J Randall Flanagan

List of Publications by Year
in descending order

107 papers	12,887 citations	38742 50 h-index	27406 106 g-index
124 all docs	124 docs citations	124 times ranked	7766 citing authors

#	Article	IF	Citations
1	Human variation in error-based and reinforcement motor learning is associated with entorhinal volume. Cerebral Cortex, 2022, 32, 3423-3440.	2.9	7
2	Neural excursions from manifold structure explain patterns of learning during human sensorimotor adaptation. ELife, 2022, 11, .	6.0	11
3	Reach adaption to a visuomotor gain with terminal error feedback involves reinforcement learning. PLoS ONE, 2022, 17, e0269297.	2.5	0
4	Motor Planning Modulates Neural Activity Patterns in Early Human Auditory Cortex. Cerebral Cortex, 2021, 31, 2952-2967.	2.9	14
5	Functional Use of Eye Movements for an Acting System. Trends in Cognitive Sciences, 2021, 25, 252-263.	7.8	36
6	Human Somatosensory Cortex Is Modulated during Motor Planning. Journal of Neuroscience, 2021, 41, 5909-5922.	3.6	34
7	Motor memories of object dynamics are categorically organized. ELife, 2021, 10, .	6.0	11
8	Motor memories in manipulation tasks are linked to contact goals between objects. Journal of Neurophysiology, 2020, 124, 994-1004.	1.8	4
9	Human decision making anticipates future performance in motor learning. PLoS Computational Biology, 2020, 16, e1007632.	3.2	10
10	Selective Modulation of Early Visual Cortical Activity by Movement Intention. Cerebral Cortex, 2019, 29, 4662-4678.	2.9	43
11	Correcting for natural visuo-proprioceptive matching errors based on reward as opposed to error feedback does not lead to higher retention. Experimental Brain Research, 2019, 237, 735-741.	1.5	9
12	Gaze behavior during visuomotor tracking with complex hand-cursor dynamics. Journal of Vision, 2019, 19, 24.	0.3	4
13	Separate motor memories are formed when controlling different implicitly specified locations on a tool. Journal of Neurophysiology, 2019, 121, 1342-1351.	1.8	4
14	Multiple motor memories are learned to control different points on a tool. Nature Human Behaviour, 2018, 2, 300-311.	12.0	47
15	Visuomotor feedback gains are modulated by gaze position. Journal of Neurophysiology, 2018, 120, 2522-2531.	1.8	17
16	Using gaze behavior to parcellate the explicit and implicit contributions to visuomotor learning. Journal of Neurophysiology, 2018, 120, 1602-1615.	1.8	48
17	Different gaze strategies during eye versus hand tracking of a moving target. Scientific Reports, 2018, 8, 10059.	3.3	32
18	Decision-making in sensorimotor control. Nature Reviews Neuroscience, 2018, 19, 519-534.	10.2	183

