Sarthak Misra

List of Publications by Year in descending order

198 papers	5,926 citations	94433 37 h-index	110387 64 g-index
207 all docs	207 docs citations	207 times ranked	4118 citing authors

#	Article	IF	Citations
1	Design and Evaluation of a Magnetic Rotablation Catheter for Arterial Stenosis. IEEE/ASME Transactions on Mechatronics, 2022, 27, 1761-1772.	5.8	9
2	A Flexible Catheter System for Ultrasound-Guided Magnetic Projectile Delivery. IEEE Transactions on Robotics, 2022, 38, 1959-1972.	10.3	8
3	SonoTweezer: An Acoustically Powered End-Effector for Underwater Micromanipulation. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2022, 69, 988-997.	3.0	5
4	2D Magnetic Actuation and Localization of a Surface Milli-Roller in Low Reynolds Numbers. IEEE Robotics and Automation Letters, 2022, 7, 3874-3881.	5.1	3
5	A Snake-Inspired Multi-Segmented Magnetic Soft Robot Towards Medical Applications. IEEE Robotics and Automation Letters, 2022, 7, 5795-5802.	5.1	21
6	CeFlowBot: A Biomimetic Flowâ€Đriven Microrobot that Navigates under Magnetoâ€Acoustic Fields. Small, 2022, 18, e2105829.	10.0	22
7	A Magnetically-Actuated Flexible Capsule Robot for Untethered Cardiovascular Interventions. , 2022, , .		2
8	Curvature, twist and pose measurements using fiber Bragg gratings in multi-core fiber: A comparative study between helical and straight core fibers. Sensors and Actuators A: Physical, 2021, 317, 112442.	4.1	25
9	Magnetic Actuation Methods in Bio/Soft Robotics. Advanced Functional Materials, 2021, 31, 2005137.	14.9	126
10	Principles of propulsion by flagella and cilia. , 2021, , 81-103.		0
11	RobUStâ€“An Autonomous Robotic Ultrasound System for Medical Imaging. IEEE Access, 2021, 9, 67456-67465.	4.2	19
12	Closed-loop control of soft microrobots. , 2021, , 179-195.		0
13	Fluid mechanics and resistive-force theory. , 2021, , 61-77.		0
14	Principles of propulsion by magnetically actuated soft bodies. , 2021, , 125-136.		0
15	Open-loop control of soft microrobots. , 2021, , 163-177.		1
16	Localization of soft microrobots. , 2021, , 151-161.		1
17	Impact of Segmented Magnetization on the Flagellar Propulsion of Spermâ€Templated Microrobots. Advanced Science, 2021, 8, 2004037.	11.2	29
18	A Recurrent Neural-Network-Based Real-Time Dynamic Model for Soft Continuum Manipulators. Frontiers in Robotics and AI, 2021, 8, 631303.	3.2	17

