

# Michael A Peshkin

## List of Publications by Year in descending order

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Version: 2024-02-01

89  
papers

3,376  
citations

304743

22  
h-index

233421

45  
g-index

90  
all docs

90  
docs citations

90  
times ranked

2548  
citing authors

#	ARTICLE	IF	CITATIONS
1	Robotic touch shifts perception of embodiment to a prosthesis in targeted reinnervation amputees. <i>Brain</i> , 2011, 134, 747-758.	7.6	366
2	T-PaD: Tactile Pattern Display through Variable Friction Reduction. , 2007, , .		264
3	Physical Collaboration of Human-Human and Human-Robot Teams. <i>IEEE Transactions on Haptics</i> , 2008, 1, 108-120.	2.7	185
4	Safety for Physical Human-Robot Interaction. , 2008, , 1335-1348.		142
5	Cobots. <i>Industrial Robot</i> , 1999, 26, 335-341.	2.1	128
6	Haptically Linked Dyads. <i>Psychological Science</i> , 2006, 17, 365-366.	3.3	122
7	Active-Impedance Control of a Lower-Limb Assistive Exoskeleton. , 2007, , .		118
8	A Highly Backdrivable, Lightweight Knee Actuator for Investigating Gait in Stroke. <i>IEEE Transactions on Robotics</i> , 2009, 25, 539-548.	10.3	117
9	Enhancing physicality in touch interaction with programmable friction. , 2011, , .		111
10	Inertia Compensation Control of a One-Degree-of-Freedom Exoskeleton for Lower-Limb Assistance: Initial Experiments. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2012, 20, 68-77.	4.9	107
11	KineAssist: Design and Development of a Robotic Overground Gait and Balance Therapy Device. <i>Topics in Stroke Rehabilitation</i> , 2008, 15, 131-139.	1.9	105
12	Design of an active one-degree-of-freedom lower-limb exoskeleton with inertia compensation. <i>International Journal of Robotics Research</i> , 2011, 30, 486-499.	8.5	103
13	Entropic predictions for cellular networks. <i>Physical Review Letters</i> , 1991, 67, 1803-1806.	7.8	91
14	Fingertip friction modulation due to electrostatic attraction. , 2013, , .		91
15	ShiverPaD: A Glass Haptic Surface That Produces Shear Force on a Bare Finger. <i>IEEE Transactions on Haptics</i> , 2010, 3, 189-198.	2.7	87
16	On the Design of Miniature Haptic Devices for Upper Extremity Prosthetics. <i>IEEE/ASME Transactions on Mechatronics</i> , 2010, 15, 27-39.	5.8	81
17	Preswing Knee Flexion Assistance Is Coupled With Hip Abduction in People With Stiff-Knee Gait After Stroke. <i>Stroke</i> , 2010, 41, 1709-1714.	2.0	76
18	Dynamics of ultrasonic and electrostatic friction modulation for rendering texture on haptic surfaces. , 2014, , .		66

