

Blake Hannaford

List of Publications by Year in descending order

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198
papers

10,969
citations

61984

43
h-index

37204

96
g-index

202
all docs

202
docs citations

202
times ranked

6123
citing authors

#	ARTICLE	IF	CITATIONS
1	Measurement and modeling of McKibben pneumatic artificial muscles. IEEE Transactions on Automation Science and Engineering, 1996, 12, 90-102.	2.3	1,262
2	A design framework for teleoperators with kinesthetic feedback. IEEE Transactions on Automation Science and Engineering, 1989, 5, 426-434.	2.3	804
3	Time-domain passivity control of haptic interfaces. IEEE Transactions on Automation Science and Engineering, 2002, 18, 1-10.	2.3	610
4	Stable haptic interaction with virtual environments. IEEE Transactions on Automation Science and Engineering, 1999, 15, 465-474.	2.3	523
5	An Ankle-Foot Orthosis Powered by Artificial Pneumatic Muscles. Journal of Applied Biomechanics, 2005, 21, 189-197.	0.8	337
6	Force-reflection and shared compliant control in operating telemanipulators with time delay. IEEE Transactions on Automation Science and Engineering, 1992, 8, 176-185.	2.3	314
7	Stable Teleoperation With Time-Domain Passivity Control. IEEE Transactions on Automation Science and Engineering, 2004, 20, 365-373.	2.3	310
8	Raven-II: An Open Platform for Surgical Robotics Research. IEEE Transactions on Biomedical Engineering, 2013, 60, 954-959.	4.2	304
9	Force controlled and teleoperated endoscopic grasper for minimally invasive surgery-experimental performance evaluation. IEEE Transactions on Biomedical Engineering, 1999, 46, 1212-1221.	4.2	289
10	Roles of the elements of the triphasic control signal. Experimental Neurology, 1985, 90, 619-634.	4.1	282
11	Markov modeling of minimally invasive surgery based on tool/tissue interaction and force/torque signatures for evaluating surgical skills. IEEE Transactions on Biomedical Engineering, 2001, 48, 579-591.	4.2	219
12	The RAVEN: Design and Validation of a Telesurgery System. International Journal of Robotics Research, 2009, 28, 1183-1197.	8.5	209
13	Evaluation of segmentation methods on head and neck <scp>CT</scp>: Autoâ€segmentation challenge 2015. Medical Physics, 2017, 44, 2020-2036.	3.0	198
14	Generalized Approach for Modeling Minimally Invasive Surgery as a Stochastic Process Using a Discrete Markov Model. IEEE Transactions on Biomedical Engineering, 2006, 53, 399-413.	4.2	195
15	Biomechanical Properties of Abdominal Organs In Vivo and Postmortem Under Compression Loads. Journal of Biomechanical Engineering, 2008, 130, 021020.	1.3	185
16	Artificial Muscles: Actuators for Biorobotic Systems. International Journal of Robotics Research, 2002, 21, 295-309.	8.5	180
17	Force Sensor Integrated Surgical Forceps for Minimally Invasive Robotic Surgery. IEEE Transactions on Robotics, 2015, 31, 1214-1224.	10.3	175
18	Accounting for Elastic Energy Storage in McKibben Artificial Muscle Actuators. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2000, 122, 386-388.	1.6	173

