Ingvars Birznieks

List of Publications by Year
in descending order

58	2,160	394421 19	243625 44
papers	citations	h-index	g-index

66	66	66	1862
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Relationship Between Tactile Intensity Perception and Afferent Spike Count Is Moderated by a Function of Frequency. IEEE Transactions on Haptics, 2022, PP, 1-1.	2.7	2
2	Submillimeter Lateral Displacement Enables Friction Sensing and Awareness of Surface Slipperiness. IEEE Transactions on Haptics, 2022, 15, 20-25.	2.7	3
3	The burst gap is a peripheral temporal code for pitch perception that is shared across audition and touch. Scientific Reports, 2022, 12, .	3.3	2
4	Burst gap code predictions for tactile frequency are valid across the range of perceived frequencies attributed to two distinct tactile channels. Journal of Neurophysiology, 2021, 125, 687-692.	1.8	5
5	Friction sensing mechanisms for perception and motor control: passive touch without sliding may not provide perceivable frictional information. Journal of Neurophysiology, 2021, 125, 809-823.	1.8	15
6	Movement Planning Determines Sensory Suppression: An Event-related Potential Study. Journal of Cognitive Neuroscience, 2021, 33, 2427-2439.	2.3	9
7	Recent progress in artificial synaptic devices: materials, processing and applications. Journal of Materials Chemistry C, 2021, 9, 8372-8394.	5.5	41
8	Initial contact shapes the perception of friction. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	19
9	Temporal patterns in electrical nerve stimulation: Burst gap code shapes tactile frequency perception. PLoS ONE, 2020, 15, e0237440.	2.5	10
10	Tapping Into the Language of Touch: Using Non-invasive Stimulation to Specify Tactile Afferent Firing Patterns. Frontiers in Neuroscience, 2020, 14, 500.	2.8	8
11	Peripheral Nerve Activation Evokes Machine-Learnable Signals in the Dorsal Column Nuclei. Frontiers in Systems Neuroscience, 2019, 13, 11.	2.5	7
12	Effects of tonic muscle pain on fusimotor control of human muscle spindles during isometric ankle dorsiflexion. Journal of Neurophysiology, 2019, 121, 1143-1149.	1.8	7
13	Tactile sensory channels over-ruled by frequency decoding system that utilizes spike pattern regardless of receptor type. ELife, 2019, 8, .	6.0	33
14	Can Video Self-Modeling Improve Affected Limb Reach and Grasp Ability in Stroke Patients?. Journal of Motor Behavior, 2018, 50, 117-126.	0.9	7
15	Tactile Sensors for Friction Estimation and Incipient Slip Detectionâ€"Toward Dexterous Robotic Manipulation: A Review. IEEE Sensors Journal, 2018, 18, 9049-9064.	4.7	130
16	Perceived Frequency of Aperiodic Vibrotactile Stimuli Depends on Temporal Encoding. Lecture Notes in Computer Science, 2018, , 199-208.	1.3	9
17	Spike Timing Matters in Novel Neuronal Code Involved in Vibrotactile Frequency Perception. Current Biology, 2017, 27, 1485-1490.e2.	3.9	47
18	Muscle spindles in human tibialis anterior encode muscle fascicle length changes. Journal of Neurophysiology, 2017, 117, 1489-1498.	1.8	42

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19	Haptics in Neuroscience. IEEE Transactions on Haptics, 2016, 9, 443-445.	2.7	0
20	The tactile motion aftereffect suggests an intensive code for speed in neurons sensitive to both speed and direction of motion. Journal of Neurophysiology, 2016, 115, 1703-1712.	1.8	13
21	Somatotopic mismatch of hand representation following stroke: is recovery possible?. Neurocase, 2016, 22, 95-102.	0.6	5
22	The Bayesian Decoding of Force Stimuli from Slowly Adapting Type I Fibers in Humans. PLoS ONE, 2016, 11, e0153366.	2.5	1
23	Decoding tactile afferent activity to obtain an estimate of instantaneous force and torque applied to the fingerpad. Journal of Neurophysiology, 2015, 114, 474-484.	1.8	16
24	Effects of changing skin mechanics on the differential sensitivity to surface compliance by tactile afferents in the human finger pad. Journal of Neurophysiology, 2015, 114, 2249-2257.	1.8	17
25	A point process approach to encode tactile afferents. , 2015, , .		0
26	The effects of preferential A- and C-fibre blocks and T-type calcium channel antagonist on detection of low-force monofilaments in healthy human participants. BMC Neuroscience, 2015, 16, 52.	1.9	18
27	Tactile afferents encode grip safety before slip for different frictions. , 2014, 2014, 4123-6.		19
28	Consistent interindividual increases or decreases in muscle sympathetic nerve activity during experimental muscle pain. Experimental Brain Research, 2014, 232, 1309-1315.	1.5	17
29	Single tactile afferents outperform human subjects in a vibrotactile intensity discrimination task. Journal of Neurophysiology, 2014, 112, 2382-2387.	1.8	6
30	Differential sensitivity to surface compliance by tactile afferents in the human finger pad. Journal of Neurophysiology, 2014, 111, 1308-1317.	1.8	22
31	Lateral Skin Stretch Influences Direction Judgments of Motion Across the Skin. Lecture Notes in Computer Science, 2014, , 425-431.	1.3	7
32	Classification of Texture and Frictional Condition at Initial Contact by Tactile Afferent Responses. Lecture Notes in Computer Science, 2014, , 460-468.	1.3	14
33	Generating tactile afferent stimulation patterns for slip and touch feedback in neural prosthetics. , 2013, 2013, 5922-5.		6
34	Tonic muscle pain does not increase fusimotor drive to human leg muscles: implications for chronic muscle pain. Experimental Physiology, 2013, 98, 1125-1132.	2.0	14
35	Decoding tactile sensation: Multiple regression analysis of monkey fingertip afferent mechanoreceptor population responses. , 2012, 2012, 4631-4.		3
36	Individual differences in the cardiovascular responses to tonic muscle pain: parallel increases or decreases in muscle sympathetic nerve activity, blood pressure and heart rate. Experimental Physiology, 2012, 97, 1084-1092.	2.0	43

