Mark Shelhamer

List of Publications by Year
in descending order

71 papers	1,260 citations	394421 19 h-index	434195 31 g-index
73 all docs	73 docs citations	73 times ranked	915 citing authors

#	Article	IF	Citations
1	The dynamics of parabolic flight: Flight characteristics and passenger percepts. Acta Astronautica, 2008, 63, 594-602.	3.2	85
2	Incremental angular vestibulo-ocular reflex adaptation to active head rotation. Experimental Brain Research, 2008, 191, 435-446.	1.5	84
3	Sensorimotor adaptation error signals are derived from realistic predictions of movement outcomes. Journal of Neurophysiology, 2011, 105, 1130-1140.	1.8	75
4	Short-term vestibulo-ocular reflex adaptation in humans. Experimental Brain Research, 1994, 100, 328-36.	1.5	72
5	Saccades Exhibit Abrupt Transition Between Reactive and Predictive, Predictive Saccade Sequences Have Long-Term Correlations. Journal of Neurophysiology, 2003, 90, 2763-2769.	1.8	63
6	Context-specific adaptation of saccade gain. Experimental Brain Research, 2002, 146, 441-450.	1.5	51
7	Parabolic flight as a spaceflight analog. Journal of Applied Physiology, 2016, 120, 1442-1448.	2.5	49
8	Recurrence matrices and the preservation of dynamical properties. Physics Letters, Section A: General, Atomic and Solid State Physics, 1997, 237, 43-47.	2.1	46
9	Short-term vestibulo-ocular reflex adaptation in humans. Experimental Brain Research, 1994, 100, 316-27.	1.5	42
10	Short-term adaptation of the phase of the vestibulo-ocular reflex (VOR) in normal human subjects. Experimental Brain Research, 1995, 106, 318-26.	1.5	29
11	Saccade adaptation improves in response to a gradually introduced stimulus perturbation. Neuroscience Letters, 2011, 500, 207-211.	2.1	29
12	Sensory, motor, and combined contexts for context-specific adaptation of saccade gain in humans. Neuroscience Letters, 2002, 332, 200-204.	2.1	27
13	An internal clock generates repetitive predictive saccades. Experimental Brain Research, 2006, 175, 305-320.	1.5	27
14	Context-specific short-term adaptation of the phase of the vestibulo-ocular reflex. Experimental Brain Research, 1998, 120, 184-192.	1.5	22
15	On the correlation dimension of optokinetic nystagmus eye movements: computational parameters, filtering, nonstationarity, and surrogate data. Biological Cybernetics, 1997, 76, 237-250.	1.3	21
16	Shortâ€Term Adaptation of the VOR: Nonâ€Retinalâ€Slip Error Signals and Saccade Substitution. Annals of the New York Academy of Sciences, 2003, 1004, 94-110.	3.8	21
17	Pursuit and saccadic tracking exhibit a similar dependence on movement preparation time. Experimental Brain Research, 2006, 173, 572-586.	1.5	20
18	Trends in sensorimotor research and countermeasures for exploration-class space flights. Frontiers in Systems Neuroscience, 2015, 9, 115.	2.5	20

