Roland S Johansson

List of Publications by Year in Descending Order

133 papers	19,339 citations	70 h-index	139 g-index
140 ext. papers	21,304 ext. citations	4.5 avg, IF	6.7 L-index

#	Paper	IF	Citations
133	Human Touch Receptors Are Sensitive to Spatial Details on the Scale of Single Fingerprint Ridges. *Journal of Neuroscience*, **2021**, 41, 3622-3634	6.6	6
132	Disinhibition of Human Primary Somatosensory Cortex After Median Nerve Transection and Reinnervation. *Frontiers in Human Neuroscience*, **2020**, 14, 166	3.3	3
131	Structural changes in hand related cortical areas after median nerve injury and repair. *Scientific Reports*, **2018**, 8, 4485	4.9	2
130	Fast and accurate edge orientation processing during object manipulation. *ELife*, **2018**, 7,	8.9	33
129	Representing multiple object weights: competing priors and sensorimotor memories. *Journal of Neurophysiology*, **2016**, 116, 1615-1625	3.2	6
128	A Rapid Tactile-Motor Reflex Automatically Guides Reaching toward Handheld Objects. *Current Biology*, **2016**, 26, 788-92	6.3	37
127	Rapid Visuomotor Corrective Responses during Transport of Hand-Held Objects Incorporate Novel Object Dynamics. *Journal of Neuroscience*, **2015**, 35, 10572-80	6.6	21
126	Temporal profile and amplitude of human masseter muscle activity is adapted to food properties during individual chewing cycles. *Journal of Oral Rehabilitation*, **2014**, 41, 367-73	3.4	32
125	Edge-orientation processing in first-order tactile neurons. *Nature Neuroscience*, **2014**, 17, 1404-9	25.5	126
124	Gaze behavior when learning to link sequential action phases in a manual task. *Journal of Vision*, **2014**, 14,	0.4	18
123	Adaptation of lift forces in object manipulation through action observation. *Experimental Brain Research*, **2013**, 228, 221-34	2.3	16
122	The role of observers' gaze behaviour when watching object manipulation tasks: predicting and evaluating the consequences of action. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2013**, 368, 20130063	5.8	16
121	Skill learning involves optimizing the linking of action phases. *Journal of Neurophysiology*, **2013**, 110, 1291-300	3.2	14
120	Integration of sensory quanta in cuneate nucleus neurons in vivo. *PLoS ONE*, **2013**, 8, e56630	3.7	45
119	Waiting for a hand: saccadic reaction time increases in proportion to hand reaction time when reaching under a visuomotor reversal. *Frontiers in Human Neuroscience*, **2013**, 7, 319	3.3	9
118	BOLD responses to tactile stimuli in visual and auditory cortex depend on the frequency content of stimulation. *Journal of Cognitive Neuroscience*, **2012**, 24, 2120-34	3.1	23
117	Material evidence: interaction of well-learned priors and sensorimotor memory when lifting objects. *Journal of Neurophysiology*, **2012**, 108, 1262-9	3.2	74