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19	Multi-Point Orientation Control of Discretely-Magnetized Continuum Manipulators. IEEE Robotics and Automation Letters, 2021, 6, 3607-3614.	5.1	19
20	Serial imaging of micro-agents and cancer cell spheroids in a microfluidic channel using multicolor fluorescence microscopy. PLoS ONE, 2021, 16, e0253222.	2.5	7
21	Haptic Teleoperation of Flexible Needles Combining 3D Ultrasound Guidance and Needle Tip Force Feedback. IEEE Robotics and Automation Letters, 2021, 6, 4859-4866.	5.1	20
22	A Magnetically-Steerable Stenting Catheter for Minimally Invasive Cardiovascular Interventions. , 2021, , .		3
23	Acoustically-actuated bubble-powered rotational micro-propellers. Sensors and Actuators B: Chemical, 2021, 347, 130589.	7.8	25
24	Real-Time Multi-Modal Sensing and Feedback for Catheterization in Porcine Tissue. Sensors, 2021, 21, 273.	3.8	9
25	Open-Loop Magnetic Actuation of Helical Robots using Position-Constrained Rotating Dipole Field. , 2021, , .		1
26	The ARMM System - Autonomous Steering of Magnetically-Actuated Catheters: Towards Endovascular Applications. IEEE Robotics and Automation Letters, 2020, 5, 705-712.	5.1	47
27	Tandem actuation of legged locomotion and grasping manipulation in soft robots using magnetic fields. Extreme Mechanics Letters, 2020, 41, 101023.	4.1	31
28	Dynamic modeling of soft continuum manipulators using lie group variational integration. PLoS ONE, 2020, 15, e0236121.	2.5	8
29	Bidirectional Propulsion of Arcâ€Shaped Microswimmers Driven by Precessing Magnetic Fields. Advanced Intelligent Systems, 2020, 2, 2000064.	6.1	10
30	Controlled Noncontact Manipulation of Nonmagnetic Untethered Microbeads Orbiting Two-Tailed Soft Microrobot. IEEE Transactions on Robotics, 2020, 36, 1320-1332.	10.3	15
31	MILiMAC: Flexible Catheter With Miniaturized Electromagnets as a Small-Footprint System for Microrobotic Tasks. IEEE Robotics and Automation Letters, 2020, 5, 5260-5267.	5.1	12
32	Collaborative Surgical Robots: Optical Tracking During Endovascular Operations. IEEE Robotics and Automation Magazine, 2020, 27, 29-44.	2.0	15
33	IRONSperm: Sperm-templated soft magnetic microrobots. Science Advances, 2020, 6, eaba5855.	10.3	137
34	PneuAct-II: Hybrid Manufactured Electromagnetically Stealth Pneumatic Stepper Actuator. IEEE Robotics and Automation Letters, 2020, 5, 3588-3593.	5.1	5
35	Resemblance between motile and magnetically actuated sperm cells. Applied Physics Letters, 2020, 116, .	3.3	20
36	Contactless acoustic micro/nano manipulation: a paradigm for next generation applications in life sciences. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200621.	2.1	51

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37	Dual-Arm Control for Enhanced Magnetic Manipulation. , 2020, , .		11
38	Pose Measurement of Flexible Medical Instruments Using Fiber Bragg Gratings in Multi-Core Fiber. IEEE Sensors Journal, 2020, 20, 10955-10962.	4.7	44
39	A Monolithic Compliant Continuum Manipulator: A Proof-of-Concept Study. Journal of Mechanisms and Robotics, 2020, 12, .	2.2	13
40	Towards Gradient-Based Actuation of Magnetic Soft Robots Using a Six-Coil Electromagnetic System. , 2020, , .		2
41	A Contactless and Biocompatible Approach for 3D Active Microrobotic Targeted Drug Delivery. Micromachines, 2019, 10, 504.	2.9	17
42	Development of a Coil Driver for Magnetic Manipulation Systems. IEEE Magnetics Letters, 2019, 10, 1-5.	1.1	3
43	Characterization of Flagellar Propulsion of Soft Microrobotic Sperm in a Viscous Heterogeneous Medium. Frontiers in Robotics and AI, 2019, 6, 65.	3.2	7
44	The ARMM System: An Optimized Mobile Electromagnetic Coil for Non-Linear Actuation of Flexible Surgical Instruments. IEEE Transactions on Magnetics, 2019, 55, 1-9.	2.1	46
45	Force characterization and analysis of thin film actuators for untethered microdevices. AIP Advances, 2019, 9, .	1.3	5
46	Modeling of Spermbots in a Viscous Colloidal Suspension. Advanced Theory and Simulations, 2019, 2, 1900072.	2.8	8
47	Characterization of Helical Propulsion Inside In Vitro and Ex Vivo Models of a Rabbit Aorta. , 2019, 2019, 5283-8286.		3
48	Vision-Based 3-D Control of Magnetically Actuated Catheter Using BigMagâ€"An Array of Mobile Electromagnetic Coils. IEEE/ASME Transactions on Mechatronics, 2019, 24, 505-516.	5.8	65
49	Magnetic localization and control of helical robots for clearing superficial blood clots. APL Bioengineering, 2019, 3, 026104.	6.2	49
50	Shape and contact force estimation of continuum manipulators using pseudo rigid body models. Mechanism and Machine Theory, 2019, 139, 34-45.	4.5	58
51	Magnetic Localization for an Electromagnetic-Based Haptic Interface. IEEE Magnetics Letters, 2019, 10, 1-5.	1.1	13
52	Multi-Core Optical Fibers With Bragg Gratings as Shape Sensor for Flexible Medical Instruments. IEEE Sensors Journal, 2019, 19, 5878-5884.	4.7	136
53	Bi-directional transportation of micro-agents induced by symmetry-broken acoustic streaming. AIP Advances, 2019, 9, .	1.3	16
54	Bio-Inspired Terrestrial Motion of Magnetic Soft Millirobots. IEEE Robotics and Automation Letters, 2019, 4, 1753-1759.	5.1	71