#	ARTICLE	IF	CITATIONS
19	A decade retrospective of medical robotics research from 2010 to 2020. <i>Science Robotics</i> , 2021, 6, eabi8017.	17.6	158
20	Optimization of a Spherical Mechanism for a Minimally Invasive Surgical Robot: Theoretical and Experimental Approaches. <i>IEEE Transactions on Biomedical Engineering</i> , 2006, 53, 1440-1445.	4.2	156
21	Smart surgical tools and augmenting devices. <i>IEEE Transactions on Automation Science and Engineering</i> , 2003, 19, 782-792.	2.3	155
22	Effects of applied vibration on triphasic electromyographic patterns in neurologically ballistic head movements. <i>Experimental Neurology</i> , 1985, 88, 447-460.	4.1	144
23	Control law design for haptic interfaces to virtual reality. <i>IEEE Transactions on Control Systems Technology</i> , 2002, 10, 3-13.	5.2	144
24	Time domain passivity control with reference energy following. <i>IEEE Transactions on Control Systems Technology</i> , 2005, 13, 737-742.	5.2	132
25	Skills evaluation in minimally invasive surgery using force/torque signatures. <i>Surgical Endoscopy and Other Interventional Techniques</i> , 2000, 14, 791-798.	2.4	128
26	Hidden Markov Model Analysis of Force/Torque Information in Telemanipulation. <i>International Journal of Robotics Research</i> , 1991, 10, 528-539.	8.5	118
27	Quantitative Evaluation of Perspective and Stereoscopic Displays in Three-Axis Manual Tracking Tasks. <i>IEEE Transactions on Systems, Man, and Cybernetics</i> , 1987, 17, 61-72.	0.9	109
28	Task Decomposition of Laparoscopic Surgery for Objective Evaluation of Surgical Residents' Learning Curve Using Hidden Markov Model. <i>Computer Aided Surgery</i> , 2002, 7, 49-61.	1.8	106
29	Virtual Reality Robotic Surgery Warm-Up Improves Task Performance in a Dry Laboratory Environment: A Prospective Randomized Controlled Study. <i>Journal of the American College of Surgeons</i> , 2013, 216, 1181-1192.	0.5	104
30	Assessment of Tissue Damage due to Mechanical Stresses. <i>International Journal of Robotics Research</i> , 2007, 26, 1159-1171.	8.5	102
31	Stability Guaranteed Control: Time Domain Passivity Approach. <i>IEEE Transactions on Control Systems Technology</i> , 2004, 12, 860-868.	5.2	86
32	Crowd-Sourced Assessment of Technical Skill: A Valid Method for Discriminating Basic Robotic Surgery Skills. <i>Journal of Endourology</i> , 2015, 29, 1295-1301.	2.1	75
33	Short Time Fourier Analysis of the Electromyogram: Fast Movements and Constant Contraction. <i>IEEE Transactions on Biomedical Engineering</i> , 1986, BME-33, 1173-1181.	4.2	74
34	Architectures for shared haptic virtual environments. <i>Computers and Graphics</i> , 1997, 21, 421-429.	2.5	69
35	Left ventricular dynamic geometry in the intact and open chest dog.. <i>Circulation Research</i> , 1982, 50, 573-589.	4.5	67
36	Semi-autonomous simulated brain tumor ablation with RAVENII Surgical Robot using behavior tree. , 2015, 2015, 3868-3875.		67

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37	Force-feedback grasper helps restore sense of touch in minimally invasive surgery,. Journal of Gastrointestinal Surgery, 1999, 3, 278-285.	1.7	59
38	The design of a ferrofluid magnetic pipette. IEEE Transactions on Biomedical Engineering, 1997, 44, 129-135.	4.2	57
39	An intrinsic mechanism for the oscillatory contraction of muscle. Biological Cybernetics, 1986, 53, 219-227.	1.3	56
40	Future of Robotic Surgery. Cancer Journal (Sudbury, Mass), 2013, 19, 109-119.	2.0	54
41	Electromyographic Evidence of Neurological Controller Signals with Viscous Load. Journal of Motor Behavior, 1984, 16, 255-274.	0.9	52
42	The anthroform biorobotic arm: A system for the study of spinal circuits. Annals of Biomedical Engineering, 1995, 23, 399-408.	2.5	51
43	Haptics. , 2008, , 719-739.		51
44	Crowd-sourced assessment of surgical skills in cricothyrotomy procedure. Journal of Surgical Research, 2015, 196, 302-306.	1.6	48
45	Haptics. Springer Handbooks, 2016, , 1063-1084.	0.6	47
46	Instrument Failures for the da Vinci Surgical System: a Food and Drug Administration MAUDE Database Study. Surgical Endoscopy and Other Interventional Techniques, 2013, 27, 1503-1508.	2.4	46
47	Teleoperation in surgical robotics – network latency effects on surgical performance. , 2009, 2009, 6860-3.		44
48	Actuator Properties and Movement Control: Biological and Technological Models. , 1990, , 101-120.		43
49	Approximating time-frequency density functions via optimal combinations of spectrograms. IEEE Signal Processing Letters, 1994, 1, 199-202.	3.6	43
50	Gaussian Process Regression for Sensorless Grip Force Estimation of Cable-Driven Elongated Surgical Instruments. IEEE Robotics and Automation Letters, 2017, 2, 1312-1319.	5.1	43
51	Task decomposition of laparoscopic surgery for objective evaluation of surgical residents' learning curve using hidden Markov Model. Computer Aided Surgery, 2002, 7, 49-61.	1.8	39
52	Perceptual thresholds for single vs. Multi-Finger Haptic interaction. , 2010, , .		38
53	Sliding Control of Force Reflecting Teleoperation:Preliminary Studies. Presence: Teleoperators and Virtual Environments, 1994, 3, 158-172.	0.6	36
54	Towards Better Surgical Instrument Segmentation in Endoscopic Vision: Multi-Angle Feature Aggregation and Contour Supervision. IEEE Robotics and Automation Letters, 2020, 5, 6639-6646.	5.1	36

