Allison M Okamura

List of Publications by Year
in descending order

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273 papers	11,627 citations	46918 47 h-index	48187 88 g-index
284 all docs	284 docs citations	284 times ranked	6596 citing authors

#	Article	IF	Citations
1	Force Modeling for Needle Insertion Into Soft Tissue. IEEE Transactions on Biomedical Engineering, 2004, 51, 1707-1716.	2.5	680
2	A soft robot that navigates its environment through growth. Science Robotics, 2017, 2, .	9.9	603
3	Haptic feedback in robot-assisted minimally invasive surgery. Current Opinion in Urology, 2009, 19, 102-107.	0.9	477
4	Mechanics of Flexible Needles Robotically Steered through Soft Tissue. International Journal of Robotics Research, 2010, 29, 1640-1660.	5.8	251
5	Effect of sensory substitution on suture-manipulation forces for robotic surgical systems. Journal of Thoracic and Cardiovascular Surgery, 2005, 129, 151-158.	0.4	234
6	Haptics: The Present and Future of Artificial Touch Sensation. Annual Review of Control, Robotics, and Autonomous Systems, 2018, 1, 385-409.	7.5	226
7	Application of Haptic Feedback to Robotic Surgery. Journal of Laparoendoscopic and Advanced Surgical Techniques - Part A, 2004, 14, 191-195.	0.5	204
8	Haptic Virtual Fixtures for Robot-Assisted Manipulation. , 2007, , 49-64.		190
9	Reality-based models for vibration feedback in virtual environments. IEEE/ASME Transactions on Mechatronics, 2001, 6, 245-252.	3.7	186
10	Toward Active Cannulas: Miniature Snake-Like Surgical Robots. , 2006, , .		185
11	Effects of visual force feedback on robot-assisted surgical task performance. Journal of Thoracic and Cardiovascular Surgery, 2008, 135, 196-202.	0.4	185
12	Modeling of Tool-Tissue Interactions for Computer-Based Surgical Simulation: A Literature Review. Presence: Teleoperators and Virtual Environments, 2008, 17, 463-491.	0.3	168
13	Robot-Assisted Needle Steering. IEEE Robotics and Automation Magazine, 2011, 18, 35-46.	2.2	146
14	A Soft, Steerable Continuum Robot That Grows via Tip Extension. Soft Robotics, 2019, 6, 95-108.	4.6	130
15	Medical and Health-Care Robotics. IEEE Robotics and Automation Magazine, 2010, 17, 26-37.	2.2	122
16	Surgical and Interventional Robotics - Core Concepts, Technology, and Design [Tutorial]. IEEE Robotics and Automation Magazine, 2008, 15, 122-130.	2.2	115
17	Predictive Modeling by the Cerebellum Improves Proprioception. Journal of Neuroscience, 2013, 33, 14301-14306.	1.7	111
18	Series pneumatic artificial muscles (sPAMs) and application to a soft continuum robot. , 2017, 2017, 5503-5510.		111

#	Article	IF	Citations
19	Feeling is Believing: Using a Forceâ€Feedback Joystick to Teach Dynamic Systems. Journal of Engineering Education, 2002, 91, 345-349.	1.9	108
20	Vine Robots. IEEE Robotics and Automation Magazine, 2020, 27, 120-132.	2.2	97
21	Design and implementation of a 300% strain soft artificial muscle. , 2016, , .		91
22	Fingertip Tactile Devices for Virtual Object Manipulation and Exploration. , 2017, , .		89
23	Modeling and Control of Needles With Torsional Friction. IEEE Transactions on Biomedical Engineering, 2009, 56, 2905-2916.	2.5	85
24	Predicting and correcting ataxia using a model of cerebellar function. Brain, 2014, 137, 1931-1944.	3.7	85
25	Augmented reality and haptic interfaces for robotâ€assisted surgery. International Journal of Medical Robotics and Computer Assisted Surgery, 2012, 8, 45-56.	1.2	83
26	3-D Ultrasound-Guided Robotic Needle Steering in Biological Tissue. IEEE Transactions on Biomedical Engineering, 2014, 61, 2899-2910.	2.5	83
27	Motor learning affects car-to-driver handover in automated vehicles. Science Robotics, 2016, 1, .	9.9	82
28	Three-Dimensional Skin Deformation as Force Substitution: Wearable Device Design and Performance During Haptic Exploration of Virtual Environments. IEEE Transactions on Haptics, 2017, 10, 418-430.	1.8	82
29	Needle-tissue interaction forces for bevel-tip steerable needles. , 2008, , 224-231.		74
30	Robotic Needle Steering: Design, Modeling, Planning, and Image Guidance. , 2011, , 557-582.		74
31	Tissue property estimation and graphical display for teleoperated robot-assisted surgery. , 2009, , .		72
32	Behavior of Tip-Steerable Needles in Ex Vivo and In Vivo Tissue. IEEE Transactions on Biomedical Engineering, 2012, 59, 2705-2715.	2.5	72
33	An untethered isoperimetric soft robot. Science Robotics, 2020, 5, .	9.9	72
34	Integrated planning and image-guided control for planar needle steering. , 2008, 2008, 819-824.		71
35	A novel two-dimensional tactile slip display: design, kinematics and perceptual experiments. ACM Transactions on Applied Perception, 2005, 2, 150-165.	1.2	70
36	Controllable Surface Haptics via Particle Jamming and Pneumatics. IEEE Transactions on Haptics, 2015, 8, 20-30.	1.8	70

