John W Krakauer

List of Publications by Year
in descending order

109 papers	22,714 citations	14614 66 h-index	28224 105 g-index
126 all docs	126 docs citations	126 times ranked	14049 citing authors

#	Article	IF	Citations
1	Radiation-induced intracranial vasculitis on high-resolution vessel wall MRI. Journal of Neurology, 2022, 269, 483-485.	1.8	3
2	Answer ALS, a large-scale resource for sporadic and familial ALS combining clinical and multi-omics data from induced pluripotent cell lines. Nature Neuroscience, 2022, 25, 226-237.	7.1	66
3	Competition between parallel sensorimotor learning systems. ELife, 2022, 11, .	2.8	44
4	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
5	The relationship between habits and motor skills in humans. Trends in Cognitive Sciences, 2022, 26, 371-387.	4.0	29
6	The explicit/implicit distinction in studies of visuomotor learning: Conceptual and methodological pitfalls. European Journal of Neuroscience, 2021, 53, 499-503.	1.2	24
7	Did We Get Sensorimotor Adaptation Wrong? Implicit Adaptation as Direct Policy Updating Rather than Forward-Model-Based Learning. Journal of Neuroscience, 2021, 41, 2747-2761.	1.7	50
8	The Neurocene: essays at the interface of neuroscience and the world. Journal of Neurophysiology, 2021, 125, 522-522.	0.9	0
9	Two views on the cognitive brain. Nature Reviews Neuroscience, 2021, 22, 359-371.	4.9	92
10	The Learning Salon: Toward a new participatory science. Neuron, 2021, 109, 3036-3040.	3.8	1
11	The continued need for scientific monographs: an appreciation of John Rothwellâ€™s â€œControl of human voluntary movementâ€. Experimental Brain Research, 2020, 238, 1715-1717.	0.7	0
12	Postural control of arm and fingers through integration of movement commands. ELife, 2020, 9, .	2.8	34
13	Practice induces a qualitative change in the memory representation for visuomotor learning. Journal of Neurophysiology, 2019, 122, 1050-1059.	0.9	58
14	Why Are Sequence Representations in Primary Motor Cortex So Elusive?. Neuron, 2019, 103, 956-958.	3.8	24
15	Can patients with cerebellar disease switch learning mechanisms to reduce their adaptation deficits?. Brain, 2019, 142, 662-673.	3.7	48
16	The intelligent reflex. Philosophical Psychology, 2019, 32, 822-830.	0.5	13
17	Differential Poststroke Motor Recovery in an Arm Versus Hand Muscle in the Absence of Motor Evoked Potentials. Neurorehabilitation and Neural Repair, 2019, 33, 568-580.	1.4	32
18	Motor Learning. , 2019, 9, 613-663.		393

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19	Rethinking interhemispheric imbalance as a target for stroke neurorehabilitation. Annals of Neurology, 2019, 85, 502-513.	2.8	85
20	Time-dependent competition between goal-directed and habitual response preparation. Nature Human Behaviour, 2019, 3, 1252-1262.	6.2	107
21	Reply: Further evidence for a non-cortical origin of mirror movements after stroke. Brain, 2019, 142, e2-e2.	3.7	0
22	The multiple effects of practice: skill, habit and reduced cognitive load. Current Opinion in Behavioral Sciences, 2018, 20, 196-201.	2.0	102
23	Evidence for a subcortical origin of mirror movements after stroke: a longitudinal study. Brain, 2018, 141, 837-847.	3.7	47
24	Modeling Motor Learning Using Heteroscedastic Functional Principal Components Analysis. Journal of the American Statistical Association, 2018, 113, 1003-1015.	1.8	14
25	A non-task-oriented approach based on high-dose playful movement exploration for rehabilitation of the upper limb early after stroke: A proposal. NeuroRehabilitation, 2018, 43, 31-40.	0.5	33
26	Neuroscience Needs Behavior: Correcting a Reductionist Bias. Neuron, 2017, 93, 480-490.	3.8	953
27	Separable systems for recovery of finger strength and control after stroke. Journal of Neurophysiology, 2017, 118, 1151-1163.	0.9	94
28	A Short and Distinct Time Window for Recovery of Arm Motor Control Early After Stroke Revealed With a Global Measure of Trajectory Kinematics. Neurorehabilitation and Neural Repair, 2017, 31, 552-560.	1.4	82
29	Standardized Measurement of Sensorimotor Recovery in Stroke Trials: Consensus-Based Core Recommendations from the Stroke Recovery and Rehabilitation Roundtable. Neurorehabilitation and Neural Repair, 2017, 31, 784-792.	1.4	135
30	Agreed Definitions and a Shared Vision for New Standards in Stroke Recovery Research: The Stroke Recovery and Rehabilitation Roundtable Taskforce. Neurorehabilitation and Neural Repair, 2017, 31, 793-799.	1.4	225
31	Agreed definitions and a shared vision for new standards in stroke recovery research: The Stroke Recovery and Rehabilitation Roundtable taskforce. International Journal of Stroke, 2017, 12, 444-450.	2.9	624
32	Standardized measurement of sensorimotor recovery in stroke trials: Consensus-based core recommendations from the Stroke Recovery and Rehabilitation Roundtable. International Journal of Stroke, 2017, 12, 451-461.	2.9	352
33	The cerebellum does more than sensory prediction error-based learning in sensorimotor adaptation tasks. Journal of Neurophysiology, 2017, 118, 1622-1636.	0.9	91
34	Motor Learning in Stroke. Neurorehabilitation and Neural Repair, 2017, 31, 178-189.	1.4	53
35	In search of the golden skill. Progress in Brain Research, 2017, 232, 145-148.	0.9	2
36	Reaction times can reflect habits rather than computations. ELife, 2017, 6, .	2.8	45