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37	Biphasic effects of tonic stimulation of muscle nociceptors on skin sympathetic nerve activity in human subjects. Experimental Brain Research, 2012, 221, 107-114.	1.5	8
38	Spontaneous fluctuations in the peripheral photoplethysmographic waveform: roles of arterial pressure and muscle sympathetic nerve activity. American Journal of Physiology - Heart and Circulatory Physiology, 2012, 302, H826-H836.	3.2	21
39	Somatotopic mismatch following stroke: a pathophysiological condition escaping detection. BMJ Case Reports, 2012, 2012, bcr2012006304-bcr2012006304.	0.5	7
40	Modulation of Human Muscle Spindle Discharge by Arterial Pulsations - Functional Effects and Consequences. PLoS ONE, 2012, 7, e35091.	2.5	23
41	Tactile Motion Adaptation Reduces Perceived Speed but Shows No Evidence of Direction Sensitivity. PLoS ONE, 2012, 7, e45438.	2.5	14
42	Encoding of tangential torque in responses of tactile afferent fibres innervating the fingerpad of the monkey. Journal of Physiology, 2010, 588, 1057-1072.	2.9	43
43	Classifying Torque, Normal Force and Direction Using Monkey Afferent Nerve Spike Rates. Lecture Notes in Computer Science, 2010, , 43-50.	1.3	6
44	Slowly Adapting Mechanoreceptors in the Borders of the Human Fingernail Encode Fingertip Forces. Journal of Neuroscience, 2009, 29, 9370-9379.	3.6	63
45	Effects of deep and superficial experimentally induced acute pain on skin sympathetic nerve activity in human subjects. Experimental Brain Research, 2009, 195, 317-324.	1.5	30
46	Effects of deep and superficial experimentally induced acute pain on muscle sympathetic nerve activity in human subjects. Journal of Physiology, 2009, 587, 183-193.	2.9	66
47	Melatonin agonist tasimelteon (VEC-162) for transient insomnia after sleep-time shift: two randomised controlled multicentre trials. Lancet, The, 2009, 373, 482-491.	13.7	193
48	Cutaneous Mechanoreceptors, Functional Behavior. , 2009, , 914-922.		10
49	Does muscle pain increase muscle stiffness?. , 2009, , 21-22.		0
50	The effects of experimental muscle and skin pain on the static stretch sensitivity of human muscle spindles in relaxed leg muscles. Journal of Physiology, 2008, 586, 2713-2723.	2.9	36
51	14-3-3. , 2008, , 1-1.		2
52	First spikes in ensembles of human tactile afferents code complex spatial fingertip events. Nature Neuroscience, 2004, 7, 170-177.	14.8	501
53	Influence of object shape on responses of human tactile afferents under conditions characteristic of manipulation. European Journal of Neuroscience, 2003, 18, 164-176.	2.6	113
54	Encoding of Direction of Fingertip Forces by Human Tactile Afferents. Journal of Neuroscience, 2001, 21, 8222-8237.	3.6	299

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55	Directional encoding of fingertip force by human tactile afferents. Acta Physiologica Scandinavica, 1999, 167, 181 A24-181 A24.	2.2	14
56	Differential responses in populations of fingertip tactile afferents to objectsâ€™ surface curvatures. Acta Physiologica Scandinavica, 1999, 167, 181 A24-181 A25.	2.2	3
57	Mechanisms for Force Adjustments to Unpredictable Frictional Changes at Individual Digits During Two-Fingered Manipulation. Journal of Neurophysiology, 1998, 80, 1989-2002.	1.8	49
58	Control of Forces Applied by Individual Fingers Engaged in Restraint of an Active Object. Journal of Neurophysiology, 1997, 78, 117-128.	1.8	28