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19	Fast and accurate edge orientation processing during object manipulation. ELife, 2018, 7, .	6.0	48
20	Rapid Automatic Motor Encoding of Competing Reach Options. Cell Reports, 2017, 18, 1619-1626.	6.4	36
21	Linking actions and objects: Context-specific learning of novel weight priors. Cognition, 2017, 163, 121-127.	2.2	9
22	Grip force when reaching with target uncertainty provides evidence for motor optimization over averaging. Scientific Reports, 2017, 7, 11703.	3.3	21
23	Rapid target foraging with reach or gaze: The hand looks further ahead than the eye. PLoS Computational Biology, 2017, 13, e1005504.	3.2	28
24	An error-tuned model for sensorimotor learning. PLoS Computational Biology, 2017, 13, e1005883.	3.2	11
25	Parallel Specification of Visuomotor Feedback Gains during Bimanual Reaching to Independent Goals. ENeuro, 2017, 4, ENEURO.0026-17.2017.	1.9	14
26	Eye Tracking of Occluded Self-Moved Targets: Role of Haptic Feedback and Hand-Target Dynamics. ENeuro, 2017, 4, ENEURO.0101-17.2017.	1.9	6
27	Eye-hand coordination during visuomotor tracking under complex hand-cursor mapping. Journal of Vision, 2017, 17, 278.	0.3	0
28	Distinct contributions of explicit and implicit memory processes to weight prediction when lifting objects and judging their weights: an aging study. Journal of Neurophysiology, 2016, 116, 1128-1136.	1.8	9
29	Representing multiple object weights: competing priors and sensorimotor memories. Journal of Neurophysiology, 2016, 116, 1615-1625.	1.8	10
30	The sequential encoding of competing action goals involves dynamic restructuring of motor plans in working memory. Journal of Neurophysiology, 2016, 115, 3113-3122.	1.8	34
31	A Rapid Tactile-Motor Reflex Automatically Guides Reaching toward Handheld Objects. Current Biology, 2016, 26, 788-792.	3.9	65
32	Parallel specification of competing sensorimotor control policies for alternative action options. Nature Neuroscience, 2016, 19, 320-326.	14.8	102
33	Computations underlying sensorimotor learning. Current Opinion in Neurobiology, 2016, 37, 7-11.	4.2	86
34	Planning Ahead: Object-Directed Sequential Actions Decoded from Human Frontoparietal and Occipitotemporal Networks. Cerebral Cortex, 2015, 26, bhu302.	2.9	51
35	Integrating actions into object location memory: A benefit for active versus passive reaching movements. Behavioural Brain Research, 2015, 279, 234-239.	2.2	22
36	Action plan co-optimization reveals the parallel encoding of competing reach movements. Nature Communications, 2015, 6, 7428.	12.8	67

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37	Functional subdivisions of medial parieto-occipital cortex in humans and nonhuman primates using resting-state fMRI. NeuroImage, 2015, 116, 10-29.	4.2	48
38	Rapid Visuomotor Corrective Responses during Transport of Hand-Held Objects Incorporate Novel Object Dynamics. Journal of Neuroscience, 2015, 35, 10572-10580.	3.6	27
39	Gaze behavior when learning to link sequential action phases in a manual task. Journal of Vision, 2014, 14, 3-3.	0.3	22
40	Control and Prediction Components of Movement Planning in Stuttering Versus Nonstuttering Adults. Journal of Speech, Language, and Hearing Research, 2014, 57, 2131-2141.	1.6	18
41	Fast But Fleeting: Adaptive Motor Learning Processes Associated with Aging and Cognitive Decline. Journal of Neuroscience, 2014, 34, 13411-13421.	3.6	84
42	Distinct and distributed functional connectivity patterns across cortex reflect the domain-specific constraints of object, face, scene, body, and tool category-selective modules in the ventral visual pathway. NeuroImage, 2014, 96, 216-236.	4.2	88
43	Motor learning of novel dynamics is not represented in a single global coordinate system: evaluation of mixed coordinate representations and local learning. Journal of Neurophysiology, 2014, 111, 1165-1182.	1.8	74
44	Representation of Object Weight in Human Ventral Visual Cortex. Current Biology, 2014, 24, 1866-1873.	3.9	102
45	Motor, not visual, encoding of potential reach targets. Current Biology, 2014, 24, R953-R954.	3.9	45
46	Adaptation of lift forces in object manipulation through action observation. Experimental Brain Research, 2013, 228, 221-234.	1.5	24
47	Context-Dependent Decay of Motor Memories during Skill Acquisition. Current Biology, 2013, 23, 1107-1112.	3.9	36
48	Where One Hand Meets the Other: Limb-Specific and Action-Dependent Movement Plans Decoded from Preparatory Signals in Single Human Frontoparietal Brain Areas. Journal of Neuroscience, 2013, 33, 1991-2008.	3.6	144
49	Activity patterns in the categoryâ€selective occipitotemporal cortex predict upcoming motor actions. European Journal of Neuroscience, 2013, 38, 2408-2424.	2.6	65
50	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.	4.0	19
51	Skill learning involves optimizing the linking of action phases. Journal of Neurophysiology, 2013, 110, 1291-1300.	1.8	14
52	Separate Contributions of Kinematic and Kinetic Errors to Trajectory and Grip Force Adaptation When Transporting Novel Hand-Held Loads. Journal of Neuroscience, 2013, 33, 2229-2236.	3.6	33
53	Simultaneous encoding of the direction and orientation of potential targets during reach planning: evidence of multiple competing reach plans. Journal of Neurophysiology, 2013, 110, 807-816.	1.8	35
54	Material evidence: interaction of well-learned priors and sensorimotor memory when lifting objects. Journal of Neurophysiology, 2012, 108, 1262-1269.	1.8	95