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55	Utilizing Elasticity of Cable-Driven Surgical Robot to Estimate Cable Tension and External Force. IEEE Robotics and Automation Letters, 2017, 2, 1593-1600.	5.1	34
56	Single-chip velocity measurement system for incremental optical encoders. IEEE Transactions on Control Systems Technology, 1997, 5, 654-661.	5.2	32
57	Study of human forearm posture maintenance with a physiologically based robotic arm and spinal level neural controller. Biological Cybernetics, 1997, 76, 285-298.	1.3	32
58	Beyond task time: automated measurement augments fundamentals of laparoscopic skills methodology. Journal of Surgical Research, 2014, 192, 329-338.	1.6	31
59	A Model-Based Recurrent Neural Network With Randomness for Efficient Control With Applications. IEEE Transactions on Industrial Informatics, 2019, 15, 2054-2063.	11.3	31
60	Teleoperation Performance with a Kinetically Redundant Slave Robot. International Journal of Robotics Research, 1998, 17, 579-597.	8.5	30
61	A Laparoscopic Grasping Tool with Force Sensing Capability. IEEE/ASME Transactions on Mechatronics, 2015, , 1-1.	5.8	30
62	Measurement of the cable-pulley Coulomb and viscous friction for a cable-driven surgical robotic system. , 2015, , .		29
63	Experimental Internet Haptic Collaboration using Virtual Coupling Schemes. , 2008, , .		28
64	Multiportal Robotic Access to the Anterior Cranial Fossa: A Surgical and Engineering Feasibility Study. Otolaryngology - Head and Neck Surgery, 2013, 149, 940-946.	1.9	27
65	Surgical instrument segmentation for endoscopic vision with data fusion of cnn prediction and kinematic pose. , 2019, , .		27
66	Plugfest 2009: Global interoperability in Telerobotics and telemedicine. , 2010, 2010, 1733-1738.		26
67	Haptic characteristics of some activities of daily living. , 2010, , .		26
68	Real-time vision-based surgical tool segmentation with robot kinematics prior. , 2018, , .		26
69	In-vivo and in-situ compressive properties of porcine abdominal soft tissues. Studies in Health Technology and Informatics, 2003, 94, 26-32.	0.3	26
70	The Blue DRAGON—a system for monitoring the kinematics and the dynamics of endoscopic tools in minimally invasive surgery for objective laparoscopic skill assessment. Studies in Health Technology and Informatics, 2002, 85, 412-8.	0.3	26
71	Hysteresis model of longitudinally loaded cable for cable driven robots and identification of the parameters. , 2016, , .		25
72	Dynamic modeling of cable driven elongated surgical instruments for sensorless grip force estimation. , 2016, 2016, 4128-4134.		25

