

# Elena De Momi

## List of Publications by Year in descending order

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200  
papers

5,051  
citations

94433

37  
h-index

133252

59  
g-index

202  
all docs

202  
docs citations

202  
times ranked

4839  
citing authors

#	ARTICLE	IF	CITATIONS
1	Pick the Right Co-Worker: Online Assessment of Cognitive Ergonomics in Human-Robot Collaborative Assembly. IEEE Transactions on Cognitive and Developmental Systems, 2023, 15, 1928-1937.	3.8	18
2	An Incremental Learning Framework for Human-Like Redundancy Optimization of Anthropomorphic Manipulators. IEEE Transactions on Industrial Informatics, 2022, 18, 1864-1872.	11.3	90
3	Inverse Reinforcement Learning Intra-Operative Path Planning for Steerable Needle. IEEE Transactions on Biomedical Engineering, 2022, 69, 1995-2005.	4.2	10
4	Design, Computational Modelling and Experimental Characterization of Bistable Hybrid Soft Actuators for a Controllable-Compliance Joint of an Exoskeleton Rehabilitation Robot. Actuators, 2022, 11, 32.	2.3	5
5	Autonomous robotic surgery makes light work of anastomosis. Science Robotics, 2022, 7, eabn6522.	17.6	4
6	AIM in Medical Robotics. , 2022, , 825-833.		0
7	AIM in Endoscopy Procedures. , 2022, , 939-949.		0
8	Real-time vessel segmentation and reconstruction for virtual fixtures for an active handheld microneurosurgical instrument. International Journal of Computer Assisted Radiology and Surgery, 2022, 17, 1069-1077.	2.8	4
9	Quantitative Physical Ergonomics Assessment of Teleoperation Interfaces. IEEE Transactions on Human-Machine Systems, 2022, 52, 169-180.	3.5	8
10	A Physical Simulator Integrated with Soft Sensors for Mastering Tissue Manipulation in Robotic Surgery. , 2022, , .		4
11	EMG-driven control in lower limb prostheses: a topic-based systematic review. Journal of NeuroEngineering and Rehabilitation, 2022, 19, 43.	4.6	23
12	Learning intraoperative organ manipulation with context-based reinforcement learning. International Journal of Computer Assisted Radiology and Surgery, 2022, 17, 1419-1427.	2.8	3
13	Teleoperation Control of an Underactuated Bionic Hand: Comparison between Wearable and Vision-Tracking-Based Methods. Robotics, 2022, 11, 61.	3.5	8
14	An Easy and User Independent Augmented Reality Based Navigation System for Radiation-Free Interventional Procedure. , 2022, , .		1
15	A Hybrid Learning and Optimization Framework to Achieve Physically Interactive Tasks With Mobile Manipulators. IEEE Robotics and Automation Letters, 2022, 7, 8036-8043.	5.1	6
16	Robot-assisted ex vivo neobladder reconstruction: preliminary results of surgical skill evaluation. International Journal of Computer Assisted Radiology and Surgery, 2022, 17, 2315-2323.	2.8	1
17	Surgical planning assistance in keyhole and percutaneous surgery: A systematic review. Medical Image Analysis, 2021, 67, 101820.	11.6	12
18	Towards realistic laparoscopic image generation using image-domain translation. Computer Methods and Programs in Biomedicine, 2021, 200, 105834.	4.7	22

