JÃ¶rn Diedrichsen

List of Publications by Year
in descending order

136 papers	16,136 citations	24978 57 h-index	20307 116 g-index
155 all docs	155 docs citations	155 times ranked	13105 citing authors

#	Article	IF	Citations
1	Motor planning brings human primary somatosensory cortex into action-specific preparatory states. ELife, 2022, 11, .	2.8	40
2	Factors governing the assignment of visual consequence to the corresponding action. Journal of Neurophysiology, 2022, 127, 756-766.	0.9	1
3	No evidence for motor-recovery-related cortical connectivity changes after stroke using resting-state fMRI. Journal of Neurophysiology, 2022, 127, 637-650.	0.9	5
4	The role of feedback in the production of skilled finger sequences. Journal of Neurophysiology, 2022, 127, 829-839.	0.9	1
5	Motor skill learning decreases movement variability and increases planning horizon. Journal of Neurophysiology, 2022, 127, 995-1006.	0.9	9
6	Evaluating brain parcellations using the distanceâ€controlled boundary coefficient. Human Brain Mapping, 2022, 43, 3706-3720.	1.9	22
7	Malleability of the cortical hand map following a finger nerve block. Science Advances, 2022, 8, eabk2393.	4.7	15
8	Mapping the Integration of Sensory Information across Fingers in Human Sensorimotor Cortex. Journal of Neuroscience, 2022, 42, 5173-5185.	1.7	10
9	The Planning Horizon for Movement Sequences. ENeuro, 2021, 8, ENEURO.0085-21.2021.	0.9	9
10	Combining Repetition Suppression and Pattern Analysis Provides New Insights into the Role of M1 and Parietal Areas in Skilled Sequential Actions. Journal of Neuroscience, 2021, 41, 7649-7661.	1.7	6
11	Comparing representational geometries using whitened unbiased-distance-matrix similarity. Neurons, Behavior, Data Analysis, and Theory, 2021, 5, .	1.8	20
12	Gaze control during reaching is flexibly modulated to optimize task outcome. Journal of Neurophysiology, 2021, 126, 816-826.	0.9	1
13	The effect of instruction on motor skill learning. Journal of Neurophysiology, 2020, 124, 1449-1457.	0.9	18
14	The human cerebellum has almost 80% of the surface area of the neocortex. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 19538-19543.	3.3	117
15	Structure of Population Activity in Primary Motor Cortex for Single Finger Flexion and Extension. Journal of Neuroscience, 2020, 40, 9210-9223.	1.7	13
16	<i>Repetita iuvant:</i> repetition facilitates online planning of sequential movements. Journal of Neurophysiology, 2020, 123, 1727-1738.	0.9	9
17	Sensory information from a slipping object elicits a rapid and automatic shoulder response. Journal of Neurophysiology, 2020, 123, 1103-1112.	0.9	7
18	A critical re-evaluation of fMRI signatures of motor sequence learning. ELife, 2020, 9, .	2.8	58