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73	Global transparency analysis of the Lawrence teleoperator architecture. , 2009, , .		24
74	Experimental comparison of internet haptic collaboration with time-delay compensation techniques. , 2008, , .		23
75	Computer Modeled Multiportal Approaches to the Skull Base. Journal of Neurological Surgery, Part B: Skull Base, 2012, 73, 415-423.	0.8	23
76	Modeling Cable-Driven Robot With Hysteresis and Cableâ€Pulley Network Friction. IEEE/ASME Transactions on Mechatronics, 2020, 25, 1095-1104.	5.8	22
77	Raven: Developing a Surgical Robot from a Concept to a Transatlantic Teleoperation Experiment. , 2011, , 159-197.		22
78	Neurological control of head movements: Inverse modeling and electromyographic evidence. Mathematical Biosciences, 1986, 78, 159-178.	1.9	21
79	Human Interaction with Small Haptic Effects. Presence: Teleoperators and Virtual Environments, 2005, 14, 329-344.	0.6	21
80	Unscented Kalman Filter and 3D vision to improve cable driven surgical robot joint angle estimation. , 2016, , .		21
81	Roboscope: A flexible and bendable surgical robot for single portal Minimally Invasive Surgery. , 2017, , .		21
82	Improving position precision of a servo-controlled elastic cable driven surgical robot using Unscented Kalman Filter. , 2015, , .		20
83	Semiâ€autonomous imageâ€guided brain tumour resection using an integrated robotic system: A benchâ€top study. International Journal of Medical Robotics and Computer Assisted Surgery, 2018, 14, e1872.	2.3	19
84	Quantifying surgeon grasping mechanics in laparoscopy using the Blue DRAGON system. Studies in Health Technology and Informatics, 2004, 98, 34-6.	0.3	19
85	Dual stable point model of muscle activation and deactivation. Biological Cybernetics, 1992, 66, 511-523.	1.3	18
86	Scaling of Direct Drive Robot Arms. International Journal of Robotics Research, 1996, 15, 459-472.	8.5	18
87	Bio-Inspired Actuation and Sensing. Autonomous Robots, 2001, 11, 267-272.	4.8	18
88	Effect of time delay on telesurgical performance. , 2009, , .		18
89	Portable Surgery Master Station for Mobile Robotic Telesurgery. , 2007, , .		18
90	Commentary. Neurosurgery, 2013, 72, A1-A6.	1.1	17

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91	TeleRobotic Fundamentals of Laparoscopic Surgery (FLS): Effects of time delay - pilot study. , 2008, 2008, 5597-600.		16
92	Control and Tension Estimation of a Cable Driven Mechanism Under Different Tensions. , 2013, , .		16
93	LC-GAN: Image-to-image Translation Based on Generative Adversarial Network for Endoscopic Images. , 2020, , .		16
94	The red DRAGON: a multi-modality system for simulation and training in minimally invasive surgery. Studies in Health Technology and Informatics, 2007, 125, 149-54.	0.3	16
95	A Biorobotic Structural Model of the Mammalian Muscle Spindle Primary Afferent Response. Annals of Biomedical Engineering, 2002, 30, 84-96.	2.5	15
96	Bilateral teleoperation with time delay using modified wave variable based controller. , 2009, , .		15
97	Forbidden region virtual fixtures from streaming point clouds. Advanced Robotics, 2014, 28, 1507-1518.	1.8	15
98	Teleoperation of a Surgical Robot Via Airborne Wireless Radio and Transatlantic Internet Links. Springer Tracts in Advanced Robotics, 2008, , 305-314.	0.4	15
99	Development of a flexible imaging probe integrated to a surgical telerobot system: Preliminary remote control test and probe design. , 2012, , .		14
100	Evaluation of liver tissue damage and grasp stability using finite element analysis. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 31-40.	1.6	14
101	The Future of Skull Base Surgery: A View Through Tinted Glasses. World Neurosurgery, 2020, 142, 29-42.	1.3	14
102	Automated Tool Handling for the Trauma Pod Surgical Robot. , 2007, , .		13
103	Establishing multimodal telepresence sessions using the Session Initiation Protocol (SIP) and advanced haptic codecs. , 2010, , .		13
104	Accurate three-dimensional virtual reconstruction of surgical field using calibrated trajectories of an image-guided medical robot. Journal of Medical Imaging, 2014, 1, 035002.	1.5	13
105	Finite Element Analysis for evaluating liver tissue damage due to mechanical compression. Journal of Biomechanics, 2015, 48, 948-955.	2.1	13
106	Model-based passivity control for bilateral teleoperation of a surgical robot with time delay. , 2008, , .		12
107	The Effect of Interaction Force Estimation on Performance in Bilateral Teleoperation. IEEE Transactions on Haptics, 2012, 5, 160-171.	2.7	12
108	Path planning for semi-automated simulated robotic neurosurgery. , 2015, 2015, 2639-2645.		12