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55	Guest Editorial A Perspective of BioRobotics From the IEEE RAS/EMBS BioRob 2018 Conference. IEEE Transactions on Medical Robotics and Bionics, 2019, 1, 4-5.	3.2	0
56	Reconstructing Endovascular Catheter Interaction Forces in 3D using Multicore Optical Shape Sensors. , 2019, , .		9
57	Precise Model-Free Spline-Based Approach for Magnetic Field Mapping. IEEE Magnetics Letters, 2019, 10, 1-5.	1.1	7
58	Design of an Electromagnetic Setup for Independent Three-Dimensional Control of Pairs of Identical and Nonidentical Microrobots. IEEE Transactions on Robotics, 2019, 35, 174-183.	10.3	75
59	Tele-Operated MRI-Guided Needle Insertion for Prostate Interventions. Journal of Medical Robotics Research, 2019, 04, 1842003.	1.2	6
60	Flexible Needle Steering in Moving Biological Tissue With Motion Compensation Using Ultrasound and Force Feedback. IEEE Robotics and Automation Letters, 2018, 3, 2338-2345.	5.1	23
61	Flexible Instruments for Endovascular Interventions: Improved Magnetic Steering, Actuation, and Image-Guided Surgical Instruments. IEEE Robotics and Automation Magazine, 2018, 25, 71-82.	2.0	72
62	Steering and Control of Miniaturized Untethered Soft Magnetic Grippers With Haptic Assistance. IEEE Transactions on Automation Science and Engineering, 2018, 15, 290-306.	5.2	57
63	A GPU-accelerated model-based tracker for untethered submillimeter grippers. Robotics and Autonomous Systems, 2018, 103, 111-121.	5.1	6
64	Independent and Leaderâ€“Follower Control for Two Magnetic Micro-Agents. IEEE Robotics and Automation Letters, 2018, 3, 218-225.	5.1	30
65	A Multi-Rate State Observer for Visual Tracking of Magnetic Micro-Agents Using 2D Slow Medical Imaging Modalities. , 2018, , .		10
66	Hybrid control algorithm for flexible needle steering: Demonstration in phantom and human cadaver. PLoS ONE, 2018, 13, e0210052.	2.5	5
67	Introducing PneuAct: Parametrically-Designed MRI-Compatible Pneumatic Stepper Actuator. , 2018, , .		11
68	Near Surface Effects on the Flagellar Propulsion of Soft Robotic Sperms. , 2018, , .		2
69	An Observer-Based Fusion Method Using Multicore Optical Shape Sensors and Ultrasound Images for Magnetically-Actuated Catheters. , 2018, , .		24
70	BIOLOGICALLY INSPIRED MICROROBOTICS. , 2018, , 65-85.		0
71	Model predictive control of a robotically actuated delivery sheath for beating heart compensation. International Journal of Robotics Research, 2017, 36, 193-209.	8.5	21
72	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

