 2 |
| 85 | Adaptive Hands-On Control for Reaching and Targeting Tasks in Surgery. International Journal of Advanced Robotic Systems, 2015, 12, 50. | 2.1 | 22 |
| 86 | Distributed cerebellar plasticity implements generalized multiple-scale memory components in real-robot sensorimotor tasks. Frontiers in Computational Neuroscience, 2015, 9, 24. | 2.1 | 64 |
| 87 | A Low-Noise, Modular, and Versatile Analog Front-End Intended for Processing In Vitro Neuronal Signals Detected by Microelectrode Arrays. Computational Intelligence and Neuroscience, 2015, 2015, 1-15. | 1.7 | 10 |
| 88 | 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 |
| 89 | Review of Robotic Technology for Stereotactic Neurosurgery. IEEE Reviews in Biomedical Engineering, 2015, 8, 125-137. | 18.0 | 75 |
| 90 | Robot assisted stapedotomy ex vivo with an active handheld instrument. , 2015, 2015, 4879-82. | | 3 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 91 | 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 24 rgBT /Ov | 0.9 | 14 |
| 92 | A new handheld electromagnetic cortical stimulator for brain mapping during open skull neurosurgery: a feasibility study. , 2015, 2015, 3387-90. | | 1 |
| 93 | Redundancy optimization strategy for hands-on robotic surgery. , 2015, 2015, 4857-60. | | 0 |
| 94 | Recognition of user's activity for adaptive cooperative assistance in robotic surgery. , 2015, 2015, 5276-9. | | 1 |
| 95 | A multi-channel biomimetic neuroprosthesis to support treadmill gait training in stroke patients. , 2015, 2015, 7159-62. | | 7 |
| 96 | Down-sizing of neuronal network activity and density of presynaptic terminals by pathological acidosis are efficiently prevented by Diminazene Aceturate. Brain, Behavior, and Immunity, 2015, 45, 263-276. | 4.1 | 27 |
| 97 | A Quaternion-Based Unscented Kalman Filter for Robust Optical/Inertial Motion Tracking in Computer-Assisted Surgery. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 2291-2301. | 4.7 | 57 |
| 98 | Validation of a Quantitative Single-Subject Based Evaluation for Rehabilitation-Induced Improvement Assessment. Annals of Biomedical Engineering, 2015, 43, 2686-2698. | 2.5 | 13 |
| 99 | Medical Robotics. , 2015, , 3-35. | | 0 |
| 100 | Event-based device-behavior switching in surgical human-robot interaction. , 2014, , . | | 5 |
| 101 | Validation of a stereo camera system to quantify brain deformation due to breathing and pulsatility. Medical Physics, 2014, 41, 113502. | 3.0 | 27 |
| 102 | Functional and usability assessment of a robotic exoskeleton arm to support activities of daily life. Robotica, 2014, 32, 1213-1224. | 1.9 | 33 |
| 103 | Hip joint centre position estimation using a dual unscented Kalman filter for computer-assisted orthopaedic surgery. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2014, 228, 971-982. | 1.8 | 2 |
| 104 | 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 |
| 105 | Automatic classification of epilepsy types using ontology-based and genetics-based machine learning. Artificial Intelligence in Medicine, 2014, 61, 79-88. | 6.5 | 53 |
| 106 | Re-thinking the role of motor cortex: Context-sensitive motor outputs?. NeuroImage, 2014, 91, 366-374. | 4.2 | 81 |
| 107 | Validation of FreeSurfer-Estimated Brain Cortical Thickness: Comparison with Histologic Measurements. Neuroinformatics, 2014, 12, 535-542. | 2.8 | 137 |
| 108 | Persistent acidosis affects electrophysiological transmission and synaptic homeostasis of neuronal networks. Journal of Neuroimmunology, 2014, 275, 146-147. | 2.3 | 0 |