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109	Comparison of Micro-Computed Tomography and Clinical Computed Tomography Protocols for Visualization of Nasal Cartilage Before Surgical Planning for Rhinoplasty. <i>JAMA Facial Plastic Surgery</i> , 2019, 21, 237-243.	2.1	12
110	Real-time Data Driven Precision Estimator for RAVEN-II Surgical Robot End Effector Position. , 2020, , .		12
111	Bilateral teleoperation with time delay using modified wave variables. , 2008, , .		11
112	Comparison of 3D Surgical Tool Segmentation Procedures with Robot Kinematics Prior. , 2018, , .		11
113	A Novel Recurrent Neural Network for Improving Redundant Manipulator Motion Planning Completeness. , 2018, 2018, 2956-2961.		11
114	Multicamera 3D Reconstruction of Dynamic Surgical Cavities: Camera Grouping and Pair Sequencing. , 2019, , .		11
115	Local Style Preservation in Improved GAN-Driven Synthetic Image Generation for Endoscopic Tool Segmentation. <i>Sensors</i> , 2021, 21, 5163.	3.8	11
116	Application of Unscented Kalman Filter to a cable driven surgical robot: A simulation study. , 2012, , .		10
117	Multi-Frame Feature Aggregation for Real-Time Instrument Segmentation in Endoscopic Video. <i>IEEE Robotics and Automation Letters</i> , 2021, 6, 6773-6780.	5.1	10
118	Objective assessment of telesurgical robot systems: Telerobotic FLS. <i>Studies in Health Technology and Informatics</i> , 2008, 132, 263-5.	0.3	10
119	Efficient orbital structures segmentation with prior anatomical knowledge. <i>Journal of Medical Imaging</i> , 2017, 4, 034501.	1.5	9
120	Kinesthetic Displays for Remote and Virtual Environments. , 1995, , .		9
121	Comparison of transient performance in the control of soft tissue grasping. , 2007, , .		8
122	Preliminary Articulated Probe Designs With RAVEN and Challenges: Image-Guided Robotic Surgery Multitool System. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2014, 8, .	0.7	8
123	Region-Specific Objective Signatures of Endoscopic Surgical Instrument Motion: A Cadaveric Exploratory Analysis. <i>Journal of Neurological Surgery, Part B: Skull Base</i> , 2017, 78, 099-104.	0.8	8
124	Augmented Reality Application for Aiding Tumor Resection in Skull-Base Surgery. , 2019, , .		8
125	Multicamera 3D Viewpoint Adjustment for Robotic Surgery via Deep Reinforcement Learning. <i>Journal of Medical Robotics Research</i> , 2021, 06, 2140003.	1.2	8
126	Control of a Flexible Manipulator with Noncollocated Feedback: Time Domain Passivity Approach. , 2003, , 121-134.		8

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127	Kinesthetic Feedback Techniques in Teleoperated Systems. Control and Dynamic Systems, 1991, , 1-32.	0.1	8
128	Multicamera 3D Reconstruction of Dynamic Surgical Cavities: Autonomous Optimal Camera Viewpoint Adjustment. , 2020, , .		8
129	Comparison of Performance of Virtual Coupling Schemes for Haptic Collaboration using Real and Emulated Internet Connections. , 2007, , .		8
130	Collaborative Robotics Toolkit (CRTK): Open Software Framework for Surgical Robotics Research. , 2020, , .		8
131	Adaptive Linear Predictor Tracks Implanted Radiopaque Markers. IEEE Transactions on Biomedical Engineering, 1985, BME-32, 117-125.	4.2	7
132	<title>Augmented haptics of manipulator kinematic condition</title>. , 1999, 3840, 54.		7
133	An Automated Methodology for Assessing Anatomy-Specific Instrument Motion during Endoscopic Endonasal Skull Base Surgery. Journal of Neurological Surgery, Part B: Skull Base, 2017, 38, 222-226.	0.8	7
134	Improving control precision and motion adaptiveness for surgical robot with recurrent neural network. , 2017, , .		7
135	Learned Hand Gesture Classification Through Synthetically Generated Training Samples. , 2018, , .		7
136	Automated Surgical Approach Planning for Complex Skull Base Targets: Development and Validation of a Cost Function and Semantic At-las. Surgical Innovation, 2018, 25, 476-484.	0.9	7
137	Object-Agnostic Vision Measurement Framework Based on One-Shot Learning and Behavior Tree. IEEE Transactions on Cybernetics, 2023, 53, 5202-5215.	9.5	7
138	Tactile data entry for extravehicular activity. , 2011, , .		6
139	Towards real-time surface tracking and motion compensation integration for robotic surgery. , 2017, , .		6
140	Freeing the Serial Mechanism Designer from Inverse Kinematic Solvability Constraints. Applied Bionics and Biomechanics, 2010, 7, 209-216.	1.1	5
141	Dynamically evaluated gravity compensation for the RAVEN surgical robot. , 2014, , .		5
142	Mapping surgical fields by moving a laser-scanning multimodal scope attached to a robot arm. , 2014, 9036, .		5
143	Integrated asymmetric stop operator based model for strain stress hysteresis characteristics of cable driven robots loaded longitudinally. , 2017, , .		5
144	Multicamera 3D Reconstruction of Dynamic Surgical Cavities: Non-Rigid Registration and Point Classification. , 2019, , .		5