#	ARTICLE	IF	CITATIONS
19	Surface haptics via electroadhesion: Expanding electrovibration with Johnsen and Rahbek. , 2015, , .		65
20	Measuring and Increasing Z-Width with Active Electrical Damping. , 2008, , .		58
21	The Cobot Hand Controller: Design, Control and Performance of a Novel Haptic Display. International Journal of Robotics Research, 2006, 25, 1099-1119.	8.5	50
22	Haptic cooperation between people, and between people and machines. , 2006, , .		50
23	Development of a Mechatronic Platform and Validation of Methods for Estimating Ankle Stiffness During the Stance Phase of Walking. Journal of Biomechanical Engineering, 2013, 135, 81009.	1.3	45
24	Friction measurements on a Large Area TPAD. , 2010, , .		44
25	Finding and identifying simple objects underwater with active electrosense. International Journal of Robotics Research, 2015, 34, 1255-1277.	8.5	40
26	A High-Fidelity Surface-Haptic Device for Texture Rendering on Bare Finger. Lecture Notes in Computer Science, 2014, , 241-248.	1.3	40
27	Tooling-integrated sensing systems for stamping process monitoring. International Journal of Machine Tools and Manufacture, 2009, 49, 634-644.	13.4	38
28	A 1-DOF assistive exoskeleton with virtual negative damping: effects on the kinematic response of the lower limbs. , 2007, , .		34
29	Tactile Paintbrush: A procedural method for generating spatial haptic texture. , 2016, , .		29
30	Motion Guides for Assisted Manipulation. International Journal of Robotics Research, 2002, 21, 27-43.	8.5	28
31	Lessons learned from a novel teleoperation testbed. Industrial Robot, 2006, 33, 187-193.	2.1	27
32	Replicating Human-Human Physical Interaction. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	26
33	Static Single-Arm Force Generation With Kinematic Constraints. Journal of Neurophysiology, 2005, 93, 2752-2765.	1.8	24
34	Design of a Mobile, Inexpensive Device for Upper Extremity Rehabilitation at Home. , 2007, , .		23
35	Haptic Display of Constrained Dynamic Systems via Admittance Displays. IEEE Transactions on Robotics, 2007, 23, 101-111.	10.3	23
36	Registration and immobilization in robot-assisted surgery. Journal of Image Guided Surgery, 1995, 1, 80-87.	0.3	23

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37	Kinematic Creep in a Continuously Variable Transmission: Traction Drive Mechanics for Cobots. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2002, 124, 713-722.	2.9	21
38	The use of localizers, robots and synergistic devices in CAS. <i>Lecture Notes in Computer Science</i> , 1997, , 725-736.	1.3	20
39	Modeling and synthesis of tactile texture with spatial spectrograms for display on variable friction surfaces. , 2015, , .		17
40	On the electrical characterization of electroadhesive displays and the prominent interfacial gap impedance associated with sliding fingertips. , 2018, , .		17
41	Sensing capacitance of underwater objects in bio-inspired electrosense. , 2012, , .		15
42	UltraShiver: Lateral force feedback on a bare fingertip via ultrasonic oscillation and electroadhesion. , 2018, , .		15
43	UltraShiver: Lateral Force Feedback on a Bare Fingertip via Ultrasonic Oscillation and Electroadhesion. <i>IEEE Transactions on Haptics</i> , 2019, 12, 497-507.	2.7	15
44	Development of a Model Osseo-Magnetic Link for Intuitive Rotational Control of Upper-Limb Prostheses. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2011, 19, 213-220.	4.9	13
45	Single pitch perception of multi-frequency textures. , 2018, , .		13
46	Enhanced detection performance in electrosense through capacitive sensing. <i>Bioinspiration and Biomimetics</i> , 2016, 11, 055001.	2.9	12
47	Controlling the Apparent Inertia of Passive Human-Interactive Robots. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2006, 128, 44-52.	1.6	10
48	LateralPaD: A surface-haptic device that produces lateral forces on a bare finger. , 2012, , .		10
49	Building a Navigable Fine Texture Design Space. <i>IEEE Transactions on Haptics</i> , 2021, 14, 897-906.	2.7	10
50	The application of tactile, audible, and ultrasonic forces to human fingertips using broadband electroadhesion. , 2017, , .		9
51	Localized Rendering of Button Click Sensation via Active Lateral Force Feedback. , 2019, , .		9
52	ShiverPad: A device capable of controlling shear force on a bare finger. , 2009, , .		8
53	Design and validation of a platform robot for determination of ankle impedance during ambulation. , 2011, 2011, 8179-82.		8
54	Integrated Sensing System for Stamping Monitoring Control. , 2007, , .		7