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55	The role of haptic feedback when manipulating nonrigid objects. Journal of Neurophysiology, 2012, 107, 433-441.	1.8	29
56	Hand-held tools with complex kinematics are efficiently incorporated into movement planning and online control. Journal of Neurophysiology, 2012, 108, 1954-1964.	1.8	12
57	Principles of sensorimotor learning. Nature Reviews Neuroscience, 2011, 12, 739-751.	10.2	1,161
58	Relation between reaction time and reach errors during visuomotor adaptation. Behavioural Brain Research, 2011, 219, 8-14.	2.2	155
59	A Single-Rate Context-Dependent Learning Process Underlies Rapid Adaptation to Familiar Object Dynamics. PLoS Computational Biology, 2011, 7, e1002196.	3.2	35
60	Multiple Grasp-Specific Representations of Tool Dynamics Mediate Skillful Manipulation. Current Biology, 2010, 20, 618-623.	3.9	65
61	Motor learning. Current Biology, 2010, 20, R467-R472.	3.9	94
62	Conceptual change and preschoolersâ€™ theory of mind: Evidence from loadâ€“force adaptation. Neural Networks, 2010, 23, 1043-1050.	5.9	14
63	Q&A: Robotics as a tool to understand the brain. BMC Biology, 2010, 8, 92.	3.8	19
64	Stimulusâ€locked responses on human arm muscles reveal a rapid neural pathway linking visual input to arm motor output. European Journal of Neuroscience, 2010, 32, 1049-1057.	2.6	96
65	Eyeâ€“hand coordination in a sequential target contact task. Experimental Brain Research, 2009, 195, 273-283.	1.5	71
66	Coding and use of tactile signals from the fingertips in object manipulation tasks. Nature Reviews Neuroscience, 2009, 10, 345-359.	10.2	1,519
67	The intermanual transfer of anticipatory force control in precision grip lifting is not influenced by the perception of weight. Experimental Brain Research, 2008, 185, 319-329.	1.5	45
68	Flexible Representations of Dynamics Are Used in Object Manipulation. Current Biology, 2008, 18, 763-768.	3.9	56
69	Experience Can Change Distinct Size-Weight Priors Engaged in Lifting Objects and Judging their Weights. Current Biology, 2008, 18, 1742-1747.	3.9	160
70	Gaze Behavior When Reaching to Remembered Targets. Journal of Neurophysiology, 2008, 100, 1533-1543.	1.8	32
71	Sensorimotor memory of weight asymmetry in object manipulation. Experimental Brain Research, 2007, 184, 127-133.	1.5	31
72	Control strategies in object manipulation tasks. Current Opinion in Neurobiology, 2006, 16, 650-659.	4.2	381