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37	The effect of visual and haptic feedback on computer-assisted needle insertion. Computer Aided Surgery, 2004, 9, 243-249.	1.8	69
38	Measurement, Analysis, and Display of Haptic Signals During Surgical Cutting. Presence: Teleoperators and Virtual Environments, 2002, 11, 626-651.	0.3	66
39	A Tip-Extending Soft Robot Enables Reconfigurable and Deployable Antennas. IEEE Robotics and Automation Letters, 2018, 3, 949-956.	3.3	66
40	Cerebellar motor learning: are environment dynamics more important than error size?. Journal of Neurophysiology, 2013, 110, 322-333.	0.9	65
41	Augmentation Of Stiffness Perception With a 1-Degree-of-Freedom Skin Stretch Device. IEEE Transactions on Human-Machine Systems, 2014, 44, 731-742.	2.5	65
42	Analysis of Suture Manipulation Forces for Teleoperation with Force Feedback. Lecture Notes in Computer Science, 2002, , 155-162.	1.0	63
43	Effects of haptic and graphical force feedback on teleoperated palpation. , 2009, , .		63
44	The importance of organ geometry and boundary constraints for planning of medical interventions. Medical Engineering and Physics, 2009, 31, 195-206.	0.8	62
45	Sensory Substitution and Augmentation Using 3-Degree-of-Freedom Skin Deformation Feedback. IEEE Transactions on Haptics, 2015, 8, 209-221.	1.8	61
46	Measurement of the Tip and Friction Force Acting on a Needle during Penetration. Lecture Notes in Computer Science, 2002, , 216-223.	1.0	57
47	Force-Feedback Surgical Teleoperator: Controller Design and Palpation Experiments. , 2008, , .		57
48	A social haptic device to create continuous lateral motion using sequential normal indentation. , 2018, , .		57
49	Identifying the role of proprioception in upper-limb prosthesis control. ACM Transactions on Applied Perception, 2010, 7, 1-23.	1.2	56
50	Efficient and Trustworthy Social Navigation via Explicit and Implicit Robotâ€“Human Communication. IEEE Transactions on Robotics, 2020, 36, 692-707.	7.3	56
51	Effects of robotic manipulators on movements of novices and surgeons. Surgical Endoscopy and Other Interventional Techniques, 2014, 28, 2145-2158.	1.3	54
52	Human vs. robotic tactile sensing: Detecting lumps in soft tissue. , 2010, , .		53
53	Speed-Accuracy Characteristics of Human-Machine Cooperative Manipulation Using Virtual Fixtures With Variable Admittance. Human Factors, 2004, 46, 518-532.	2.1	52
54	A Velocity-Dependent Model for Needle Insertion in Soft Tissue. Lecture Notes in Computer Science, 2005, 8, 624-632.	1.0	52