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37	Computational neurorehabilitation: modeling plasticity and learning to predict recovery. Journal of NeuroEngineering and Rehabilitation, 2016, 13, 42.	2.4	125
38	A motor planning stage represents the shape of upcoming movement trajectories. Journal of Neurophysiology, 2016, 116, 296-305.	0.9	33
39	The basal ganglia: from motor commands to the control of vigor. Current Opinion in Neurobiology, 2016, 37, 158-166.	2.0	203
40	Independence of Movement Preparation and Movement Initiation. Journal of Neuroscience, 2016, 36, 3007-3015.	1.7	173
41	Paradoxical Motor Recovery From a First Stroke After Induction of a Second Stroke. Neurorehabilitation and Neural Repair, 2016, 30, 794-800.	1.4	69
42	Explicit knowledge enhances motor vigor and performance: motivation versus practice in sequence tasks. Journal of Neurophysiology, 2015, 114, 219-232.	0.9	57
43	The reliability of repeated TMS measures in older adults and in patients with subacute and chronic stroke. Frontiers in Cellular Neuroscience, 2015, 9, 335.	1.8	104
44	On tests of activation map dimensionality for fMRI-based studies of learning. Frontiers in Neuroscience, 2015, 9, 85.	1.4	1
45	The uses and interpretations of the motor-evoked potential for understanding behaviour. Experimental Brain Research, 2015, 233, 679-689.	0.7	260
46	Persistent Residual Errors in Motor Adaptation Tasks: Reversion to Baseline and Exploratory Escape. Journal of Neuroscience, 2015, 35, 6969-6977.	1.7	66
47	The Influence of Movement Preparation Time on the Expression of Visuomotor Learning and Savings. Journal of Neuroscience, 2015, 35, 5109-5117.	1.7	199
48	Hedging Your Bets: Intermediate Movements as Optimal Behavior in the Context of an Incomplete Decision. PLoS Computational Biology, 2015, 11, e1004171.	1.5	64
49	Dual-process decomposition in human sensorimotor adaptation. Current Opinion in Neurobiology, 2015, 33, 71-77.	2.0	134
50	Robotic therapy for chronic stroke: general recovery of impairment or improved task-specific skill?. Journal of Neurophysiology, 2015, 114, 1885-1894.	0.9	47
51	Formation of a long-term memory for visuomotor adaptation following only a few trials of practice. Journal of Neurophysiology, 2015, 114, 969-977.	0.9	95
52	Fluoxetine Maintains a State of Heightened Responsiveness to Motor Training Early After Stroke in a Mouse Model. Stroke, 2015, 46, 2951-2960.	1.0	75
53	Motor Planning. Neuroscientist, 2015, 21, 385-398.	2.6	181
54	Recent insights into perceptual and motor skill learning. Frontiers in Human Neuroscience, 2014, 8, 683.	1.0	11