#	Article	IF	Citations
19	Functional boundaries in the human cerebellum revealed by a multi-domain task battery. Nature Neuroscience, 2019, 22, 1371-1378.	7.1	406
20	Peeling the Onion of Brain Representations. Annual Review of Neuroscience, 2019, 42, 407-432.	5.0	84
21	Universal Transform or Multiple Functionality? Understanding the Contribution of the Human Cerebellum across Task Domains. Neuron, 2019, 102, 918-928.	3.8	169
22	Cortical beta oscillations are associated with motor performance following visuomotor learning. NeuroImage, 2019, 195, 340-353.	2.1	48
23	Rethinking interhemispheric imbalance as a target for stroke neurorehabilitation. Annals of Neurology, 2019, 85, 502-513.	2.8	85
24	Binding During Sequence Learning Does Not Alter Cortical Representations of Individual Actions. Journal of Neuroscience, 2019, 39, 6968-6977.	1.7	13
25	Ipsilateral finger representations in the sensorimotor cortex are driven by active movement processes, not passive sensory input. Journal of Neurophysiology, 2019, 121, 418-426.	0.9	55
26	Obtaining and maintaining cortical hand representation as evidenced from acquired and congenital handlessness. ELife, 2019, 8, .	2.8	53
27	Evidence for a subcortical origin of mirror movements after stroke: a longitudinal study. Brain, 2018, 141, 837-847.	3.7	47
28	In search of the engram, 2017. Current Opinion in Behavioral Sciences, 2018, 20, 56-60.	2.0	18
29	The Role of Human Primary Motor Cortex in the Production of Skilled Finger Sequences. Journal of Neuroscience, 2018, 38, 1430-1442.	1.7	90
30	Decoupling between the hand territory and the default mode network after bilateral arm transplantation: four-year follow-up case study. Brain Imaging and Behavior, 2018, 12, 296-302.	1.1	6
31	Cerebellar volume and cerebellocerebral structural covariance in schizophrenia: a multisite mega-analysis of 983 patients and 1349 healthy controls. Molecular Psychiatry, 2018, 23, 1512-1520.	4.1	175
32	Pattern component modeling: A flexible approach for understanding the representational structure of brain activity patterns. NeuroImage, 2018, 180, 119-133.	2.1	62
33	Chronic Stroke Survivors Improve Reaching Accuracy by Reducing Movement Variability at the Trained Movement Speed. Neurorehabilitation and Neural Repair, 2017, 31, 499-508.	1.4	15
34	Modulation of 7ÂT fMRI Signal in the Cerebellar Cortex and Nuclei During Acquisition, Extinction, and Reacquisition of Conditioned Eyeblink Responses. Human Brain Mapping, 2017, 38, 3957-3974.	1.9	22
35	Separable systems for recovery of finger strength and control after stroke. Journal of Neurophysiology, 2017, 118, 1151-1163.	0.9	94
36	Restricted transfer of learning between unimanual and bimanual finger sequences. Journal of Neurophysiology, 2017, 117, 1043-1051.	0.9	22

#	Article	IF	Citations
37	Cooperation Not Competition: Bihemispheric tDCS and fMRI Show Role for Ipsilateral Hemisphere in Motor Learning. Journal of Neuroscience, 2017, 37, 7500-7512.	1.7	66
38	Representational models: A common framework for understanding encoding, pattern-component, and representational-similarity analysis. PLoS Computational Biology, 2017, 13, e1005508.	1.5	231
39	Minimizing endpoint variability through reinforcement learning during reaching movements involving shoulder, elbow and wrist. PLoS ONE, 2017, 12, e0180803.	1.1	10
40	Perceptual decisions are biased by the cost to act. ELife, 2017, 6, .	2.8	70
41	Inferring brain-computational mechanisms with models of activity measurements. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20160278.	1.8	45
42	Temporal Evolution of Spatial Computations for Visuomotor Control. Journal of Neuroscience, 2016, 36, 2329-2341.	1.7	43
43	Reliability of dissimilarity measures for multi-voxel pattern analysis. NeuroImage, 2016, 137, 188-200.	2.1	413
44	Processing reafferent and exafferent visual information for action and perception. Journal of Vision, 2015, 15, 11.	0.1	9
45	Whole-Brain In-vivo Measurements of the Axonal G-Ratio in a Group of 37 Healthy Volunteers. Frontiers in Neuroscience, 2015, 9, 441.	1.4	97
46	Hand use predicts the structure of representations in sensorimotor cortex. Nature Neuroscience, 2015, 18, 1034-1040.	7.1	219
47	Proprioception in motor learning: lessons from a deafferented subject. Experimental Brain Research, 2015, 233, 2449-2459.	0.7	40
48	Reading the mind to move the body. Science, 2015, 348, 860-861.	6.0	6
49	Cerebellar Cortex and Cerebellar Nuclei Are Concomitantly Activated during Eyeblink Conditioning: A 7T fMRI Study in Humans. Journal of Neuroscience, 2015, 35, 1228-1239.	1.7	48
50	The dissociable effects of punishment and reward on motor learning. Nature Neuroscience, 2015, 18, 597-602.	7.1	284
51	Structural and functional MRI abnormalities of cerebellar cortex and nuclei in SCA3, SCA6 and Friedreichâ€™s ataxia. Brain, 2015, 138, 1182-1197.	3.7	106
52	Manipulating motor performance and memory through real-time fMRI neurofeedback. Biological Psychology, 2015, 108, 85-97.	1.1	97
53	Motor skill learning between selection and execution. Trends in Cognitive Sciences, 2015, 19, 227-233.	4.0	206
54	Learning feedback and feedforward control in a mirror-reversed visual environment. Journal of Neurophysiology, 2015, 114, 2187-2193.	0.9	34