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55	Stable Forbidden-Region Virtual Fixtures for Bilateral Telemanipulation. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2006, 128, 53-64.	0.9	52
56	Modelling of non-linear elastic tissues for surgical simulation. Computer Methods in Biomechanics and Biomedical Engineering, 2010, 13, 811-818.	0.9	52
57	Sensory substitution via cutaneous skin stretch feedback. , 2013, , .		52
58	Haptics. , 2008, , 719-739.		51
59	Feedback control for steering needles through 3D deformable tissue using helical paths. , 2009, V, 37.		51
60	Modeling the Forces of Cutting With Scissors. IEEE Transactions on Biomedical Engineering, 2008, 55, 848-856.	2.5	50
61	Methods to Segment Hard Inclusions in Soft Tissue During Autonomous Robotic Palpation. IEEE Transactions on Robotics, 2015, 31, 344-354.	7.3	49
62	Friction Compensation for Enhancing Transparency of a Teleoperator With Compliant Transmission. , 2007, 23, 1240-1246.		47
63	The Touch Thimble: Providing Fingertip Contact Feedback During Point-Force Haptic Interaction. , 2008, , .		47
64	Uncontrolled Manifold Analysis of Arm Joint Angle Variability During Robotic Teleoperation and Freehand Movement of Surgeons and Novices. IEEE Transactions on Biomedical Engineering, 2014, 61, 2869-2881.	2.5	47
65	Design of 3-D Printed Concentric Tube Robots. IEEE Transactions on Robotics, 2016, 32, 1419-1430.	7.3	47
66	Dynamic Augmented Reality for Sensory Substitution in Robot-Assisted Surgical Systems. , 2006, 2006, 567-70.		46
67	A single-use haptic palpation probe for locating subcutaneous blood vessels in robot-assisted minimally invasive surgery. , 2015, , .		46
68	Surgical and interventional robotics: part III [Tutorial]. IEEE Robotics and Automation Magazine, 2008, 15, 84-93.	2.2	44
69	Active force perception depends on cerebellar function. Journal of Neurophysiology, 2012, 107, 1612-1620.	0.9	44
70	The effect of visual and haptic feedback on computer-assisted needle insertion*. Computer Aided Surgery, 2004, 9, 243-249.	1.8	44
71	Coaxial Needle Insertion Assistant With Enhanced Force Feedback. IEEE Transactions on Biomedical Engineering, 2013, 60, 379-389.	2.5	43
72	Methods for Improving the Curvature of Steerable Needles in Biological Tissue. IEEE Transactions on Biomedical Engineering, 2016, 63, 1167-1177.	2.5	43

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73	WRAP: Wearable, restricted-aperture pneumatics for haptic guidance. , 2017, , .		42
74	Robust navigation of a soft growing robot by exploiting contact with the environment. International Journal of Robotics Research, 2020, 39, 1724-1738.	5.8	42
75	Observations and models for needle-tissue interactions. , 2009, , .		41
76	Pseudo-admittance Bilateral Telemanipulation with Guidance Virtual Fixtures. International Journal of Robotics Research, 2007, 26, 865-884.	5.8	39
77	Modeling of Bioinspired Apical Extension in a Soft Robot. Lecture Notes in Computer Science, 2017, , 522-531.	1.0	39
78	The Effect of Visual and Haptic Feedback on Manual and Teleoperated Needle Insertion. Lecture Notes in Computer Science, 2002, , 147-154.	1.0	38
79	Characterization of pre-curved needles for steering in tissue. , 2009, 2009, 1200-3.		38
80	3-D printed haptic devices for educational applications. , 2016, , .		38
81	Surgical and interventional robotics: Part II. IEEE Robotics and Automation Magazine, 2008, 15, 94-102.	2.2	37
82	Evaluation of robotic needle steering in ex vivo tissue. , 2010, 2010, 2068-2073.		37
83	Grip Force Control during Virtual Object Interaction: Effect of Force Feedback, Accuracy Demands, and Training. IEEE Transactions on Haptics, 2014, 7, 37-47.	1.8	37
84	Tactor-Induced Skin Stretch as a Sensory Substitution Method in Teleoperated Palpation. IEEE Transactions on Human-Machine Systems, 2015, 45, 714-726.	2.5	37
85	Exomuscle: An inflatable device for shoulder abduction support. , 2017, , .		35
86	Obstacle-Aided Navigation of a Soft Growing Robot. , 2018, , .		35
87	APAM: Antagonistic Pneumatic Artificial Muscle. , 2018, , .		34
88	Design and evaluation of duty-cycling steering algorithms for robotically-driven steerable needles. , 2014, , .		33
89	HapWRAP: Soft Growing Wearable Haptic Device. , 2018, , .		33
90	Design, Modeling, Control, and Application of Everting Vine Robots. Frontiers in Robotics and AI, 2020, 7, 548266.	2.0	33