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19	Autonomy in Surgical Robotics. Annual Review of Control, Robotics, and Autonomous Systems, 2021, 4, 651-679.	11.8	79
20	Experimental validation of manipulability optimization control of a 7-DOF serial manipulator for robot-assisted surgery. International Journal of Medical Robotics and Computer Assisted Surgery, 2021, 17, 1-11.	2.3	7
21	Infusion Mechanisms in Brain White Matter and Their Dependence on Microstructure: An Experimental Study of Hydraulic Permeability. IEEE Transactions on Biomedical Engineering, 2021, 68, 1229-1237.	4.2	19
22	Integrating Diffusion Tensor Imaging and Neurite Orientation Dispersion and Density Imaging to Improve the Predictive Capabilities of CED Models. Annals of Biomedical Engineering, 2021, 49, 689-702.	2.5	8
23	Skill-Oriented and Performance-Driven Adaptive Curricula for Training in Robot-Assisted Surgery Using Simulators: A Feasibility Study. IEEE Transactions on Biomedical Engineering, 2021, 68, 685-694.	4.2	19
24	NephCNN: A deep-learning framework for vessel segmentation in nephrectomy laparoscopic videos. , 2021, , .		4
25	A Lumen Segmentation Method in Ureteroscopy Images based on a Deep Residual U-Net architecture. , 2021, , .		3
26	AIM in Medical Robotics. , 2021, , 1-9.		0
27	Deep Neural Network Approach in EMG-Based Force Estimation for Human-Robot Interaction. IEEE Transactions on Artificial Intelligence, 2021, 2, 404-412.	4.7	35
28	An Open-Source COVID-19 CT Dataset with Automatic Lung Tissue Classification for Radiomics. Bioengineering, 2021, 8, 26.	3.5	21
29	Data Augmentation of 3D Brain Environment Using Deep Convolutional Refined Auto-Encoding Alpha GAN. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 269-272.	3.2	10
30	A Comparative Study of Spatio-Temporal U-Nets for Tissue Segmentation in Surgical Robotics. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 53-63.	3.2	8
31	Psychomotor skills development for Veress needle placement using a virtual reality and haptics-based simulator. International Journal of Computer Assisted Radiology and Surgery, 2021, 16, 639-647.	2.8	7
32	Deep Learning for Automatic Segmentation of Oral and Oropharyngeal Cancer Using Narrow Band Imaging: Preliminary Experience in a Clinical Perspective. Frontiers in Oncology, 2021, 11, 626602.	2.8	37
33	Glioma biopsies Classification Using Raman Spectroscopy and Machine Learning Models on Fresh Tissue Samples. Cancers, 2021, 13, 1073.	3.7	42
34	Path planning for endovascular catheterization under curvature constraints via two-phase searching approach. International Journal of Computer Assisted Radiology and Surgery, 2021, 16, 619-627.	2.8	10
35	A novel autonomous learning framework to enhance sEMG-based hand gesture recognition using depth information. Biomedical Signal Processing and Control, 2021, 66, 102444.	5.7	27
36	Toward Teaching by Demonstration for Robot-Assisted Minimally Invasive Surgery. IEEE Transactions on Automation Science and Engineering, 2021, 18, 484-494.	5.2	116