#	Article	IF	Citations
55	Surface-Based Display of Volume-Averaged Cerebellar Imaging Data. PLoS ONE, 2015, 10, e0133402.	1.1	221
56	When Money Is Not Enough: Awareness, Success, and Variability in Motor Learning. PLoS ONE, 2014, 9, e86580.	1.1	39
57	Effector-Independent Motor Sequence Representations Exist in Extrinsic and Intrinsic Reference Frames. Journal of Neuroscience, 2014, 34, 5054-5064.	1.7	71
58	Mirror Reversal and Visual Rotation Are Learned and Consolidated via Separate Mechanisms: Recalibrating or Learning<i>De Novo</i>?. Journal of Neuroscience, 2014, 34, 13768-13779.	1.7	99
59	Bihemispheric Transcranial Direct Current Stimulation Enhances Effector-Independent Representations of Motor Synergy and Sequence Learning. Journal of Neuroscience, 2014, 34, 1037-1050.	1.7	134
60	Transcranial Direct Current Stimulation of Right Dorsolateral Prefrontal Cortex Does Not Affect Model-Based or Model-Free Reinforcement Learning in Humans. PLoS ONE, 2014, 9, e86850.	1.1	27
61	Widespread age-related differences in the human brain microstructure revealed by quantitative magnetic resonance imaging. Neurobiology of Aging, 2014, 35, 1862-1872.	1.5	248
62	A Dedicated Binding Mechanism for the Visual Control of Movement. Current Biology, 2014, 24, 780-785.	1.8	62
63	Movement speed is biased by prior experience. Journal of Neurophysiology, 2014, 111, 128-134.	0.9	28
64	Human premotor areas parse sequences into their spatial and temporal features. ELife, 2014, 3, e03043.	2.8	83
65	A 7T fMRI study of cerebellar activation in sequential finger movement tasks. Experimental Brain Research, 2013, 228, 243-254.	0.7	19
66	Mechanisms of responsibility assignment during redundant reaching movements. Journal of Neurophysiology, 2013, 109, 2021-2028.	0.9	14
67	A multivariate method to determine the dimensionality of neural representation from population activity. NeuroImage, 2013, 76, 225-235.	2.1	45
68	Flexible Switching of Feedback Control Mechanisms Allows for Learning of Different Task Dynamics. PLoS ONE, 2013, 8, e54771.	1.1	16
69	Interaction of temporal and ordinal representations in movement sequences. Journal of Neurophysiology, 2013, 109, 1416-1424.	0.9	32
70	Two Distinct Ipsilateral Cortical Representations for Individuated Finger Movements. Cerebral Cortex, 2013, 23, 1362-1377.	1.6	155
71	Rapid feedback corrections during a bimanual postural task. Journal of Neurophysiology, 2013, 109, 147-161.	0.9	62
72	Skill learning strengthens cortical representations of motor sequences. ELife, 2013, 2, e00801.	2.8	158