116	Adaptability of mastication in people with implant-supported bridges. *Journal of Clinical Periodontology*, **2011**, 38, 395-404	7.7	51
115	Quantifying neurotransmission reliability through metrics-based information analysis. *Neural Computation*, **2011**, 23, 852-81	2.9	12
114	Isometric Coding of Spiking Haptic Signals by Peripheral Somatosensory Neurons. *Lecture Notes in Computer Science*, **2011**, 528-536	0.9	2
113	Selection of prime actor in humans during bimanual object manipulation. *Journal of Neuroscience*, **2010**, 30, 10448-59	6.6	9
112	Slowly adapting mechanoreceptors in the borders of the human fingernail encode fingertip forces. *Journal of Neuroscience*, **2009**, 29, 9370-9	6.6	47
111	Information about complex fingertip parameters in individual human tactile afferent neurons. *Journal of Neuroscience*, **2009**, 29, 8022-31	6.6	45
110	Humans can integrate force feedback to toes in their sensorimotor control of a robotic hand. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2009**, 17, 560-7	4.8	33
109	Eye-hand coordination in a sequential target contact task. *Experimental Brain Research*, **2009**, 195, 273-83	2.3	60
108	Coding and use of tactile signals from the fingertips in object manipulation tasks. *Nature Reviews Neuroscience*, **2009**, 10, 345-59	13.5	1079
107	Experience can change distinct size-weight priors engaged in lifting objects and judging their weights. *Current Biology*, **2008**, 18, 1742-7	6.3	123
106	Gaze Interface: Utilizing Human Predictive Gaze Movements for Controlling a HBS **2008**,		2
105	Biomimetic Tactile Sensor Array. *Advanced Robotics*, **2008**, 22, 829-849	1.7	244
104	Gaze behavior when reaching to remembered targets. *Journal of Neurophysiology*, **2008**, 100, 1533-43	3.2	26
103	A bio-inspired predictive sensory-motor coordination scheme for robot reaching and preshaping. *Autonomous Robots*, **2008**, 25, 85-101	3	17
102	Precision grip function after free toe transfer in children with hypoplastic digits. *Journal of Plastic, Reconstructive and Aesthetic Surgery*, **2007**, 60, 13-23	1.7	10
101	Biomimetic Tactile Sensor for Control of Grip **2007**,		10
100	Zones of bimanual and unimanual preference within human primary sensorimotor cortex during object manipulation. *NeuroImage*, **2007**, 36 Suppl 2, T2-T15	7.9	29
99	Control strategies in object manipulation tasks. *Current Opinion in Neurobiology*, **2006**, 16, 650-9	7.6	317

98	EMG changes in human thenar motor units with force potentiation and fatigue. *Journal of Neurophysiology*, **2006**, 95, 1518-26	3.2	27
97	Eye movements when observing predictable and unpredictable actions. *Journal of Neurophysiology*, **2006**, 96, 1358-69	3.2	64
96	How a lateralized brain supports symmetrical bimanual tasks. *PLoS Biology*, **2006**, 4, e158	9.7	49
95	Eye-hand coordination during learning of a novel visuomotor task. *Journal of Neuroscience*, **2005**, 25, 8833-42	6.6	190
94	First spikes in ensembles of human tactile afferents code complex spatial fingertip events. *Nature Neuroscience*, **2004**, 7, 170-7	25.5	413
93	Evidence for the involvement of the posterior parietal cortex in coordination of fingertip forces for grasp stability in manipulation. *Journal of Neurophysiology*, **2003**, 90, 2978-86	3.2	124
92	Loads applied tangential to a fingertip during an object restraint task can trigger short-latency as well as long-latency EMG responses in hand muscles. *Experimental Brain Research*, **2003**, 152, 143-9	2.3	17
91	Prediction precedes control in motor learning. *Current Biology*, **2003**, 13, 146-50	6.3	311
90	Influence of object shape on responses of human tactile afferents under conditions characteristic of manipulation. *European Journal of Neuroscience*, **2003**, 18, 164-76	3.5	91
89	Action plans used in action observation. *Nature*, **2003**, 424, 769-71	50.4	516
88	Engagement of gaze in capturing targets for future sequential manual actions. *Journal of Neurophysiology*, **2002**, 88, 1716-25	3.2	24
87	Incidence of F waves in single human thenar motor units. *Muscle and Nerve*, **2002**, 25, 77-82	3.4	21
86	Orofacial mechanoreceptors in humans: encoding characteristics and responses during natural orofacial behaviors. *Behavioural Brain Research*, **2002**, 135, 27-33	3.4	106
85	Predictions specify reactive control of individual digits in manipulation. *Journal of Neuroscience*, **2002**, 22, 600-10	6.6	24
84	Dynamic use of tactile afferent signals in control of dexterous manipulation. *Advances in Experimental Medicine and Biology*, **2002**, 508, 397-410	3.6	39
83	Sensorimotor prediction and memory in object manipulation. *Canadian Journal of Experimental Psychology*, **2001**, 55, 87-95	0.8	98
82	Eye-hand coordination in object manipulation. *Journal of Neuroscience*, **2001**, 21, 6917-32	6.6	599
81	Encoding of direction of fingertip forces by human tactile afferents. *Journal of Neuroscience*, **2001**, 21, 8222-37	6.6	242