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91	Stiffness discrimination with visual and proprioceptive cues. , 2009, , .		32
92	Modeling and design of asymmetric vibrations to induce ungrounded pulling sensation through asymmetric skin displacement. , 2016, , .		32
93	Stability and quantization-error analysis of haptic rendering of virtual stiffness and damping. International Journal of Robotics Research, 2016, 35, 1103-1120.	5.8	32
94	Evaluation of Skin Deformation Tactile Feedback for Teleoperated Surgical Tasks. IEEE Transactions on Haptics, 2019, 12, 102-113.	1.8	32
95	Helical actuation on a soft inflated robot body. , 2018, , .		31
96	Autonomous robotic palpation: Machine learning techniques to identify hard inclusions in soft tissues. , 2013, , .		30
97	Teleoperation of Steerable Needles. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	29
98	Design of a Compact Actuation and Control System for Flexible Medical Robots. IEEE Robotics and Automation Letters, 2017, 2, 1579-1585.	3.3	29
99	Effects of Visual and Proprioceptive Motion Feedback on Human Control of Targeted Movement. , 2007, , .		28
100	Torsional Dynamics of Steerable Needles: Modeling and Fluoroscopic Guidance. IEEE Transactions on Biomedical Engineering, 2014, 61, 2707-2717.	2.5	28
101	Highly Articulated Robotic Needle Achieves Distributed Ablation of Liver Tissue. IEEE Robotics and Automation Letters, 2017, 2, 1367-1374.	3.3	28
102	Sensory substitution using 3-degree-of-freedom tangential and normal skin deformation feedback. , 2014, , .		27
103	Robotic Assistance-as-Needed for Enhanced Visuomotor Learning in Surgical Robotics Training: An Experimental Study. , 2018, , .		27
104	Plugfest 2009: Global interoperability in Telerobotics and telemedicine. , 2010, 2010, 1733-1738.		26
105	Rendered and Characterized Closed-Loop Accuracy of Impedance-Type Haptic Displays. IEEE Transactions on Haptics, 2015, 8, 434-446.	1.8	26
106	Force Feedback and Sensory Substitution for Robot-Assisted Surgery. , 2011, , 419-448.		26
107	Upper Extremity Exomuscle for Shoulder Abduction Support. IEEE Transactions on Medical Robotics and Bionics, 2020, 2, 474-484.	2.1	26
108	Deformable Model-Based Methods for Shape Control of a Haptic Jamming Surface. IEEE Transactions on Visualization and Computer Graphics, 2017, 23, 1029-1041.	2.9	25

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109	Design of a soft catheter for low-force and constrained surgery. , 2017, , .		25
110	Design and Analysis of Pneumatic 2-DoF Soft Haptic Devices for Shear Display. IEEE Robotics and Automation Letters, 2019, 4, 1365-1371.	3.3	25
111	Haptic Simulation of Elbow Joint Spasticity. , 2008, , .		24
112	HAPI Bands: A haptic augmented posture interface. , 2012, , .		24
113	Characterization and Psychophysical Studies of an Air-Jet Lump Display. IEEE Transactions on Haptics, 2013, 6, 156-166.	1.8	24
114	Closed-loop shape control of a Haptic Jamming deformable surface. , 2016, , .		24
115	Virtual Remote Center of Motion control for needle placement robotsâ€¡. Computer Aided Surgery, 2004, 9, 175-183.	1.8	24
116	Force & torque feedback vs force only feedback. , 2009, , .		23
117	Perception of Springs With Visual and Proprioceptive Motion Cues: Implications for Prosthetics. IEEE Transactions on Human-Machine Systems, 2013, 43, 102-114.	2.5	23
118	Haptic feedback enhances rhythmic motor control by reducing variability, not improving convergence rate. Journal of Neurophysiology, 2014, 111, 1286-1299.	0.9	23
119	M-Width: Stability, noise characterization, and accuracy of rendering virtual mass. International Journal of Robotics Research, 2015, 34, 781-798.	5.8	23
120	Toward the Design of Personalized Continuum Surgical Robots. Annals of Biomedical Engineering, 2018, 46, 1522-1533.	1.3	23
121	Teleoperated versus open needle driving: Kinematic analysis of experienced surgeons and novice users. , 2015, , .		22
122	Haptic orientation guidance using two parallel double-gimbal control moment gyroscopes. IEEE Transactions on Haptics, 2018, 11, 267-278.	1.8	22
123	Techniques for environment parameter estimation during telemanipulation. , 2008, , .		21
124	Design considerations and human-machine performance of moving virtual fixtures. , 2009, , .		21
125	Task-dependent impedance and implications for upper-limb prosthesis control. International Journal of Robotics Research, 2014, 33, 827-846.	5.8	21
126	Learning and generalization in an isometric visuomotor task. Journal of Neurophysiology, 2015, 113, 1873-1884.	0.9	21