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37	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
38	Using spatial-temporal ensembles of convolutional neural networks for lumen segmentation in ureteroscopy. International Journal of Computer Assisted Radiology and Surgery, 2021, 16, 915-922.	2.8	7
39	A shape-constraint adversarial framework with instance-normalized spatio-temporal features for inter-fetal membrane segmentation. Medical Image Analysis, 2021, 70, 102008.	11.6	17
40	Position-Based Dynamics Simulator of Brain Deformations for Path Planning and Intra-Operative Control in Keyhole Neurosurgery. IEEE Robotics and Automation Letters, 2021, 6, 6061-6067.	5.1	11
41	Whole-body Spatial Teleoperation Control of a Hexapod Robot in Unstructured Environment. , 2021, , .		3
42	An Evolutionary-Optimized Surgical Path Planner for a Programmable Bevel-Tip Needle. IEEE Transactions on Robotics, 2021, 37, 1039-1050.	10.3	17
43	Raman Spectroscopy and Machine Learning for IDH Genotyping of Unprocessed Glioma Biopsies. Cancers, 2021, 13, 4196.	3.7	23
44	An Integrated Dynamic Method for Allocating Roles and Planning Tasks for Mixed Human-Robot Teams. , 2021, , .		8
45	On the microstructural origin of brain white matter hydraulic permeability. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	13
46	Nonlinear Model Predictive Control for Mobile Medical Robot Using Neural Optimization. IEEE Transactions on Industrial Electronics, 2021, 68, 12636-12645.	7.9	33
47	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
48	Multi-Sensory Guidance and Feedback for Simulation-Based Training in Robot Assisted Surgery: A Preliminary Comparison of Visual, Haptic, and Visuo-Haptic. IEEE Robotics and Automation Letters, 2021, 6, 3801-3808.	5.1	9
49	AIM in Endoscopy Procedures. , 2021, , 1-11.		0
50	Learned Task Space Control to Reduce the Effort in Controlling Redundant Surgical Robots. Mechanisms and Machine Science, 2021, , 161-168.	0.5	2
51	Automating Endoscope Motion in Robotic Surgery: A Usability Study on da Vinci-Assisted Ex Vivo Neobladder Reconstruction. Frontiers in Robotics and AI, 2021, 8, 707704.	3.2	11
52	A Reconfigurable Interface for Ergonomic and Dynamic Tele-Locomanipulation. , 2021, , .		7
53	Enhanced Vision to Improve Safety in Robotic Surgery. , 2020, , 223-237.		3
54	An Experimental Comparison Towards Autonomous Camera Navigation to Optimize Training in Robot Assisted Surgery. IEEE Robotics and Automation Letters, 2020, 5, 1461-1467.	5.1	17

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55	Inter-foetus Membrane Segmentation for TTTS Using Adversarial Networks. <i>Annals of Biomedical Engineering</i> , 2020, 48, 848-859.	2.5	20
56	Bilateral Teleoperation Control of a Redundant Manipulator with an RCM Kinematic Constraint. , 2020, , .		20
57	Internet of Things (IoT)-based Collaborative Control of a Redundant Manipulator for Teleoperated Minimally Invasive Surgeries. , 2020, , .		32
58	Artificial intelligence for brain diseases: A systematic review. <i>APL Bioengineering</i> , 2020, 4, 041503.	6.2	76
59	Hierarchical Task Impedance Control of a Serial Manipulator for Minimally Invasive Surgery. , 2020, , .		1
60	Hybrid Machine Learning-Neuromusculoskeletal Modeling for Control of Lower Limb Prosthetics. , 2020, , .		13
61	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
62	A Real-time Tool for Human Ergonomics Assessment based on Joint Compressive Forces. , 2020, , .		8
63	Machine Learning Driven Human Skill Transferring for Control of Anthropomorphic Manipulators. , 2020, , .		2
64	GA3C Reinforcement Learning for Surgical Steerable Catheter Path Planning. , 2020, , .		13
65	What Does a Brain Feel Like?. <i>Journal of Chemical Education</i> , 2020, 97, 4078-4083.	2.3	1
66	Reinforcement Learning Based Manipulation Skill Transferring for Robot-assisted Minimally Invasive Surgery. , 2020, , .		10
67	Model-Based Robust Pose Estimation for a Multi-Segment, Programmable Bevel-Tip Steerable Needle. <i>IEEE Robotics and Automation Letters</i> , 2020, 5, 6780-6787.	5.1	15
68	An Online Method to Detect and Locate an External Load on the Human Body with Applications in Ergonomics Assessment. <i>Sensors</i> , 2020, 20, 4471.	3.8	5
69	An Evaluation of Inanimate and Virtual Reality Training for Psychomotor Skill Development in Robot-Assisted Minimally Invasive Surgery. <i>IEEE Transactions on Medical Robotics and Bionics</i> , 2020, 2, 118-129.	3.2	15
70	Data reduction and data visualization for automatic diagnosis using gene expression and clinical data. <i>Artificial Intelligence in Medicine</i> , 2020, 107, 101884.	6.5	8
71	Transfer learning for informative-frame selection in laryngoscopic videos through learned features. <i>Medical and Biological Engineering and Computing</i> , 2020, 58, 1225-1238.	2.8	27
72	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