80	Action tremor during object manipulation in Parkinson's disease. *Movement Disorders*, **2000**, 15, 244-54	7	55
79	Reactive control of precision grip does not depend on fast transcortical reflex pathways in X-linked Kallmann subjects. *Journal of Physiology*, **2000**, 527 Pt 3, 641-52	3.9	8
78	Cortical activity in precision- versus power-grip tasks: an fMRI study. *Journal of Neurophysiology*, **2000**, 83, 528-36	3.2	483
77	Visual and tactile information about object-curvature control fingertip forces and grasp kinematics in human dexterous manipulation. *Journal of Neurophysiology*, **2000**, 84, 2984-97	3.2	91
76	Control of grasp stability in humans under different frictional conditions during multidigit manipulation. *Journal of Neurophysiology*, **1999**, 82, 2393-405	3.2	120
75	Control of fingertip forces in multidigit manipulation. *Journal of Neurophysiology*, **1999**, 81, 1706-17	3.2	120
74	Pattern of pulses that maximize force output from single human thenar motor units. *Journal of Neurophysiology*, **1999**, 82, 3188-95	3.2	48
73	Sensorimotor interactions between pairs of fingers in bimanual and unimanual manipulative tasks. *Experimental Brain Research*, **1999**, 127, 43-53	2.3	39
72	Control of grasp stability during pronation and supination movements. *Experimental Brain Research*, **1999**, 128, 20-30	2.3	57
71	Control of grip force when tilting objects: effect of curvature of grasped surfaces and applied tangential torque. *Journal of Neuroscience*, **1998**, 18, 10724-34	6.6	83
70	Control of grasp stability when humans lift objects with different surface curvatures. *Journal of Neurophysiology*, **1998**, 79, 1643-52	3.2	65
69	Mechanisms for force adjustments to unpredictable frictional changes at individual digits during two-fingered manipulation. *Journal of Neurophysiology*, **1998**, 80, 1989-2002	3.2	41
68	Sensory input and control of grip. *Novartis Foundation Symposium*, **1998**, 218, 45-59; discussion 59-63		80
67	Robotic stiffness control and calibration as applied to human grasping tasks. *IEEE Transactions on Automation Science and Engineering*, **1997**, 13, 557-566		47
66	Visual and somatosensory information about object shape control manipulative fingertip forces. *Journal of Neuroscience*, **1997**, 17, 4486-99	6.6	219
65	Sensory and Mnemonic Factors in the Neural Control of Finger Tip Forces in Manipulative Tasks. *Journal of Sport and Exercise Psychology*, **1997**, 19, S2	1.5	
64	Control of forces applied by individual fingers engaged in restraint of an active object. *Journal of Neurophysiology*, **1997**, 78, 117-28	3.2	26
63	Tangential torque effects on the control of grip forces when holding objects with a precision grip. *Journal of Neurophysiology*, **1997**, 78, 1619-30	3.2	125