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127	A Tip Mount for Transporting Sensors and Tools using Soft Growing Robots. , 2020, , .		21
128	Haptics in medicine and clinical skill acquisition [special section intro.]. IEEE Transactions on Haptics, 2011, 4, 153-154.	1.8	20
129	Characterization of robotic needle insertion and rotation in artificial and ex vivo tissues. , 2012, , .		20
130	Sensory augmentation of stiffness using fingerpad skin stretch. , 2013, , .		20
131	Sensory substitution of force and torque using 6-DoF tangential and normal skin deformation feedback. , 2015, , .		20
132	Training in divergent and convergent force fields during 6-DOF teleoperation with a robot-assisted surgical system. , 2017, , .		20
133	Model-Based Design of a Soft 3-DÂHaptic Shape Display. IEEE Transactions on Robotics, 2020, 36, 613-628.	7.3	20
134	Vision-Based Assistance for Ophthalmic Micro-Surgery. Lecture Notes in Computer Science, 2004, , 49-57.	1.0	19
135	Enhancing Transparency of a Position-Exchange Teleoperator. , 2007, , .		19
136	Controlling a robotically steered needle in the presence of torsional friction. , 2009, , 3476-3481.		19
137	Modeling Realistic Tool-Tissue Interactions with Haptic Feedback: A Learning-based Method. , 2008, , .		18
138	Estimation of model parameters for steerable needles. , 2010, , 3703-3708.		18
139	Wearable haptic device for cutaneous force and slip speed display. , 2012, , .		18
140	Perception of a Haptic Jamming display: Just noticeable differences in stiffness and geometry. , 2014, , .		18
141	Artificial Tactile Sensing of Position and Slip Speed by Exploiting Geometrical Features. IEEE/ASME Transactions on Mechatronics, 2015, 20, 263-274.	3.7	18
142	Soft Haptic Device to Render the Sensation of Flying Like a Drone. IEEE Robotics and Automation Letters, 2019, 4, 2524-2531.	3.3	18
143	Dynamically Reconfigurable Discrete Distributed Stiffness for Inflated Beam Robots. , 2020, , .		18
144	Dynamic Guidance with Pseudoadmittance Virtual Fixtures. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	17