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|-----|--|-----|-----------|
| 109 | An Automatic Identification Procedure to Promote the use of FES-Cycling Training for Hemiparetic Patients. <i>Journal of Healthcare Engineering</i> , 2014, 5, 275-292. | 1.9 | 14 |
| 110 | Multi-trajectories automatic planner for StereoElectroEncephaloGraphy (SEEG). <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2014, 9, 1087-1097. | 2.8 | 63 |
| 111 | Convergence Analysis of an Iterative Targeting Method for Keyhole Robotic Surgery. <i>International Journal of Advanced Robotic Systems</i> , 2014, 11, 60. | 2.1 | 4 |
| 112 | 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 |
| 113 | MUNDUS project: Multimodal Neuroprosthesis for daily Upper limb Support. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2013, 10, 66. | 4.6 | 115 |
| 114 | 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 |
| 115 | Automatic Trajectory Planner for StereoElectroEncephaloGraphy Procedures: A Retrospective Study. <i>IEEE Transactions on Biomedical Engineering</i> , 2013, 60, 986-993. | 4.2 | 51 |
| 116 | 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 |
| 117 | Hip joint centre localisation with an unscented Kalman filter. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2013, 16, 1319-1329. | 1.6 | 5 |
| 118 | The Influence of Neuronal Density and Maturation on Network Activity of Hippocampal Cell Cultures: A Methodological Study. <i>PLoS ONE</i> , 2013, 8, e83899. | 2.5 | 113 |
| 119 | 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 |
| 120 | Application of unscented Kalman filter for robust pose estimation in image-guided surgery. <i>Proceedings of SPIE</i> , 2012, , . | 0.8 | 1 |
| 121 | Accurate multi-robot targeting for keyhole neurosurgery based on external sensor monitoring. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2012, 226, 347-359. | 1.8 | 18 |
| 122 | Biomimetic NMES controller for arm movements supported by a passive exoskeleton. , 2012, 2012, 1888-91. | | 6 |
| 123 | A microfluidic platform for controlled biochemical stimulation of twin neuronal networks. <i>Biomicrofluidics</i> , 2012, 6, 024106. | 2.4 | 37 |
| 124 | Risk-based path planning for a steerable flexible probe for neurosurgical intervention. , 2012, , . | | 16 |
| 125 | Error-enhancing robot therapy to induce motor control improvement in childhood onset primary dystonia. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2012, 9, 46. | 4.6 | 18 |
| 126 | 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 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 127 | Modular multiple sensors information management for computer-integrated surgery. International Journal of Medical Robotics and Computer Assisted Surgery, 2012, 8, 253-260. | 2.3 | 4 |
| 128 | A novel environmental chamber for neuronal network multisite recordings. Biotechnology and Bioengineering, 2012, 109, 2553-2566. | 3.3 | 15 |
| 129 | Reaching while standing in microgravity: a new postural solution to oversimplify movement control. Experimental Brain Research, 2012, 216, 203-215. | 1.5 | 25 |
| 130 | Paper 1: Evaluation of Acetabular Contact Areas and Femoral Head Motion In Vivo During Pivoting Motion of the Hip. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2011, 27, e1-e2. | 2.7 | 1 |
| 131 | Optically tracked multi-robot system for keyhole neurosurgery. , 2011, , . | | 16 |
| 132 | Functional Evaluation and Rehabilitation Engineering. IEEE Pulse, 2011, 2, 24-34. | 0.3 | 7 |
| 133 | Medical Robotics. IEEE Pulse, 2011, 2, 55-61. | 0.3 | 8 |
| 134 | Robotic burrowing in brain parenchyma tissue. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 14307-14311. | 0.4 | 1 |
| 135 | Accurate calibration method for 3D freehand ultrasound probe using virtual plane. Medical Physics, 2011, 38, 6710-6720. | 3.0 | 11 |
| 136 | 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 |
| 137 | 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 |
| 138 | Force feedback in a piezoelectric linear actuator for neurosurgery. International Journal of Medical Robotics and Computer Assisted Surgery, 2011, 7, 268-275. | 2.3 | 37 |
| 139 | A new cross-correlation algorithm for the analysis of "in vitro" neuronal network activity aimed at pharmacological studies. Journal of Neuroscience Methods, 2011, 199, 321-327. | 2.5 | 13 |
| 140 | Sensors management in robotic neurosurgery: The ROBOCAST project. , 2011, 2011, 2119-22. | | 2 |
| 141 | A novel biofeedback cycling training to improve gait symmetry in stroke patients: A case series study. , 2011, 2011, 5975495. | | 9 |
| 142 | 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 |
| 143 | Cycling Induced by Electrical Stimulation Improves Motor Recovery in Postacute Hemiparetic Patients. Stroke, 2011, 42, 1068-1073. | 2.0 | 116 |
| 144 | An EMG-controlled neuroprosthesis for daily upper limb support: A preliminary study. , 2011, 2011, 4259-62. | | 13 |

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|-----|--|------|-----------|
| 145 | A novel video-based method using projected light to measure trunk volumes during respiration. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2011, 14, 707-713. | 1.6 | 3 |
| 146 | Simultaneous measures of kinematics and fMRI: relation between movement parameters and activation maps in healthy subjects. , 2010, , . | | 0 |
| 147 | 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 |
| 148 | Markerless Motion Capture through Visual Hull, Articulated ICP and Subject Specific Model Generation. <i>International Journal of Computer Vision</i> , 2010, 87, 156-169. | 15.6 | 155 |
| 149 | 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 |
| 150 | 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 |
| 151 | ACCURACY CHARACTERIZATION OF AN INTEGRATED OPTICAL-BASED METHOD FOR LOADS MEASUREMENT IN COMPUTER AIDED SURGERY. <i>Journal of Mechanics in Medicine and Biology</i> , 2010, 10, 577-591. | 0.7 | 4 |
| 152 | Method for the estimation of a double hinge kinematic model for the trapeziometacarpal joint using MR imaging. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2010, 13, 387-396. | 1.6 | 19 |
| 153 | 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 |
| 154 | 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 |
| 155 | Miniaturized rigid probe driver with haptic loop control for neurosurgical interventions. , 2010, , . | | 7 |
| 156 | Experimental validation of A-mode ultrasound acquisition system for computer assisted orthopaedic surgery. <i>Proceedings of SPIE</i> , 2009, , . | 0.8 | 3 |
| 157 | Monitoring muscle metabolic indexes by time-domain near-infrared spectroscopy during knee flex-extension induced by functional electrical stimulation. <i>Journal of Biomedical Optics</i> , 2009, 14, 044011. | 2.6 | 16 |
| 158 | In-vitro experimental assessment of a new robust algorithm for hip joint centre estimation. <i>Journal of Biomechanics</i> , 2009, 42, 989-995. | 2.1 | 23 |
| 159 | Effects of Parkinson's disease on proprioceptive control of posture and reaching while standing. <i>Neuroscience</i> , 2009, 158, 1206-1214. | 2.3 | 53 |
| 160 | Measurement of the local muscular metabolism by time-domain near infrared spectroscopy during knee flex-extension induced by functional electrical stimulation. , 2009, , . | | 0 |
| 161 | A mathematical tool to generate complex whole body motor tasks and test hypotheses on underlying motor planning. <i>Medical and Biological Engineering and Computing</i> , 2008, 46, 11-22. | 2.8 | 7 |
| 162 | Robotic alignment of femoral cutting mask during total knee arthroplasty. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2008, 3, 413-419. | 2.8 | 8 |

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