62	Coordination of fingertip forces during human manipulation can emerge from independent neural networks controlling each engaged digit. *Experimental Brain Research*, **1997**, 117, 67-79	2.3	60
61	Encoding of tooth loads by human periodontal afferents and their role in jaw motor control. *Progress in Neurobiology*, **1996**, 49, 267-84	10.9	105
60	Forces applied by the incisors and roles of periodontal afferents during food-holding and -biting tasks. *Experimental Brain Research*, **1996**, 107, 486-96	2.3	60
59	Nondigital afferent input in reactive control of fingertip forces during precision grip. *Experimental Brain Research*, **1996**, 110, 131-41	2.3	76
58	Grip-force responses to unanticipated object loading: load direction reveals body- and gravity-referenced intrinsic task variables. *Experimental Brain Research*, **1996**, 110, 142-50	2.3	62
57	Control of grip force during restraint of an object held between finger and thumb: responses of cutaneous afferents from the digits. *Experimental Brain Research*, **1996**, 108, 155-71	2.3	106
56	Control of grip force during restraint of an object held between finger and thumb: responses of muscle and joint afferents from the digits. *Experimental Brain Research*, **1996**, 108, 172-84	2.3	92
55	Development of human precision grip. V. anticipatory and triggered grip actions during sudden loading. *Experimental Brain Research*, **1995**, 106, 425-33	2.3	70
54	Development of human precision grip. IV. Tactile adaptation of isometric finger forces to the frictional condition. *Experimental Brain Research*, **1995**, 104, 323-30	2.3	75
53	Corticospinal control during reach, grasp, and precision lift in man. *Journal of Neuroscience*, **1995**, 15, 6145-56	6.6	191
52	Encoding of amplitude and rate of forces applied to the teeth by human periodontal mechanoreceptive afferents. *Journal of Neurophysiology*, **1994**, 72, 1734-44	3.2	67
51	Grasp stability during manipulative actions. *Canadian Journal of Physiology and Pharmacology*, **1994**, 72, 511-24	2.4	157
50	Electrical signs of cortical involvement in the automatic control of grip force. *NeuroReport*, **1994**, 5, 2229-32	1.7	15
49	Memory representations underlying motor commands used during manipulation of common and novel objects. *Journal of Neurophysiology*, **1993**, 69, 1789-96	3.2	345
48	Friction at the digit-object interface scales the sensorimotor transformation for grip responses to pulling loads. *Experimental Brain Research*, **1993**, 95, 523-32	2.3	87
47	Responses of human mechanoreceptive afferents to embossed dot arrays scanned across fingerpad skin. *Journal of Neuroscience*, **1992**, 12, 827-39	6.6	143
46	Independent control of human finger-tip forces at individual digits during precision lifting. *Journal of Physiology*, **1992**, 450, 547-64	3.9	169
45	Directional sensitivity of human periodontal mechanoreceptive afferents to forces applied to the teeth. *Journal of Physiology*, **1992**, 447, 373-89	3.9	83

44	Sensory-motor coordination during grasping and manipulative actions. *Current Opinion in Neurobiology*, **1992**, 2, 815-23	7.6	321
43	Development of human precision grip. II. Anticipatory control of isometric forces targeted for object's weight. *Experimental Brain Research*, **1992**, 90, 393-8	2.3	133
42	Development of human precision grip. III. Integration of visual size cues during the programming of isometric forces. *Experimental Brain Research*, **1992**, 90, 399-403	2.3	62
41	Somatosensory control of precision grip during unpredictable pulling loads. I. Changes in load force amplitude. *Experimental Brain Research*, **1992**, 89, 181-91	2.3	163
40	Somatosensory control of precision grip during unpredictable pulling loads. II. Changes in load force rate. *Experimental Brain Research*, **1992**, 89, 192-203	2.3	133
39	Somatosensory control of precision grip during unpredictable pulling loads. III. Impairments during digital anesthesia. *Experimental Brain Research*, **1992**, 89, 204-13	2.3	163
38	Development of human precision grip. I: Basic coordination of force. *Experimental Brain Research*, **1991**, 85, 451-7	2.3	243
37	Visual size cues in the programming of manipulative forces during precision grip. *Experimental Brain Research*, **1991**, 83, 477-82	2.3	298
36	The integration of haptically acquired size information in the programming of precision grip. *Experimental Brain Research*, **1991**, 83, 483-8	2.3	92
35	Integration of sensory information during the programming of precision grip: comments on the contributions of size cues. *Experimental Brain Research*, **1991**, 85, 226-9	2.3	100
34	Attempts to physiologically classify human thenar motor units. *Journal of Neurophysiology*, **1991**, 65, 1501-8	3.2	72
33	Force-frequency relationships of human thenar motor units. *Journal of Neurophysiology*, **1991**, 65, 1509-16	3.2	96
32	Representation of braille characters in human nerve fibres. *Experimental Brain Research*, **1990**, 81, 589-92	2.3	106
31	Twitch properties of human thenar motor units measured in response to intraneural motor-axon stimulation. *Journal of Neurophysiology*, **1990**, 64, 1339-46	3.2	94
30	A comparison of human thenar motor-unit properties studied by intraneural motor-axon stimulation and spike-triggered averaging. *Journal of Neurophysiology*, **1990**, 64, 1347-51	3.2	66
29	Coordinated isometric muscle commands adequately and erroneously programmed for the weight during lifting task with precision grip. *Experimental Brain Research*, **1988**, 71, 59-71	2.3	486
28	Programmed and triggered actions to rapid load changes during precision grip. *Experimental Brain Research*, **1988**, 71, 72-86	2.3	289
27	Mechanoreceptor activity from the human face and oral mucosa. *Experimental Brain Research*, **1988**, 72, 204-8	2.3	181