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73	Deep Neural Network Approach in Robot Tool Dynamics Identification for Bilateral Teleoperation. IEEE Robotics and Automation Letters, 2020, 5, 2943-2949.	5.1	124
74	A Review on Advances in Intra-operative Imaging for Surgery and Therapy: Imagining the Operating Room of the Future. Annals of Biomedical Engineering, 2020, 48, 2171-2191.	2.5	29
75	Depth vision guided hand gesture recognition using electromyographic signals. Advanced Robotics, 2020, 34, 985-997.	1.8	49
76	Evaluation of an acceleration-based assistive strategy to control a back-support exoskeleton for manual material handling. Wearable Technologies, 2020, 1, .	3.1	14
77	SCAN: System for Camera Autonomous Navigation in Robotic-Assisted Surgery. , 2020, , .		16
78	Toward a Neural-Symbolic Framework for Automated Workflow Analysis in Surgery. IFMBE Proceedings, 2020, , 1551-1558.	0.3	1
79	Human Activity Recognition Enhanced Robot-Assisted Minimally Invasive Surgery. Mechanisms and Machine Science, 2020, , 121-129.	0.5	1
80	Improving Motion Planning for Surgical Robot with Active Constraints. , 2020, , .		4
81	Optimal Pose Estimation Method for a Multi-Segment, Programmable Bevel-Tip Steerable Needle. , 2020, , .		0
82	Hierarchical optimization Control of Redundant Manipulator for Robot-assisted Minimally Invasive Surgery. , 2020, , .		5
83	An Uncontrolled Manifold Analysis of Arm Joint Variability in Virtual Planar Position and Orientation Telemanipulation. IEEE Transactions on Biomedical Engineering, 2019, 66, 391-402.	4.2	18
84	Automated Steerable Path Planning for Deep Brain Stimulation Safeguarding Fiber Tracts and Deep Gray Matter Nuclei. Frontiers in Robotics and AI, 2019, 6, 70.	3.2	19
85	Novel Design and Lateral Stability Tracking Control of a Four-Wheeled Rollator. Applied Sciences (Switzerland), 2019, 9, 2327.	2.5	17
86	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
87	A New Overloading Fatigue Model for Ergonomic Risk Assessment with Application to Human-Robot Collaboration. , 2019, , .		30
88	Manipulability Optimization Control of a Serial Redundant Robot for Robot-assisted Minimally Invasive Surgery. , 2019, , .		31
89	A Fast and Robust Deep Convolutional Neural Networks for Complex Human Activity Recognition Using Smartphone. Sensors, 2019, 19, 3731.	3.8	79
90	Sizing the aortic annulus with a robotised, commercially available soft balloon catheter: in vitro study on idealised phantoms. , 2019, , .		8