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73	Computed tomography (CT)-compatible remote center of motion needle steering robot: Fusing CT images and electromagnetic sensor data. Medical Engineering and Physics, 2017, 45, 71-77.	1.7	22
74	Autonomous planning and control of soft untethered grippers in unstructured environments. Journal of Micro-Bio Robotics, 2017, 12, 45-52.	2.1	61
75	Control of magnetotactic bacteria. , 2017, , 61-79.		3
76	Towards MRI-guided flexible needle steering using fiber Bragg grating-based tip tracking. , 2017, , .		16
77	Magnetic motion control and planning of untethered soft grippers using ultrasound image feedback. , 2017, 2017, 6156-6161.		24
78	Segmentation and threeâ€dimensional reconstruction of lesions using the automated breast volume scanner (ABVS). International Journal of Medical Robotics and Computer Assisted Surgery, 2017, 13, e1767.	2.3	8
79	Force sensing in continuum manipulators using fiber Bragg grating sensors. , 2017, , .		37
80	Introducing BigMag â€" A novel system for 3D magnetic actuation of flexible surgical manipulators. , 2017, , .		46
81	The MIRIAM Robot: A Novel Robotic System for MR-Guided Needle Insertion in the Prostate. Journal of Medical Robotics Research, 2017, 02, 1750006.	1.2	39
82	Stimuli-Responsive Soft Untethered Grippers for Drug Delivery and Robotic Surgery. Frontiers in Mechanical Engineering, 2017, 3, .	1.8	97
83	Design, characterization and control of thermally-responsive and magnetically-actuated micro-grippers at the air-water interface. PLoS ONE, 2017, 12, e0187441.	2.5	20
84	Modeling of Unidirectional-Overloaded Transition in Catalytic Tubular Microjets. Journal of Physical Chemistry C, 2017, 121, 14854-14863.	3.1	9
85	Haptic Feedback for Microrobotics Applications: A Review. Frontiers in Robotics and AI, 2016, 3, .	3.2	31
86	Experimental evaluation of co-manipulated ultrasound-guided flexible needle steering. International Journal of Medical Robotics and Computer Assisted Surgery, 2016, 12, 219-230.	2.3	25
87	Steering an actuated-tip needle in biological tissue: Fusing FBG-sensor data and ultrasound images. , 2016, , .		14
88	Three-Dimensional Needle Steering Using Automated Breast Volume Scanner (ABVS). Journal of Medical Robotics Research, 2016, 01, 1640005.	1.2	4
89	Robust and Optimal Control of Magnetic Microparticles inside Fluidic Channels with Time-Varying Flow Rates. International Journal of Advanced Robotic Systems, 2016, 13, 123.	2.1	17
90	Closed-loop control of a magnetically-actuated catheter using two-dimensional ultrasound images. , 2016, , .		20

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91	Control of untethered soft grippers for pick-and-place tasks. , 2016, 2016, 299-304.		18
92	Feeling paramagnetic micro-particles trapped inside gas bubbles: A tele-manipulation study. , 2016, , .		2
93	An experimental comparison of path planning techniques applied to micro-sized magnetic agents. , 2016, , .		6
94	Evaluation of an electromagnetic system with haptic feedback for control of untethered, soft grippers affected by disturbances. , 2016, , .		11
95	Disturbance observer-based motion control of paramagnetic microparticles against time-varying flow rates. , 2016, , .		2
96	Ultrasound-guided stabilization of a robotically-actuated delivery sheath (RADS) for beating heart mitral valve motions. , 2016, , .		1
97	Steering of Multisegment Continuum Manipulators Using Rigid-Link Modeling and FBG-Based Shape Sensing. IEEE Transactions on Robotics, 2016, 32, 372-382.	10.3	103
98	Intuitive control of self-propelled microjets with haptic feedback. Journal of Micro-Bio Robotics, 2015, 10, 37-53.	2.1	16
99	Towards physiological motion compensation for flexible needle interventions. , 2015, , .		2
100	Non-Contact manipulation of microbeads via pushing and pulling using magnetically controlled clusters of paramagnetic microparticles. , 2015, , .		14
101	Propulsion and steering of helical magnetic microrobots using two synchronized rotating dipole fields in three-dimensional space. , 2015, , .		19
102	Modeling and steering of a novel actuated-tip needle through a soft-tissue simulant using Fiber Bragg Grating sensors. , 2015, , .		30
103	Closed-loop asymmetric-tip needle steering under continuous intraoperative MRI guidance. , 2015, 2015, 4869-74.		24
104	Biomechanics-Based Curvature Estimation for Ultrasound-guided Flexible Needle Steering in Biological Tissues. Annals of Biomedical Engineering, 2015, 43, 1716-1726.	2.5	40
105	Precise Localization and Control of Catalytic Janus Micromotors Using Weak Magnetic Fields. International Journal of Advanced Robotic Systems, 2015, 12, 2.	2.1	26
106	Design and evaluation of a computed tomography (CT)-compatible needle insertion device using an electromagnetic tracking system and CT images. International Journal of Computer Assisted Radiology and Surgery, 2015, 10, 1845-1852.	2.8	21
107	FINITE-ELEMENT MODELING OF A BEVEL-TIPPED NEEDLE INTERACTING WITH GEL. Journal of Mechanics in Medicine and Biology, 2015, 15, 1550079.	0.7	12
108	Paramagnetic microparticles sliding on a surface: Characterization and closed-loop motion control. , 2015, , .		8