#	Article	IF	Citations
73	Structural learning in feedforward and feedback control. Journal of Neurophysiology, 2012, 108, 2373-2382.	0.9	61
74	Encoding of Sensory Prediction Errors in the Human Cerebellum. Journal of Neuroscience, 2012, 32, 4913-4922.	1.7	147
75	Stimulating News about Modular Motor Control. Neuron, 2012, 76, 1043-1045.	3.8	9
76	Cerebellar regions involved in adaptation to force field and visuomotor perturbation. Journal of Neurophysiology, 2012, 107, 134-147.	0.9	164
77	Evidence for a motor somatotopy in the cerebellar dentate nucleusâ€"An FMRI study in humans. Human Brain Mapping, 2012, 33, 2741-2749.	1.9	47
78	Comparing the similarity and spatial structure of neural representations: A pattern-component model. NeuroImage, 2011, 55, 1665-1678.	2.1	87
79	A comparison of volume-based and surface-based multi-voxel pattern analysis. NeuroImage, 2011, 56, 593-600.	2.1	179
80	Imaging the deep cerebellar nuclei: A probabilistic atlas and normalization procedure. NeuroImage, 2011, 54, 1786-1794.	2.1	319
81	Evidence for a motor and a non-motor domain in the human dentate nucleus â€" An fMRI study. NeuroImage, 2011, 54, 2612-2622.	2.1	87
82	Principles of sensorimotor learning. Nature Reviews Neuroscience, 2011, 12, 739-751.	4.9	1,161
83	Grip force regulates hand impedance to optimize object stability in high impact loads. Neuroscience, 2011, 189, 269-276.	1.1	32
84	Sensory cancellation of self-movement facilitates visual motion detection. Journal of Vision, 2011, 11, 5-5.	0.1	11
85	Integration of sensory and motor representations of single fingers in the human cerebellum. Journal of Neurophysiology, 2011, 105, 3042-3053.	0.9	102
86	Surface-Based Information Mapping Reveals Crossmodal Visionâ€"Action Representations in Human Parietal and Occipitotemporal Cortex. Journal of Neurophysiology, 2010, 104, 1077-1089.	0.9	222
87	Responsibility Assignment in Redundant Systems. Current Biology, 2010, 20, 1290-1295.	1.8	44
88	Use-Dependent and Error-Based Learning of Motor Behaviors. Journal of Neuroscience, 2010, 30, 5159-5166.	1.7	296
89	Transcranial magnetic stimulation of posterior parietal cortex affects decisions of hand choice. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17751-17756.	3.3	101
90	Repetition Suppression Dissociates Spatial Frames of Reference in Human Saccade Generation. Journal of Neurophysiology, 2010, 104, 1239-1248.	0.9	20

#	Article	IF	Citations
91	The coordination of movement: optimal feedback control and beyond. Trends in Cognitive Sciences, 2010, 14, 31-39.	4.0	423
92	Evolution of the cerebellar cortex: The selective expansion of prefrontal-projecting cerebellar lobules. NeuroImage, 2010, 49, 2045-2052.	2.1	190
93	Advances in functional imaging of the human cerebellum. Current Opinion in Neurology, 2010, 23, 382-387.	1.8	69
94	Reversal of Bimanual Feedback Responses With Changes in Task Goal. Journal of Neurophysiology, 2009, 101, 283-288.	0.9	17
95	Integration of vision and haptics during tool use. Journal of Vision, 2009, 9, 3-3.	0.1	42
96	Dissociating Variability and Effort as Determinants of Coordination. PLoS Computational Biology, 2009, 5, e1000345.	1.5	94
97	Bimanual coordination as task-dependent linear control policies. Human Movement Science, 2009, 28, 334-347.	0.6	37
98	A probabilistic MR atlas of the human cerebellum. NeuroImage, 2009, 46, 39-46.	2.1	1,128
99	Motor Control: From Joints to Objects and Back. Current Biology, 2008, 18, R532-R533.	1.8	2
100	Neural substrates of visuomotor learning based on improved feedback control and prediction. NeuroImage, 2008, 39, 1383-1395.	2.1	126
101	Reach Adaptation: What Determines Whether We Learn an Internal Model of the Tool or Adapt the Model of Our Arm?. Journal of Neurophysiology, 2008, 100, 1455-1464.	0.9	183
102	Hand Interactions in Rapid Grip Force Adjustments Are Independent of Object Dynamics. Journal of Neurophysiology, 2008, 100, 2738-2745.	0.9	26
103	Obligatory Adaptation of Saccade Gains. Journal of Neurophysiology, 2008, 99, 1554-1558.	0.9	51
104	Active Learning: Learning a Motor Skill Without a Coach. Journal of Neurophysiology, 2008, 100, 879-887.	0.9	36
105	Sensory Prediction Errors Drive Cerebellum-Dependent Adaptation of Reaching. Journal of Neurophysiology, 2007, 98, 54-62.	0.9	749
106	Dissociating Timing and Coordination as Functions of the Cerebellum. Journal of Neuroscience, 2007, 27, 6291-6301.	1.7	111
107	Illusions of Force Perception: The Role of Sensori-Motor Predictions, Visual Information, and Motor Errors. Journal of Neurophysiology, 2007, 97, 3305-3313.	0.9	25
108	Optimal Task-Dependent Changes of Bimanual Feedback Control and Adaptation. Current Biology, 2007, 17, 1675-1679.	1.8	205