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55	Explicit and Implicit Contributions to Learning in a Sensorimotor Adaptation Task. Journal of Neuroscience, 2014, 34, 3023-3032.	1.7	606
56	The Future of Stroke Treatment. JAMA Neurology, 2014, 71, 1473.	4.5	6
57	A Comparison of Two Methods for MRI Classification of At-Risk Tissue and Core Infarction. Frontiers in Neurology, 2014, 5, 155.	1.1	3
58	The neural correlates of learned motor acuity. Journal of Neurophysiology, 2014, 112, 971-980.	0.9	58
59	Pretreatment Bloodâ€"Brain Barrier Damage and Post-Treatment Intracranial Hemorrhage in Patients Receiving Intravenous Tissue-Type Plasminogen Activator. Stroke, 2014, 45, 2030-2035.	1.0	73
60	Motor Learning: The Great Rate Debate. Current Biology, 2014, 24, R386-R388.	1.8	9
61	Motor learning principles for neurorehabilitation. Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn, 2013, 110, 93-103.	1.0	255
62	Model-Based and Model-Free Mechanisms of Human Motor Learning. Advances in Experimental Medicine and Biology, 2013, 782, 1-21.	0.8	194
63	Two Distinct Ipsilateral Cortical Representations for Individuated Finger Movements. Cerebral Cortex, 2013, 23, 1362-1377.	1.6	155
64	Improvement After Constraint-Induced Movement Therapy. Neurorehabilitation and Neural Repair, 2013, 27, 99-109.	1.4	144
65	Medial Premotor Cortex Shows a Reduction in Inhibitory Markers and Mediates Recovery in a Mouse Model of Focal Stroke. Stroke, 2013, 44, 483-489.	1.0	81
66	Unlearning versus savings in visuomotor adaptation: comparing effects of washout, passage of time, and removal of errors on motor memory. Frontiers in Human Neuroscience, 2013, 7, 307.	1.0	95
67	Motor skill depends on knowledge of facts. Frontiers in Human Neuroscience, 2013, 7, 503.	1.0	122
68	How is a motor skill learned? Change and invariance at the levels of task success and trajectory control. Journal of Neurophysiology, 2012, 108, 578-594.	0.9	347
69	Overcoming Motor â€œForgettingâ€• Through Reinforcement Of Learned Actions. Journal of Neuroscience, 2012, 32, 14617-14621a.	1.7	166
70	Generalization and Multirate Models of Motor Adaptation. Neural Computation, 2012, 24, 939-966.	1.3	41
71	Getting Neurorehabilitation Right. Neurorehabilitation and Neural Repair, 2012, 26, 923-931.	1.4	473
72	Rethinking Motor Learning and Savings in Adaptation Paradigms: Model-Free Memory for Successful Actions Combines with Internal Models. Neuron, 2011, 70, 787-801.	3.8	400

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73	Are We Ready for a Natural History of Motor Learning?. Neuron, 2011, 72, 469-476.	3.8	154
74	Human sensorimotor learning: adaptation, skill, and beyond. Current Opinion in Neurobiology, 2011, 21, 636-644.	2.0	425
75	Probing for hemispheric specialization for motor skill learning: a transcranial direct current stimulation study. Journal of Neurophysiology, 2011, 106, 652-661.	0.9	127
76	Prediction of Motor Recovery Using Initial Impairment and fMRI 48 h Poststroke. Cerebral Cortex, 2011, 21, 2712-2721.	1.6	122
77	Compensatory Motor Control After Stroke: An Alternative Joint Strategy for Object-Dependent Shaping of Hand Posture. Journal of Neurophysiology, 2010, 103, 3034-3043.	0.9	84
78	Learning Not to Generalize: Modular Adaptation of Visuomotor Gain. Journal of Neurophysiology, 2010, 103, 2938-2952.	0.9	39
79	Improvement in Aphasia Scores After Stroke Is Well Predicted by Initial Severity. Stroke, 2010, 41, 1485-1488.	1.0	251
80	Error Correction, Sensory Prediction, and Adaptation in Motor Control. Annual Review of Neuroscience, 2010, 33, 89-108.	5.0	1,435
81	Adaptation to Visuomotor Rotation Through Interaction Between Posterior Parietal and Motor Cortical Areas. Journal of Neurophysiology, 2009, 102, 2921-2932.	0.9	145
82	Noninvasive cortical stimulation enhances motor skill acquisition over multiple days through an effect on consolidation. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 1590-1595.	3.3	1,168
83	Motor Learning and Consolidation: The Case of Visuomotor Rotation. Advances in Experimental Medicine and Biology, 2009, 629, 405-421.	0.8	240
84	Inside the brain of an elite athlete: the neural processes that support high achievement in sports. Nature Reviews Neuroscience, 2009, 10, 585-596.	4.9	426
85	Learning of a Sequential Motor Skill Comprises Explicit and Implicit Components That Consolidate Differently. Journal of Neurophysiology, 2009, 101, 2218-2229.	0.9	119
86	A computational neuroanatomy for motor control. Experimental Brain Research, 2008, 185, 359-381.	0.7	983
87	Consensus: Can transcranial direct current stimulation and transcranial magnetic stimulation enhance motor learning and memory formation?. Brain Stimulation, 2008, 1, 363-369.	0.7	225
88	Inter-individual Variability in the Capacity for Motor Recovery After Ischemic Stroke. Neurorehabilitation and Neural Repair, 2008, 22, 64-71.	1.4	432
89	Explaining Savings for Visuomotor Adaptation: Linear Time-Invariant State-Space Models Are Not Sufficient. Journal of Neurophysiology, 2008, 100, 2537-2548.	0.9	125
90	Why Don't We Move Faster? Parkinson's Disease, Movement Vigor, and Implicit Motivation. Journal of Neuroscience, 2007, 27, 7105-7116.	1.7	488