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109	Ultrasound-guided three-dimensional needle steering in biological tissue with curved surfaces. Medical Engineering and Physics, 2015, 37, 145-150.	1.7	40
110	Magnetic-based motion control of sperm-shaped microrobots using weak oscillating magnetic fields. , 2014, , .		17
111	Magnetic-Based Motion Control of Paramagnetic Microparticles With Disturbance Compensation. IEEE Transactions on Magnetics, 2014, 50, 1-10.	2.1	37
112	Motion planning for paramagnetic microparticles under motion and sensing uncertainty. , 2014, , .		4
113	Needle steering in biological tissue using ultrasound-based online curvature estimation. , 2014, 2014, 4368-4373.		17
114	Needle path planning and steering in a three-dimensional non-static environment using two-dimensional ultrasound images. International Journal of Robotics Research, 2014, 33, 1361-1374.	8.5	107
115	Teleoperation of Steerable Flexible Needles by Combining Kinesthetic and Vibratory Feedback. IEEE Transactions on Haptics, 2014, 7, 551-556.	2.7	45
116	Magnetic-based closed-loop control of paramagnetic microparticles using ultrasound feedback. , 2014, , .		41
117	Experimental evaluation of ultrasound-guided 3D needle steering in biological tissue. International Journal of Computer Assisted Radiology and Surgery, 2014, 9, 931-939.	2.8	58
118	Control Characteristics of Magnetotactic Bacteria: <italic>Magnetospirillum Magnetotacticum</italic> Strain MS-1 and <italic>Magnetospirillum Magneticum</italic> Strain AMB-1. IEEE Transactions on Magnetics, 2014, 50, 1-11.	2.1	7
119	A preliminary evaluation of a flexible needle steering algorithm using magnetic resonance images as feedback. , 2014, , .		3
120	The Control of Self-Propelled Microjets Inside a Microchannel With Time-Varying Flow Rates. IEEE Transactions on Robotics, 2014, 30, 49-58.	10.3	61
121	Magnetic-based motion control of a helical robot using two synchronized rotating dipole fields. , 2014, , .		14
122	Magnetic control of self-propelled microjets under ultrasound image guidance. , 2014, , .		35
123	Three-Dimensional Needle Shape Reconstruction Using an Array of Fiber Bragg Grating Sensors. IEEE/ASME Transactions on Mechatronics, 2014, 19, 1115-1126.	5.8	205
124	Three-dimensional needle steering towards a localized target in a prostate phantom. , 2014, , .		3
125	On the importance of modelling organ geometry and boundary conditions for predicting three-dimensional prostate deformation. Computer Methods in Biomechanics and Biomedical Engineering, 2014, 17, 497-506.	1.6	10
126	MagnetoSperm: A microrobot that navigates using weak magnetic fields. Applied Physics Letters, 2014, 104, .	3.3	145