#	Article	IF	Citations
109	Ipsilateral corticospinal projections do not predict congenital mirror movements: A case report. Neuropsychologia, 2007, 45, 844-852.	0.7	25
110	Intermanual interactions during initiation and production of rhythmic and discrete movements in individuals lacking a corpus callosum. Experimental Brain Research, 2007, 176, 559-574.	0.7	31
111	A spatially unbiased atlas template of the human cerebellum. NeuroImage, 2006, 33, 127-138.	2.1	792
112	Dissociating Task-set Selection from Task-set Inhibition in the Prefrontal Cortex. Journal of Cognitive Neuroscience, 2006, 18, 14-21.	1.1	76
113	Why Does the Brain Predict Sensory Consequences of Oculomotor Commands? Optimal Integration of the Predicted and the Actual Sensory Feedback. Journal of Neuroscience, 2006, 26, 4188-4197.	1.7	140
114	Cerebellar Involvement in Anticipating the Consequences of Self-Produced Actions During Bimanual Movements. Journal of Neurophysiology, 2005, 93, 801-812.	0.9	132
115	Goal-Selection and Movement-Related Conflict during Bimanual Reaching Movements. Cerebral Cortex, 2005, 16, 1729-1738.	1.6	72
116	Neural Correlates of Reach Errors. Journal of Neuroscience, 2005, 25, 9919-9931.	1.7	550
117	Detecting and adjusting for artifacts in fMRI time series data. NeuroImage, 2005, 27, 624-634.	2.1	252
118	Ipsilateral Motor Cortex Activity During Unimanual Hand Movements Relates to Task Complexity. Journal of Neurophysiology, 2005, 93, 1209-1222.	0.9	395
119	Effects of focal basal ganglia lesions on timing and force control. Brain and Cognition, 2005, 58, 62-74.	0.8	64
120	Hugo Liepmann revisited, this time with numbers. Journal of Neurophysiology, 2004, 91, 2934-2935.	0.9	4
121	Independent on-line control of the two hands during bimanual reaching. European Journal of Neuroscience, 2004, 19, 1643-1652.	1.2	75
122	Immediate spatial distortions of pointing movements induced by visual landmarks. Perception & Psychophysics, 2004, 66, 89-103.	2.3	56
123	Spatial distortions induced by multiple visual landmarks: How local distortions combine to produce complex distortion patterns. Perception & Psychophysics, 2003, 65, 861-873.	2.3	28
124	Anticipatory adjustments in the unloading task: Is an efference copy necessary for learning?. Experimental Brain Research, 2003, 148, 272-276.	0.7	72
125	Bimanual cross-talk during reaching movements is primarily related to response selection, not the specification of motor parameters. Psychological Research, 2003, 67, 56-70.	1.0	59
126	Disrupted Timing of Discontinuous But Not Continuous Movements by Cerebellar Lesions. Science, 2003, 300, 1437-1439.	6.0	427

#	Article	IF	Citations
127	Bimanual interference associated with the selection of target locations.. Journal of Experimental Psychology: Human Perception and Performance, 2003, 29, 64-77.	0.7	48
128	The Role of the Corpus Callosum in the Coupling of Bimanual Isometric Force Pulses. Journal of Neurophysiology, 2003, 90, 2409-2418.	0.9	73
129	Bimanual interference associated with the selection of target locations. Journal of Experimental Psychology: Human Perception and Performance, 2003, 29, 64-77.	0.7	35
130	Callosotomy patients exhibit temporal uncoupling during continuous bimanual movements. Nature Neuroscience, 2002, 5, 376-381.	7.1	198
131	The Cerebellum and Event Timing. Annals of the New York Academy of Sciences, 2002, 978, 302-317.	1.8	404
132	Comparing Continuous and Discrete Movements with fMRI. Annals of the New York Academy of Sciences, 2002, 978, 509-510.	1.8	5
133	Does the Cerebellum Preferentially Control Discrete and Not Continuous Movements?. Annals of the New York Academy of Sciences, 2002, 978, 542-544.	1.8	2
134	The time course of spatial memory distortions. Memory and Cognition, 2002, 30, 718-730.	0.9	64
135	Illusory conjunctions are alive and well: A reply to Donk (1999).. Journal of Experimental Psychology: Human Perception and Performance, 2001, 27, 538-541.	0.7	10
136	Illusory conjunctions are alive and well: a reply to Donk (1999). Journal of Experimental Psychology: Human Perception and Performance, 2001, 27, 538-41.	0.7	13