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91	Towards a computational neuropsychology of action. Progress in Brain Research, 2007, 165, 383-394.	0.9	24
92	Sensory Prediction Errors Drive Cerebellum-Dependent Adaptation of Reaching. Journal of Neurophysiology, 2007, 98, 54-62.	0.9	749
93	Avoiding performance and task confounds: Multimodal investigation of brain reorganization after stroke rehabilitation. Experimental Neurology, 2007, 204, 491-495.	2.0	18
94	An Implicit Plan Overrides an Explicit Strategy during Visuomotor Adaptation. Journal of Neuroscience, 2006, 26, 3642-3645.	1.7	692
95	Consolidation of motor memory. Trends in Neurosciences, 2006, 29, 58-64.	4.2	393
96	Patterns of Impairment in Digit Independence After Subcortical Stroke. Journal of Neurophysiology, 2006, 95, 369-378.	0.9	72
97	An Optimization Principle for Determining Movement Duration. Journal of Neurophysiology, 2006, 95, 3875-3886.	0.9	119
98	Motor learning: its relevance to stroke recovery and neurorehabilitation. Current Opinion in Neurology, 2006, 19, 84-90.	1.8	948
99	Impaired anticipatory control of fingertip forces in patients with a pure motor or sensorimotor lacunar syndrome. Brain, 2006, 129, 1415-1425.	3.7	106
100	Generalization of Motor Learning Depends on the History of Prior Action. PLoS Biology, 2006, 4, e316.	2.6	186
101	A New Approach to Spatial Covariance Modeling of Functional Brain Imaging Data: Ordinal Trend Analysis. Neural Computation, 2005, 17, 1602-1645.	1.3	109
102	Arm Function after Stroke: From Physiology to Recovery. Seminars in Neurology, 2005, 25, 384-395.	0.5	166
103	Adaptation to Visuomotor Transformations: Consolidation, Interference, and Forgetting. Journal of Neuroscience, 2005, 25, 473-478.	1.7	416
104	Functional imaging of motor recovery after stroke: Remaining challenges. Current Neurology and Neuroscience Reports, 2004, 4, 42-46.	2.0	21
105	Differential Cortical and Subcortical Activations in Learning Rotations and Gains for Reaching: A PET Study. Journal of Neurophysiology, 2004, 91, 924-933.	0.9	215
106	Learning of Visuomotor Transformations for Vectorial Planning of Reaching Trajectories. Journal of Neuroscience, 2000, 20, 8916-8924.	1.7	746
107	Evolution of Cortical Activation During Recovery From Corticospinal Tract Infarction. Stroke, 2000, 31, 656-661.	1.0	580
108	Independent learning of internal models for kinematic and dynamic control of reaching. Nature Neuroscience, 1999, 2, 1026-1031.	7.1	774

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109	Learning of scaling factors and reference axes for reaching movements. NeuroReport, 1996, 7, 2357-2362.	0.6	144