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127	Biocompatible, accurate, and fully autonomous: a sperm-driven micro-bio-robot. Journal of Micro-Bio Robotics, 2014, 9, 79-86.	2.1	34
128	UT hand I: A lock-based underactuated hand prosthesis. Mechanism and Machine Theory, 2014, 78, 307-323.	4.5	18
129	Steering of flexible needles combining kinesthetic and vibratory force feedback. , 2014, , .		6
130	Wireless Magnetic-Based Closed-Loop Control of Self-Propelled Microjets. PLoS ONE, 2014, 9, e83053.	2.5	27
131	10.1063/1.4880035.1. , 2014, , .		0
132	3D position estimation of flexible instruments: marker-less and marker-based methods. International Journal of Computer Assisted Radiology and Surgery, 2013, 8, 407-417.	2.8	24
133	Three-dimensional closed-loop control of self-propelled microjets. Applied Physics Letters, 2013, 103, .	3.3	52
134	Closed-loop control of magnetotactic bacteria. International Journal of Robotics Research, 2013, 32, 637-649.	8.5	62
135	Magnetic control of potential microrobotic drug delivery systems: Nanoparticles, magnetotactic bacteria and self-propelled microjets. , 2013, 2013, 5299-302.		18
136	Real-time three-dimensional flexible needle tracking using two-dimensional ultrasound. , 2013, , .		49
137	Combining ultrasound-based elasticity estimation and FE models to predict 3D target displacement. Medical Engineering and Physics, 2013, 35, 549-554.	1.7	6
138	Image-based hysteresis reduction for the control of flexible endoscopic instruments. Mechatronics, 2013, 23, 652-658.	3.3	23
139	A framework for predicting three-dimensional prostate deformation in real time. International Journal of Medical Robotics and Computer Assisted Surgery, 2013, 9, e52-e60.	2.3	25
140	Integrating Deflection Models and Image Feedback for Real-Time Flexible Needle Steering. IEEE Transactions on Robotics, 2013, 29, 542-553.	10.3	100
141	Magnetic-based minimum input motion control of paramagnetic microparticles in three-dimensional space. , 2013, , .		9
142	On using an array of fiber Bragg grating sensors for closed-loop control of flexible minimally invasive surgical instruments. , 2013, , .		50
143	Evaluation of robotically controlled advanced endoscopic instruments. International Journal of Medical Robotics and Computer Assisted Surgery, 2013, 9, 240-246.	2.3	9
144	Microassembly using a cluster of paramagnetic microparticles. , 2013, , .		17

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145	3D flexible needle steering in soft-tissue phantoms using Fiber Bragg Grating sensors. , 2013, , .		80
146	Control of magnetotactic bacterium in a micro-fabricated maze. , 2013, , .		17
147	Magnetotactic bacteria and microjets: A comparative study. , 2013, , .		2
148	Development of Underactuated Prosthetic Fingers with Joint Locking and Electromyographic Control. Mechanical Engineering Research, 2013, 3, 130.	0.2	7
149	Modelling Prostate Deformation: SOFA versus Experiments. Mechanical Engineering Research, 2013, 3, .	0.2	6
150	Characterization and Control of Biological Microrobots. Springer Tracts in Advanced Robotics, 2013, , 617-631.	0.4	14
151	Macroscopic and microscopic observations of needle insertion into gels. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2012, 226, 441-449.	1.8	36
152	Observations of three-dimensional needle deflection during insertion into soft tissue. , 2012, , .		12
153	Design of joint locks for underactuated fingers. , 2012, , .		2
154	Interaction force estimation during manipulation of microparticles. , 2012, , .		14
155	Effect of skin thickness on target motion during needle insertion into soft-tissue phantoms. , 2012, , .		8
156	Mechanics-based model for predicting in-plane needle deflection with multiple bends. , 2012, , .		34
157	An energy-based state observer for dynamical subsystems with inaccessible state variables. , 2012, , .		3
158	Wireless magnetic-based control of paramagnetic microparticles. , 2012, , .		26
159	Evaluation of pneumatic cylinder actuators for hand prostheses. , 2012, , .		6
160	Stability of position-based bilateral telemanipulation systems by damping injection. , 2012, , .		5
161	Image-based pose estimation of an endoscopic instrument. , 2012, , .		1
162	Development of prosthesis grasp control systems on a robotic testbed. , 2012, , .		3