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55	Toward Improved CVTs: Theoretical and Experimental Results. , 2002, , 855.		6
56	A Draw-In Sensor for Process Control and Optimization. AIP Conference Proceedings, 2005, , .	0.4	6
57	Power Efficiency of the Rotational-to-Linear Infinitely Variable Cobotic Transmission. Journal of Mechanical Design, Transactions of the ASME, 2007, 129, 1285-1293.	2.9	6
58	Using Haptic Communications with the Leg to Maintain Exercise Intensity. , 2007, , .		6
59	Passive Robotics: An Exploration of Mechanical Computation. , 1990, , .		5
60	A Miniature Tactor Design for Upper Extremity Prosthesis. , 2007, , .		5
61	Pulling your strings. IEEE Robotics and Automation Magazine, 2008, 15, 70-78.	2.0	5
62	On the Design of a Thermal Display for Upper Extremity Prosthetics. , 2008, , .		5
63	Pressure and Draw-In Maps for Stamping Process Monitoring. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2016, 138, .	2.2	5
64	Cobotic Architecture for Prosthetics. , 2006, 2006, 5635-7.		4
65	Causes of Microslip in a Continuously Variable Transmission. Journal of Mechanical Design, Transactions of the ASME, 2008, 130, .	2.9	4
66	Using Kinesthetic and Tactile Cues to Maintain Exercise Intensity. IEEE Transactions on Haptics, 2009, 2, 224-235.	2.7	4
67	Search Efficiency for Tactile Features Rendered by Surface Haptic Displays. IEEE Transactions on Haptics, 2014, 7, 545-550.	2.7	4
68	The contribution of air to ultrasonic friction reduction. , 2017, , .		4
69	A Soft Wearable Tactile Device Using Lateral Skin Stretch. , 2021, , .		4
70	Catastrophe and Stability Analysis of a Cable-Driven Actuator. , 2006, 2006, 2429-33.		3
71	A Pilot Study of a Thermal Display Using a Miniature Tactor for Upper Extremity Prosthesis. , 2007, , .		3
72	Surface haptic feature attenuation due to contact on opposing surface. , 2012, , .		3

#	ARTICLE	IF	CITATIONS
73	Perceptual collapse: The fusion of spatially distinct tactile cues into a single percept. , 2013, , .		3
74	Multiple Fingers “ One Gestalt. IEEE Transactions on Haptics, 2016, 9, 255-266.	2.7	3
75	Human-in-the-loop active electrosense. Bioinspiration and Biomimetics, 2017, 12, 014001.	2.9	3
76	Spatial perception of textures depends on length-scale. , 2021, , .		3
77	Quantitative Evaluation of Neural Networks for NDE Applications Using the ROC Curve. , 1995, , 2405-2412.		3
78	A Low-Parameter Rendering Algorithm for Fine Textures. IEEE Transactions on Haptics, 2022, 15, 57-61.	2.7	3
79	Integrator for measuring magnetic fields. Review of Scientific Instruments, 1981, 52, 1108-1109.	1.3	2
80	Phase transitions in dilute, locally connected neural networks. Physical Review A, 1992, 45, 6135-6138.	2.5	2
81	Registration and Immobilization in Robot-Assisted Surgery. Computer Aided Surgery, 1995, 1, 80-87.	1.8	2
82	Adaptation to knee flexion torque during gait. , 2009, , .		2
83	Coincidence avoidance principle in surface haptic interpretation. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2605-2610.	7.1	2
84	Causes of Slip in a Continuously Variable Transmission. , 2003, , 775.		1
85	Viscous textures: Velocity dependence in fingertip-surface scanning interaction. , 2016, , .		1
86	SwitchPaD: Active Lateral Force Feedback over a Large Area Based on Switching Resonant Modes. Lecture Notes in Computer Science, 2020, , 217-225.	1.3	1
87	A Cyclic Robot for Lower Limb Exercise. Journal of Medical Devices, Transactions of the ASME, 2011, 5, .	0.7	0
88	Cobotic Architecture for Prosthetics. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
89	Catastrophe and Stability Analysis of a Cable-Driven Actuator. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0