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145	Effects of Translational and Gripping Force Feedback are Decoupled in a 4-Degree-of-Freedom Telemanipulator. , 2007, , .		17
146	A paced shared-control teleoperated architecture for supervised automation of multilateral surgical tasks. , 2015, , .		17
147	Stiffness Control of Deformable Robots Using Finite Element Modeling. IEEE Robotics and Automation Letters, 2019, 4, 469-476.	3.3	17
148	Toward human-robot collaboration in surgery: Performance assessment of human and robotic agents in an inclusion segmentation task. , 2016, , .		16
149	Holdable Haptic Device for 4-DOF Motion Guidance. , 2019, , .		16
150	Human Interface for Teleoperated Object Manipulation with a Soft Growing Robot. , 2020, , .		16
151	A framework for analysis of surgeon arm posture variability in robot-assisted surgery. , 2013, , .		15
152	Investigating Social Haptic Illusions for Tactile Stroking (SHIFTS). , 2020, , .		15
153	Effect of load force feedback on grip force control during teleoperation: A preliminary study. , 2014, , .		14
154	Closed-loop stiffness and damping accuracy of impedance-type haptic displays. , 2014, , .		14
155	Design and evaluation of a trilateral shared-control architecture for teleoperated training robots. , 2015, 2015, 4887-93.		14
156	Effects of master-slave tool misalignment in a teleoperated surgical robot. , 2015, , .		14
157	Two is not always better than one: Effects of teleoperation and haptic coupling. , 2016, , .		14
158	A Framework for Multilateral Manipulation in Surgical Tasks. IEEE Transactions on Automation Science and Engineering, 2016, 13, 68-77.	3.4	14
159	Design of patient-specific concentric tube robots using path planning from 3-D ultrasound. , 2017, 2017, 165-168.		14
160	Perception of force and stiffness in the presence of low-frequency haptic noise. PLoS ONE, 2017, 12, e0178605.	1.1	14
161	Real-Time 3D Curved Needle Segmentation Using Combined B-Mode and Power Doppler Ultrasound. Lecture Notes in Computer Science, 2014, 17, 381-388.	1.0	14
162	Force Feedback is Noticeably Different for Linear versus Nonlinear Elastic Tissue Models. , 2007, , .		13

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163	Environment discrimination with vibration feedback to the foot, arm, and fingertip. , 2009, , .		13
164	Conveying the configuration of a virtual human hand using vibrotactile feedback. , 2012, , .		13
165	Design and control of an air-jet lump display. , 2012, , .		13
166	3D Segmentation of Curved Needles Using Doppler Ultrasound and Vibration. Lecture Notes in Computer Science, 2013, , 61-70.	1.0	13
167	Haptic technologies for direct touch in virtual reality. , 2016, , .		13
168	Facilitating Human-Mobile Robot Communication via Haptic Feedback and Gesture Teleoperation. ACM Transactions on Human-Robot Interaction, 2018, 7, 1-23.	3.2	13
169	Observations of needle-tissue interactions. , 2009, 2009, 262-5.		12
170	Characterization of an air jet haptic lump display. , 2011, 2011, 3467-70.		12
171	Experimental evaluation of a coaxial needle insertion assistant with enhanced force feedback. , 2011, 2011, 3447-50.		12
172	Time-delayed teleoperation for interaction with moving objects in space. , 2014, , .		12
173	3-DoF Wearable, Pneumatic Haptic Device to Deliver Normal, Shear, Vibration, and Torsion Feedback. , 2019, , .		12
174	3D Electromagnetic Reconfiguration Enabled by Soft Continuum Robots. IEEE Robotics and Automation Letters, 2020, 5, 1704-1711.	3.3	12
175	Task-dependent impedance improves user performance with a virtual prosthetic arm. , 2011, , .		11
176	A dual-flywheel ungrounded haptic feedback system provides single-axis moment pulses for clear direction signals. , 2016, , .		11
177	Surgeon design interface for patient-specific concentric tube robots. , 2016, 2016, 41-48.		11
178	Open source, modular, customizable, 3-D printed kinesthetic haptic devices. , 2017, , .		11
179	A Sufficient Condition for Passive Virtual Walls With Quantization Effects. , 2004, , 1065.		10
180	Simulating the impact of sensorimotor deficits on reaching performance. , 2017, 2017, 31-37.		10