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91	Towards Model-Free Tool Dynamic Identification and Calibration Using Multi-Layer Neural Network. Sensors, 2019, 19, 3636.	3.8	32
92	Weakly Supervised Recognition of Surgical Gestures. , 2019, , .		20
93	Neural Network Enhanced Robot Tool Identification and Calibration for Bilateral Teleoperation. IEEE Access, 2019, 7, 122041-122051.	4.2	37
94	Deep Neural Network Approach in Human-Like Redundancy Optimization for Anthropomorphic Manipulators. IEEE Access, 2019, 7, 124207-124216.	4.2	55
95	Deep Learning Based Robotic Tool Detection and Articulation Estimation With Spatio-Temporal Layers. IEEE Robotics and Automation Letters, 2019, 4, 2714-2721.	5.1	81
96	A computational fluid dynamics approach to determine white matter permeability. Biomechanics and Modeling in Mechanobiology, 2019, 18, 1111-1122.	2.8	21
97	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
98	Learned and handcrafted features for early-stage laryngeal SCC diagnosis. Medical and Biological Engineering and Computing, 2019, 57, 2683-2692.	2.8	18
99	Deep-Onto-network for surgical workflow and context recognition. International Journal of Computer Assisted Radiology and Surgery, 2019, 14, 685-696.	2.8	44
100	FCNN-based axon segmentation for convection-enhanced delivery optimization. International Journal of Computer Assisted Radiology and Surgery, 2019, 14, 493-499.	2.8	6
101	Overview and Challenges for Controlling Back-Support Exoskeletons. Biosystems and Biorobotics, 2019, , 435-439.	0.3	1
102	Uncertainty-Aware Organ Classification for Surgical Data Science Applications in Laparoscopy. IEEE Transactions on Biomedical Engineering, 2018, 65, 2649-2659.	4.2	37
103	Learning-based classification of informative laryngoscopic frames. Computer Methods and Programs in Biomedicine, 2018, 158, 21-30.	4.7	39
104	Blood vessel segmentation algorithms - Review of methods, datasets and evaluation metrics. Computer Methods and Programs in Biomedicine, 2018, 158, 71-91.	4.7	369
105	Long Term Safety Area Tracking (LT-SAT) with online failure detection and recovery for robotic minimally invasive surgery. Medical Image Analysis, 2018, 45, 13-23.	11.6	15
106	Performance metrics for guidance active constraints in surgical robotics. International Journal of Medical Robotics and Computer Assisted Surgery, 2018, 14, e1873.	2.3	5
107	Development of an intelligent surgical training system for Thoracentesis. Artificial Intelligence in Medicine, 2018, 84, 50-63.	6.5	25
108	Skill-based human-robot cooperation in tele-operated path tracking. Autonomous Robots, 2018, 42, 997-1009.	4.8	22

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109	Biomimetic adaptive impedance control in physical Human Robot Interaction. , 2018, , .		2
110	Approaches for Action Sequence Representation in Robotics: A Review. , 2018, , .		5
111	Online human-like redundancy optimization for tele-operated anthropomorphic manipulators. International Journal of Advanced Robotic Systems, 2018, 15, 172988141881469.	2.1	40
112	Automatic Optimized 3D Path Planner for Steerable Catheters with Heuristic Search and Uncertainty Tolerance. , 2018, , .		16
113	Safety-Enhanced Human-Robot Interaction Control of Redundant Robot for Teleoperated Minimally Invasive Surgery. , 2018, , .		35
114	Robotic Assistance-as-Needed for Enhanced Visuomotor Learning in Surgical Robotics Training: An Experimental Study. , 2018, , .		27
115	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
116	Computer-assisted liver graft steatosis assessment via learning-based texture analysis. International Journal of Computer Assisted Radiology and Surgery, 2018, 13, 1357-1367.	2.8	29
117	Enhanced real-time pose estimation for closed-loop robotic manipulation of magnetically actuated capsule endoscopes. International Journal of Robotics Research, 2018, 37, 890-911.	8.5	94
118	EndoAbS dataset: Endoscopic abdominal stereo image dataset for benchmarking 3D stereo reconstruction algorithms. International Journal of Medical Robotics and Computer Assisted Surgery, 2018, 14, e1926.	2.3	20
119	A Synergistic Approach to the Real-Time Estimation of the Feet Ground Reaction Forces and Centers of Pressure in Humans With Application to Human-Robot Collaboration. IEEE Robotics and Automation Letters, 2018, 3, 3654-3661.	5.1	16
120	Toward Improving Safety in Neurosurgery with an Active Handheld Instrument. Annals of Biomedical Engineering, 2018, 46, 1450-1464.	2.5	29
121	Automatic multi-trajectory planning solution for steerable catheters. , 2018, , .		3
122	Gastric Cancer Screening in Low-Income Countries: System Design, Fabrication, and Analysis for an Ultralow-Cost Endoscopy Procedure. IEEE Robotics and Automation Magazine, 2017, 24, 73-81.	2.0	18
123	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
124	A new tool for touch-free patient registration for robot-assisted intracranial surgery: application accuracy from a phantom study and a retrospective surgical series. Neurosurgical Focus, 2017, 42, E8.	2.3	67
125	Intraoperative bone registration: An implementation in orthopaedic surgery using polaris vica system. , 2017, , .		0
126	Patellar instability: Traditional surgical interventions and a robotic approach. , 2017, , .		0