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145	A Device for Zero-Eye-Movement Reading. IEEE Transactions on Biomedical Engineering, 1985, BME-32, 86-89.	4.2	4
146	Hidden Markov Model analysis of force/torque information in telemanipulation. , 1990, , 135-149.		4
147	A study and model of the role of the Renshaw cell in regulating the transient firing rate of the motoneuron. Biological Cybernetics, 1994, 71, 251-262.	1.3	4
148	A "hands-on" course in consumer electronics design. Mechatronics, 1995, 5, 753-762.	3.3	4
149	Identification of feasible scaled teleoperation region based on scaling factors and sampling rates. Journal of Mechanical Science and Technology, 2001, 15, 1-9.	0.4	4
150	<title>Detection thresholds for small haptic effects</title>. , 2002, 4570, 50.		4
151	Experimental Evaluation of Attachment Methods for a Multifinger Haptic Device. , 2007, , .		4
152	Improving tactile feedback with an impedance adapter. , 2013, , .		4
153	Toward real-time endoscopically-guided robotic navigation based on a 3D virtual surgical field model. , 2015, 9415, 94150C.		4
154	Anatomical Region Segmentation for Objective Surgical Skill Assessment with Operating Room Motion Data. Journal of Neurological Surgery, Part B: Skull Base, 2017, 78, 490-496.	0.8	4
155	The Mechanical Spindle: A Replica of the Mammalian Muscle Spindle. , 1995, , 331-333.		4
156	<title>Hard-disk actuators for mini-teleoperation</title>. , 1995, 2351, 55.		3
157	Overcoming barriers to wider adoption of mobile telerobotic surgery. , 2008, , .		3
158	Freeing the serial mechanism designer from inverse kinematic solvability constraints. Applied Bionics and Biomechanics, 2010, 7, 209-216.	1.1	3
159	Haptic exploration of spheres: Techniques and initial experiments. , 2010, , .		3
160	Robotic compression of soft tissue. , 2012, , .		3
161	Good vibrations. , 2013, , .		3
162	Design and optimization of support structures for tactile feedback. , 2013, , .		3