26	Mechanoreceptive afferent activity in the infraorbital nerve in man during speech and chewing movements. *Experimental Brain Research*, **1988**, 72, 209-14	2.3	98
25	Responses in glabrous skin mechanoreceptors during precision grip in humans. *Experimental Brain Research*, **1987**, 66, 128-40	2.3	316
24	Signals in tactile afferents from the fingers eliciting adaptive motor responses during precision grip. *Experimental Brain Research*, **1987**, 66, 141-54	2.3	544
23	Acute impairment of the sensitivity of skin mechanoreceptive units caused by vibration exposure of the hand. *Ergonomics*, **1986**, 29, 687-98	2.9	45
22	Reflex origin for the slowing of motoneurone firing rates in fatigue of human voluntary contractions. *Journal of Physiology*, **1986**, 379, 451-9	3.9	407
21	Roles of glabrous skin receptors and sensorimotor memory in automatic control of precision grip when lifting rougher or more slippery objects. *Experimental Brain Research*, **1984**, 56, 550-64	2.3	1151
20	Factors influencing the force control during precision grip. *Experimental Brain Research*, **1984**, 53, 277-84	2.3	697
19	Regional differences and interindividual variability in sensitivity to vibration in the glabrous skin of the human hand. *Brain Research*, **1984**, 301, 65-72	3.7	69
18	Tactile detection thresholds for a single asperity on an otherwise smooth surface. *Somatosensory & Motor Research*, **1983**, 1, 21-31		59
17	Tactile sensory coding in the glabrous skin of the human hand. *Trends in Neurosciences*, **1983**, 6, 27-32	13.3	423
16	Changes in motoneurone firing rates during sustained maximal voluntary contractions. *Journal of Physiology*, **1983**, 340, 335-46	3.9	323
15	Contractile speed and EMG changes during fatigue of sustained maximal voluntary contractions. *Journal of Neurophysiology*, **1983**, 50, 313-24	3.2	416
14	Motor-unit discharge rates in maximal voluntary contractions of three human muscles. *Journal of Neurophysiology*, **1983**, 50, 1380-92	3.2	299
13	Responses of mechanoreceptive afferent units in the glabrous skin of the human hand to sinusoidal skin displacements. *Brain Research*, **1982**, 244, 17-25	3.7	327
12	Sensitivity to edges of mechanoreceptive afferent units innervating the glabrous skin of the human head. *Brain Research*, **1982**, 244, 27-35	3.7	93
11	Thresholds of mechanosensitive afferents in the human hand as measured with von Frey hairs. *Brain Research*, **1980**, 184, 343-51	3.7	153
10	Spatial properties of the population of mechanoreceptive units in the glabrous skin of the human hand. *Brain Research*, **1980**, 184, 353-66	3.7	152
9	Tactile sensibility in the human hand: relative and absolute densities of four types of mechanoreceptive units in glabrous skin. *Journal of Physiology*, **1979**, 286, 283-300	3.9	805

8	Detection of tactile stimuli. Thresholds of afferent units related to psychophysical thresholds in the human hand. *Journal of Physiology*, **1979**, 297, 405-22	3.9	212
7	Tactile Afferent Units with Small and Well Demarcated Receptive Fields in the Glabrous Skin Area of the Human Hand **1979**, 129-152		17
6	Tactile sensibility in the human hand: receptive field characteristics of mechanoreceptive units in the glabrous skin area. *Journal of Physiology*, **1978**, 281, 101-25	3.9	290
5	Receptive field sensitivity profile of mechanosensitive units innervating the glabrous skin of the human hand. *Brain Research*, **1976**, 104, 330-4	3.7	37
4	Microelectrode recordings from human oral mechanoreceptors. *Brain Research*, **1976**, 118, 307-11	3.7	61
3	Sensory control of object manipulation141-160		14
2	Predictive mechanisms and object representations used in object manipulation161-177		9
1	Fast and accurate edge orientation processing during object manipulation		1