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127	Safe electrode trajectory planning in SEEG via MIP-based vessel segmentation. , 2017, , .		2
128	Toward a Knowledge-Driven Context-Aware System for Surgical Assistance. Journal of Medical Robotics Research, 2017, 02, 1740007.	1.2	6
129	Retrospective evaluation and SEEG trajectory analysis for interactive multi-trajectory planner assistant. International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 1727-1738.	2.8	25
130	3DSlicer module to perform registration: An intraoperative situation. , 2017, , .		0
131	Inductive Learning of the Surgical Workflow Model through Video Annotations. , 2017, , .		3
132	EnViSoRS: Enhanced Vision System for Robotic Surgery. A User-Defined Safety Volume Tracking to Minimize the Risk of Intraoperative Bleeding. Frontiers in Robotics and AI, 2017, 4, .	3.2	13
133	On the Value of Estimating Human Arm Stiffness during Virtual Teleoperation with Robotic Manipulators. Frontiers in Neuroscience, 2017, 11, 528.	2.8	12
134	Confident texture-based laryngeal tissue classification for early stage diagnosis support. Journal of Medical Imaging, 2017, 4, 1.	1.5	51
135	Straight trajectory planning for keyhole neurosurgery in sheep with automatic brain structures segmentation. Proceedings of SPIE, 2017, , .	0.8	1
136	A Neural Network-Based Approach for Trajectory Planning in Robotâ€“Human Handover Tasks. Frontiers in Robotics and AI, 2016, 3, .	3.2	40
137	Fluoroscopy-based tracking of femoral kinematics with statistical shape models. International Journal of Computer Assisted Radiology and Surgery, 2016, 11, 757-765.	2.8	6
138	Gesteme-free context-aware adaptation of robot behavior in humanâ€“robot cooperation. Artificial Intelligence in Medicine, 2016, 74, 32-43.	6.5	6
139	ART 3.5D: an algorithm to label arteries and veins from three-dimensional angiography. Journal of Medical Imaging, 2016, 3, 044002.	1.5	2
140	Component based design of a drug delivery capsule robot. Sensors and Actuators A: Physical, 2016, 245, 180-188.	4.1	19
141	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
142	Automatic workflow for narrow-band laryngeal video stitching. , 2016, 2016, 1188-1191.		8
143	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
144	Huntâ€“Crossley model based force control for minimally invasive robotic surgery. Biomedical Signal Processing and Control, 2016, 29, 31-43.	5.7	40

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145	Time-of-flight-assisted Kinect camera-based people detection for intuitive human robot cooperation in the surgical operating room. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2016, 11, 1329-1345.	2.8	11
146	Haptics in Robot-Assisted Surgery: Challenges and Benefits. <i>IEEE Reviews in Biomedical Engineering</i> , 2016, 9, 49-65.	18.0	167
147	Handâ€™toolâ€™tissue interaction forces in neurosurgery for haptic rendering. <i>Medical and Biological Engineering and Computing</i> , 2016, 54, 1229-1241.	2.8	11
148	Dense soft tissue 3D reconstruction refined with super-pixel segmentation for robotic abdominal surgery. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2016, 11, 197-206.	2.8	31
149	Adaptive Hands-On Control for Reaching and Targeting Tasks in Surgery. <i>International Journal of Advanced Robotic Systems</i> , 2015, 12, 50.	2.1	22
150	Review of Robotic Technology for Stereotactic Neurosurgery. <i>IEEE Reviews in Biomedical Engineering</i> , 2015, 8, 125-137.	18.0	75
151	Laparoscopic Tissue Retractor Based on Local Magnetic Actuation. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2015, 9, .	0.7	26
152	Robot assisted stapedotomy ex vivo with an active handheld instrument. , 2015, 2015, 4879-82.		3
153	A new handheld electromagnetic cortical stimulator for brain mapping during open skull neurosurgery: a feasibility study. , 2015, 2015, 3387-90.		1
154	Redundancy optimization strategy for hands-on robotic surgery. , 2015, 2015, 4857-60.		0
155	Recognition of user's activity for adaptive cooperative assistance in robotic surgery. , 2015, 2015, 5276-9.		1
156	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
157	Medical Robotics. , 2015, , 3-35.		0
158	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
159	Hip joint centre position estimation using a dual unscented Kalman filter for computer-assisted orthopaedic surgery. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2014, 228, 971-982.	1.8	2
160	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
161	Validation of FreeSurfer-Estimated Brain Cortical Thickness: Comparison with Histologic Measurements. <i>Neuroinformatics</i> , 2014, 12, 535-542.	2.8	137
162	Multi-trajectories automatic planner for StereoElectroEncephaloGraphy (SEEG). <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2014, 9, 1087-1097.	2.8	63