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181	Understanding Continuous and Pleasant Linear Sensations on the Forearm From a Sequential Discrete Lateral Skin-Slip Haptic Device. IEEE Transactions on Haptics, 2019, 12, 414-427.	1.8	10
182	Evolution and Analysis of Hapkit: An Open-Source Haptic Device for Educational Applications. IEEE Transactions on Haptics, 2020, 13, 354-367.	1.8	10
183	Control methods for guidance virtual fixtures in compliant human-machine interfaces. , 2008, , .		9
184	Does a basic deficit in force control underlie cerebellar ataxia?. Journal of Neurophysiology, 2013, 109, 1107-1116.	0.9	9
185	Mapping stiffness perception in the brain with an fMRI-compatible particle-jamming haptic interface. , 2014, 2014, 2051-6.		9
186	Comparison of kinesthetic and skin deformation feedback for mass rendering. , 2016, , .		9
187	A simulator to explore the role of haptic feedback in cataract surgery training. Studies in Health Technology and Informatics, 2008, 132, 106-11.	0.2	9
188	Haptic footstep display. , 2012, , .		8
189	Recursive estimation of needle pose for control of 3D-ultrasound-guided robotic needle steering. , 2014, , .		8
190	Comparison Between Force-Controlled Skin Deformation Feedback and Hand-Grounded Kinesthetic Force Feedback for Sensory Substitution. IEEE Robotics and Automation Letters, 2018, 3, 2174-2181.	3.3	8
191	Teleoperation of an Ankle-Foot Prosthesis With a Wrist Exoskeleton. IEEE Transactions on Biomedical Engineering, 2021, 68, 1714-1725.	2.5	8
192	Geometric Solutions for General Actuator Routing on Inflated-Beam Soft Growing Robots. IEEE Transactions on Robotics, 2022, 38, 1820-1840.	7.3	8
193	Data-Driven Sparse Skin Stimulation Can Convey Social Touch Information to Humans. IEEE Transactions on Haptics, 2022, 15, 392-404.	1.8	8
194	Effects of Proprioceptive Motion Feedback on Sighted and Non-Sighted Control of a Virtual Hand Prosthesis. , 2008, , .		7
195	Coaxial needle insertion assistant for epidural puncture. , 2011, , .		7
196	Adaptation to visuomotor rotation in isometric reaching is similar to movement adaptation. , 2013, 2013, 6650431.		7
197	The effect of a robot-assisted surgical system on the kinematics of user movements. , 2013, 2013, 6257-60.		7
198	Neural coding of passive lump detection in compliant artificial tissue. Journal of Neurophysiology, 2014, 112, 1131-1141.	0.9	7

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199	Models of human-centered automation in a debridement task. , 2015, , .		7
200	Design and experimental evaluation of a skin-stretch haptic device for improved control of brain-computer interfaces. , 2015, , .		7
201	Plane Assist: The Influence of Haptics on Ultrasound-Based Needle Guidance. Lecture Notes in Computer Science, 2016, , 370-377.	1.0	7
202	Haptic Dimensions of Human-Robot Interaction. ACM Transactions on Human-Robot Interaction, 2018, 7, 1-3.	3.2	7
203	Scaling Inertial Forces to Alter Weight Perception in Virtual Reality. , 2018, , .		7
204	Effects of Different Hand-Grounding Locations on Haptic Performance With a Wearable Kinesthetic Haptic Device. IEEE Robotics and Automation Letters, 2019, 4, 351-358.	3.3	7
205	M-Width: Stability and Accuracy of Haptic Rendering of Virtual Mass. , 0, , .		7
206	Perceived Intensities of Normal and Shear Skin Stimuli Using a Wearable Haptic Bracelet. IEEE Robotics and Automation Letters, 2022, 7, 6099-6106.	3.3	7
207	FingerPrint: A 3-D Printed Soft Monolithic 4-Degree-of-Freedom Fingertip Haptic Device with Embedded Actuation. , 2022, , .		7
208	Friction Compensation for a Force-Feedback Teleoperator with Compliant Transmission. , 2006, , .		6
209	Virtual Fixture Control for Compliant Human-Machine Interfaces. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	6
210	Design of a haptic simulator for osteosynthesis screw insertion. , 2010, , .		6
211	Design and evaluation of a multi-modal haptic skin stimulation apparatus. , 2011, 2011, 3455-8.		6
212	AFREEs: Active Fiber Reinforced Elastomeric Enclosures. , 2020, , .		6
213	Body-Mounted Vibrotactile Stimuli: Simultaneous Display of Taps on the Fingertips and Forearm. IEEE Transactions on Haptics, 2021, 14, 432-444.	1.8	6
214	A 4-Degree-of-Freedom Parallel Origami Haptic Device for Normal, Shear, and Torsion Feedback. IEEE Robotics and Automation Letters, 2022, 7, 3310-3317.	3.3	6
215	Telemanipulators with Sensor/Actuator Asymmetries Fail the Robustness Criterion. , 2008, , .		5
216	Defining performance tradeoffs for multi-degree-of-freedom bilateral teleoperators with LQG control. , 2010, , .		5

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217	Coaxial needle insertion assistant for epidural puncture. , 2011, , .		5
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