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163	Pose reconstruction of flexible instruments from endoscopic images using markers. , 2012, , .		15
164	Evaluation of a robotic technique for transrectal MRI-guided prostate biopsies. European Radiology, 2012, 22, 476-483.	4.5	60
165	Improved transparency in energy-based bilateral telemanipulation. Mechatronics, 2012, 22, 45-54.	3.3	2
166	Bilateral telemanipulation: Improving the complementarity of the frequency- and time-domain passivity approaches. , 2011, , .		8
167	Bilateral Telemanipulation With Time Delays: A Two-Layer Approach Combining Passivity and Transparency. IEEE Transactions on Robotics, 2011, 27, 741-756.	10.3	223
168	Predicting Target Displacements Using Ultrasound Elastography and Finite Element Modeling. IEEE Transactions on Biomedical Engineering, 2011, 58, 3143-3155.	4.2	27
169	Evaluation of flexible endoscope steering using haptic guidance. International Journal of Medical Robotics and Computer Assisted Surgery, 2011, 7, 178-186.	2.3	28
170	Three-dimensional pose reconstruction of flexible instruments from endoscopic images. , 2011, , .		12
171	Target motion predictions for pre-operative planning during needle-based interventions. , 2011, 2011, 5380-5.		8
172	Design of a user interface for intuitive colonoscope control. , 2011, , .		11
173	Image-based magnetic control of paramagnetic microparticles in water. , 2011, , .		24
174	Mechanics of needle-tissue interaction. , 2011, , .		55
175	Myoelectric forearm prostheses: State of the art from a user-centered perspective. Journal of Rehabilitation Research and Development, 2011, 48, 719.	1.6	378
176	Robotic Needle Steering: Design, Modeling, Planning, and Image Guidance. , 2011, , 557-582.		74
177	Three-dimensional pose reconstruction of flexible instruments from endoscopic images. , 2011, , .		1
178	Mechanics of needle-tissue interaction. , 2011, , .		8
179	Identification of mobile entities based on trajectory and shape information. , 2011, , .		0
180	Mechanical design of a tree gripper for miniature tree-climbing robots. , 2011, , .		0

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181	Friction compensation in energy-based bilateral telemanipulation. , 2010, , .		3
182	Multi-dimensional passive sampled Port-Hamiltonian systems. , 2010, , .		0
183	A biomechanical model for the development of myoelectric hand prosthesis control systems. , 2010, 2010, 519-23.		8
184	Endoscopic camera control by head movements for thoracic surgery. , 2010, , .		25
185	Image-based flexible endoscope steering. , 2010, , .		26
186	Modelling of non-linear elastic tissues for surgical simulation. Computer Methods in Biomechanics and Biomedical Engineering, 2010, 13, 811-818.	1.6	52
187	Mechanics of Flexible Needles Robotically Steered through Soft Tissue. International Journal of Robotics Research, 2010, 29, 1640-1660.	8.5	251
188	MRI of the prostate: potential role of robots. Imaging in Medicine, 2010, 2, 583-592.	0.0	14
189	Observations and models for needle-tissue interactions. , 2009, , .		41
190	The importance of organ geometry and boundary constraints for planning of medical interventions. Medical Engineering and Physics, 2009, 31, 195-206.	1.7	62
191	Quantifying perception of nonlinear elastic tissue models using multidimensional scaling. , 2009, , .		4
192	Observations of needle-tissue interactions. , 2009, 2009, 262-5.		12
193	Modeling Realistic Tool-Tissue Interactions with Haptic Feedback: A Learning-based Method. , 2008, , .		18
194	Needle-tissue interaction forces for bevel-tip steerable needles. , 2008, , 224-231.		74
195	Modeling of Tool-Tissue Interactions for Computer-Based Surgical Simulation: A Literature Review. Presence: Teleoperators and Virtual Environments, 2008, 17, 463-491.	0.6	168
196	Physically valid surgical simulators: linear versus nonlinear tissue models. Studies in Health Technology and Informatics, 2008, 132, 293-5.	0.3	3
197	Force Feedback is Noticeably Different for Linear versus Nonlinear Elastic Tissue Models. , 2007, , .		13
198	On the Validation of SPDM Task Verification Facility. Journal of Field Robotics, 2004, 21, 219-235.	0.7	50