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163	Quantitative Analysis of Transnasal Anterior Skull Base Approach: Report of Technology for Intraoperative Assessment of Instrument Motion. <i>Surgical Innovation</i> , 2017, 24, 405-410.	0.9	3
164	Debate on the cost of innovation in healthcare: is it too costly?. <i>BMJ Simulation and Technology Enhanced Learning</i> , 2017, 3, S33-S36.	0.7	3
165	Soft-obstacle Avoidance for Redundant Manipulators with Recurrent Neural Network. , 2018, , .		3
166	RAVEN Eyes Around the Instrument from Modular Axis Sharing. <i>International Journal of Control, Automation and Systems</i> , 2019, 17, 454-464.	2.7	3
167	Toward real-time tumor margin identification in image-guided robotic brain tumor resection. <i>Proceedings of SPIE</i> , 2017, 10135, .	0.8	3
168	Opportunities and Barriers to Rural Telerobotic Surgical Health Care in 2021: Report and Research Agenda from a Stakeholder Workshop. <i>Telemedicine Journal and E-Health</i> , 2021, , .	2.8	3
169	Effects of thermal protection methods on haptic perception. , 2011, , .		2
170	Glove-Enabled Computer Operations (GECO): Design and Testing of an Extra-Vehicular Activity Glove Adapted for Human-Computer Interface. , 2013, , .		2
171	Comparison of reaction times while walking. , 2015, , .		2
172	Automated atlas-based segmentation for skull base surgical planning. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2021, 16, 933-941.	2.8	2
173	Securing Robot-assisted Minimally Invasive Surgery through Perception Complementarities. , 2020, , .		2
174	Time optimality, proprioception, and the triphasic EMG pattern. <i>Behavioral and Brain Sciences</i> , 1989, 12, 231-232.	0.7	1
175	<title>Microscopic pick-and-place teleoperation</title>. , 1993, , .		1
176	Haptic Characteristics of Document Conservation Tasks. , 2008, , .		1
177	Atlas and feature based 3D pathway visualization enhancement for skull base pre-operative fast planning from head CT. , 2015, 9415, .		1
178	Objective Assessment of Surgical Skills. , 2011, , 619-649.		1
179	Instrument Failures for the da Vinci Surgical System: a Food and Drug Administration MAUDE Database Study. , 2013, 27, 1503.		1
180	Macro and Micro Soft-Tissue Biomechanics and Tissue Damage: Application in Surgical Robotics. , 2011, , 583-618.		1

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181	Atlas Based Anatomical Region Segmentation for Minimally Invasive Skull Base Surgery Objective Motion Analysis. Journal of Neurological Surgery, Part B: Skull Base, 2017, 78, S1-S156.	0.8	1
182	Testing Time Domain Passivity Control of Haptic Enabled Systems. , 0, , 550-559.		1
183	Sensor Fusion for Force and Position Calibration of a Motorized Surgical Smart Grasper. , 2021, , .		1
184	Real-time virtual intraoperative CT in endoscopic sinus surgery. International Journal of Computer Assisted Radiology and Surgery, 2022, 17, 249-260.	2.8	1
185	Real-Time Camera Localization during Robot-Assisted Telecystoscopy for Bladder Cancer Surveillance. Journal of Medical Robotics Research, 2022, 07, .	1.2	1
186	The anthroform neural controller: An architecture for spinal circuit emulation. , 1992, , .		0
187	Fast Rendering for a Multifinger Haptic Display. , 2007, , .		0
188	Haptic exploration of spheres: Anatomical regions used for perception. , 2011, , .		0
189	Fourier transform infrared spectroscopic imaging identifies early biochemical markers of tissue damage. , 2014, , .		0
190	Experimental evaluation of guidance and forbidden region virtual fixtures for object telemanipulation. , 2014, , .		0
191	MP37-05 THE DA VINCI ROBOT TRAINING DILEMMA: EVALUATING THE RAVEN ROBOT AS A SOLUTION. Journal of Urology, 2014, 191, .	0.4	0
192	Wrist Motion Variation between Novices and Experienced Surgeons Performing Simulated Airway Surgery. OTO Open, 2017, 1, 2473974X1773895.	1.4	0
193	Learning Surgical Motion Pattern from Small Data in Endoscopic Sinus and Skull Base Surgeries. , 2021, , .		0
194	Multi-finger Haptic Displays for Characterization of Hand Response. Springer Tracts in Advanced Robotics, 2014, , 363-388.	0.4	0
195	Motor Control Simulation Of Time Optimal Fast Movement in Man. , 1993, , 411-418.		0
196	Objective Signatures of Endoscopic Surgical Performance. Journal of Neurological Surgery, Part B: Skull Base, 2016, 77, .	0.8	0
197	Improved Technology for Navigation-Guided Orbital Surgery and Reconstruction. Journal of Neurological Surgery, Part B: Skull Base, 2017, 78, S1-S156.	0.8	0
198	A study and model of the role of the Renshaw cell in regulating the transient firing rate of the motoneuron. Biological Cybernetics, 1994, 71, 251-262.	1.3	0