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163	Convergence Analysis of an Iterative Targeting Method for Keyhole Robotic Surgery. International Journal of Advanced Robotic Systems, 2014, 11, 60.	2.1	4
164	Unscented Kalman Filter Based Sensor Fusion for Robust Optical and Electromagnetic Tracking in Surgical Navigation. IEEE Transactions on Instrumentation and Measurement, 2013, 62, 2067-2081.	4.7	63
165	Intraoperative forces and moments analysis on patient head clamp during awake brain surgery. Medical and Biological Engineering and Computing, 2013, 51, 331-341.	2.8	13
166	Multi kinect people detection for intuitive and safe human robot cooperation in the operating room. , 2013, , .		15
167	Automatic Trajectory Planner for StereoElectroEncephaloGraphy Procedures: A Retrospective Study. IEEE Transactions on Biomedical Engineering, 2013, 60, 986-993.	4.2	51
168	Coaxial Needle Insertion Assistant With Enhanced Force Feedback. IEEE Transactions on Biomedical Engineering, 2013, 60, 379-389.	4.2	43
169	Hip joint centre localisation with an unscented Kalman filter. Computer Methods in Biomechanics and Biomedical Engineering, 2013, 16, 1319-1329.	1.6	5
170	Application of unscented Kalman filter for robust pose estimation in image-guided surgery. Proceedings of SPIE, 2012, , .	0.8	1
171	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
172	Risk-based path planning for a steerable flexible probe for neurosurgical intervention. , 2012, , .		16
173	Modular multiple sensors information management for computerâ€integrated surgery. International Journal of Medical Robotics and Computer Assisted Surgery, 2012, 8, 253-260.	2.3	4
174	Optically tracked multi-robot system for keyhole neurosurgery. , 2011, , .		16
175	Medical Robotics. IEEE Pulse, 2011, 2, 55-61.	0.3	8
176	Accurate calibration method for 3D freehand ultrasound probe using virtual plane. Medical Physics, 2011, 38, 6710-6720.	3.0	11
177	Does computer-assisted surgery benefit leg length restoration in total hip replacement? Navigation versus conventional freehand. International Orthopaedics, 2011, 35, 19-24.	1.9	86
178	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
179	Sensors management in robotic neurosurgery: The ROBOCAST project. , 2011, 2011, 2119-22.		2
180	Experimental evaluation of a coaxial needle insertion assistant with enhanced force feedback. , 2011, 2011, 3447-50.		12

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181	Relationship between cutting errors and learning curve in computer-assisted total knee replacement. <i>International Orthopaedics</i> , 2010, 34, 655-662.	1.9	42
182	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
183	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
184	Miniaturized rigid probe driver with haptic loop control for neurosurgical interventions. , 2010, , .		7
185	Bi-unicompartamental versus total knee arthroplasty: a matched paired study with early clinical results. <i>Archives of Orthopaedic and Trauma Surgery</i> , 2009, 129, 1157-1163.	2.4	57
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