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73	Neural Correlates of Internal-Model Loading. Current Biology, 2006, 16, 2440-2445.	3.9	63
74	Attenuation of Self-Generated Tactile Sensations Is Predictive, not Postdictive. PLoS Biology, 2006, 4, e28.	5.6	170
75	Eye Movements When Observing Predictable and Unpredictable Actions. Journal of Neurophysiology, 2006, 96, 1358-1369.	1.8	76
76	Perception of the Consequences of Self-Action Is Temporally Tuned and Event Driven. Current Biology, 2005, 15, 1125-1128.	3.9	193
77	Learning and recall of incremental kinematic and dynamic sensorimotor transformations. Experimental Brain Research, 2005, 164, 250-259.	1.5	123
78	Interference between velocity-dependent and position-dependent force-fields indicates that tasks depending on different kinematic parameters compete for motor working memory. Experimental Brain Research, 2005, 163, 400-405.	1.5	38
79	Eye-Hand Coordination during Learning of a Novel Visuomotor Task. Journal of Neuroscience, 2005, 25, 8833-8842.	3.6	230
80	Common Encoding of Novel Dynamic Loads Applied to the Hand and Arm. Journal of Neuroscience, 2005, 25, 5425-5429.	3.6	20
81	Failure to Consolidate the Consolidation Theory of Learning for Sensorimotor Adaptation Tasks. Journal of Neuroscience, 2004, 24, 8662-8671.	3.6	232
82	Prediction Precedes Control in Motor Learning. Current Biology, 2003, 13, 146-150.	3.9	375
83	Action plans used in action observation. Nature, 2003, 424, 769-771.	27.8	603
84	Task-Specific Internal Models for Kinematic Transformations. Journal of Neurophysiology, 2003, 90, 578-585.	1.8	64
85	Visuomotor rotations of varying size and direction compete for a single internal model in a motor working memory.. Journal of Experimental Psychology: Human Perception and Performance, 2002, 28, 447-457.	0.9	96
86	Kinematics and Dynamics Are Not Represented Independently in Motor Working Memory: Evidence from an Interference Study. Journal of Neuroscience, 2002, 22, 1108-1113.	3.6	180
87	Engagement of Gaze in Capturing Targets for Future Sequential Manual Actions. Journal of Neurophysiology, 2002, 88, 1716-1725.	1.8	25
88	Visuomotor rotations of varying size and direction compete for a single internal model in a motor working memory.. Journal of Experimental Psychology: Human Perception and Performance, 2002, 28, 447-457.	0.9	74
89	Perspectives and problems in motor learning. Trends in Cognitive Sciences, 2001, 5, 487-494.	7.8	667
90	The Inertial Anisotropy of the Arm Is Accurately Predicted during Movement Planning. Journal of Neuroscience, 2001, 21, 1361-1369.	3.6	95

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91	Sensorimotor prediction and memory in object manipulation.. Canadian Journal of Experimental Psychology, 2001, 55, 87-95.	0.8	132
92	Eyeâ€"Hand Coordination in Object Manipulation. Journal of Neuroscience, 2001, 21, 6917-6932.	3.6	724
93	Feeling bumps and holes. Nature, 2001, 412, 389-391.	27.8	26
94	Independence of perceptual and sensorimotor predictions in the sizeâ€"weight illusion. Nature Neuroscience, 2000, 3, 737-741.	14.8	449
95	Coming to grips with weight perception: Effects of grasp configuration on perceived heaviness. Perception & Psychophysics, 2000, 62, 1204-1219.	2.3	62
96	Control of Grasp Stability in Humans Under Different Frictional Conditions During Multidigit Manipulation. Journal of Neurophysiology, 1999, 82, 2393-2405.	1.8	137
97	Control of Fingertip Forces in Multidigit Manipulation. Journal of Neurophysiology, 1999, 81, 1706-1717.	1.8	136
98	Composition and Decomposition of Internal Models in Motor Learning under Altered Kinematic and Dynamic Environments. Journal of Neuroscience, 1999, 19, RC34-RC34.	3.6	158
99	The influence of visual illusions on grasp position. Experimental Brain Research, 1999, 125, 109-114.	1.5	98
100	The Role of Internal Models in Motion Planning and Control: Evidence from Grip Force Adjustments during Movements of Hand-Held Loads. Journal of Neuroscience, 1997, 17, 1519-1528.	3.6	607
101	Tangential Torque Effects on the Control of Grip Forces When Holding Objects With a Precision Grip. Journal of Neurophysiology, 1997, 78, 1619-1630.	1.8	142
102	Effects of surface texture and grip force on the discrimination of hand-held loads. Perception & Psychophysics, 1997, 59, 111-118.	2.3	57
103	Anticipatory postural adjustments in stance and grip. Experimental Brain Research, 1997, 116, 122-130.	1.5	73
104	Grip force adjustments during rapid hand movements suggest that detailed movement kinematics are predicted. Behavioral and Brain Sciences, 1995, 18, 753-754.	0.7	17
105	Effects of surface texture on weight perception when lifting objects with a precision grip. Perception & Psychophysics, 1995, 57, 282-290.	2.3	84
106	Modulation of grip force with load force during point-to-point arm movements. Experimental Brain Research, 1993, 95, 131-43.	1.5	349
107	Control of Trajectory Modifications in Target-Directed Reaching. Journal of Motor Behavior, 1993, 25, 140-152.	0.9	211