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19	Selected discoveries from human research in space that are relevant to human health on Earth. Npj Microgravity, 2020, 6, 5.	3.7	20
20	Context-specific adaptation and its significance for neurovestibular problems of space flight. Journal of Vestibular Research: Equilibrium and Orientation, 2003, 13, 345-362.	2.0	20
21	Context-Specific Adaptation of Saccade Gain Is Enhanced with Rest Intervals Between Changes in Context State. Annals of the New York Academy of Sciences, 2005, 1039, 166-175.	3.8	18
22	Exploring the Fundamental Dynamics of Error-Based Motor Learning Using a Stationary Predictive-Saccade Task. PLoS ONE, 2011, 6, e25225.	2.5	18
23	Sequences of Predictive Saccades Are Correlated Over a Span of â^¼2 s and Produce a Fractal Time Series. Journal of Neurophysiology, 2005, 93, 2002-2011.	1.8	17
24	Using prediction errors to drive saccade adaptation: the implicit double-step task. Experimental Brain Research, 2012, 222, 55-64.	1.5	16
25	Similarities in error processing establish a link between saccade prediction at baseline and adaptation performance. Journal of Neurophysiology, 2014, 111, 2084-2093.	1.8	16
26	Effect of Vergence on the Gain of the Linear Vestibulo-Ocular Reflex. Acta Oto-Laryngologica, 1995, 115, 72-76.	0.9	15
27	Why send humans into space? Science and non-science motivations for human space flight. Space Policy, 2017, 42, 37-40.	1.5	15
28	Psychological and biological challenges of the Mars mission viewed through the construct of the evolution of fundamental human needs. Acta Astronautica, 2018, 152, 793-799.	3.2	14
29	Effect of Head Orientation and Position on Vestibuloocular Reflex Adaptation. Annals of the New York Academy of Sciences, 1992, 656, 158-165.	3.8	13
30	Nonlinear dynamic systems evaluation of `rhythmic' eye movements (Optokinetic Nystagmus). Journal of Neuroscience Methods, 1998, 83, 45-56.	2.5	13
31	Context-specific adaptation of the gain of the oculomotor response to lateral translation using roll and pitch head tilts as contexts. Experimental Brain Research, 2002, 146, 388-393.	1.5	13
32	A model of time estimation and error feedback in predictive timing behavior. Journal of Computational Neuroscience, 2009, 26, 119-138.	1.0	13
33	Neurovestibular considerations for sub-orbital space flight: A framework for future investigation. Journal of Vestibular Research: Equilibrium and Orientation, 2010, 20, 31-43.	2.0	13
34	A call for research to assess and promote functional resilience in astronaut crews. Journal of Applied Physiology, 2016, 120, 471-472.	2.5	13
35	Context-specific adaptation of saccade gain in parabolic flight. Journal of Vestibular Research: Equilibrium and Orientation, 2003, 12, 211-221.	2.0	13
36	Short-term adaptation of the VOR: non-retinal-slip error signals and saccade substitution. Annals of the New York Academy of Sciences, 2003, 1004, 94-110.	3.8	13

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37	Context-Specific Gain Switching in the Human Vestibuloocular Reflex. Annals of the New York Academy of Sciences, 1992, 656, 889-891.	3.8	12
38	A Versatile Stereoscopic Visual Display System for Vestibular and Oculomotor Research. Journal of Vestibular Research: Equilibrium and Orientation, 1998, 8, 363-379.	2.0	12
39	Acquisition of context-specific adaptation is enhanced with rest intervals between changes in context state, suggesting a new form of motor consolidation. Neuroscience Letters, 2004, 369, 162-167.	2.1	11
40	Future space missions and human enhancement: Medical and ethical challenges. Futures, 2021, 133, 102819.	2.5	11
41	Context-specific adaptation and its significance for neurovestibular problems of space flight. Journal of Vestibular Research: Equilibrium and Orientation, 2003, 13, 345-62.	2.0	10
42	Linear Acceleration and Horizontal Eye Movements in Man. Acta Oto-Laryngologica, 1991, 111, 277-281.	0.9	9
43	An internal clock for predictive saccades is established identically by auditory or visual information. Vision Research, 2007, 47, 1645-1654.	1.4	9
44	Sensory versus motor information in the control of predictive saccade timing. Experimental Brain Research, 2007, 179, 505-515.	1.5	9
45	Integrating spaceflight human system risk research. Acta Astronautica, 2017, 139, 306-312.	3.2	9
46	Visions of a Martian future. Futures, 2020, 117, 102514.	2.5	7
47	Adaptation of the phase of the human linear vestibulo-ocular reflex (LVOR) and effects on the oculomotor neural integrator. Journal of Vestibular Research: Equilibrium and Orientation, 2000, 10, 239-247.	2.0	7
48	Life-sciences research opportunities in commercial suborbital space flight. Acta Astronautica, 2014, 104, 432-437.	3.2	6
49	Context-specific adaptation of saccade gain in parabolic flight. Journal of Vestibular Research: Equilibrium and Orientation, 2002, 12, 211-21.	2.0	6
50	Vertical skew due to changes in gravitoinertial force: a possible consequence of otolith asymmetry. Journal of Vestibular Research: Equilibrium and Orientation, 2006, 16, 117-25.	2.0	6
51	Sequences of predictive eye movements form a fractional Brownian series â€“ implications for self-organized criticality in the oculomotor system. Biological Cybernetics, 2005, 93, 43-53.	1.3	5
52	Responses to Noisy Periodic Stimuli Reveal Properties of a Neural Predictor. Journal of Neurophysiology, 2006, 96, 2121-2126.	1.8	5
53	Behavioral analysis of predictive saccade tracking as studied by countermanding. Experimental Brain Research, 2007, 181, 307-320.	1.5	5
54	Pre-flight sensorimotor adaptation protocols for suborbital flight. Journal of Vestibular Research: Equilibrium and Orientation, 2012, 22, 139-144.	2.0	5

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55	Dynamics of the human linear vestibulo-ocular reflex at medium frequency and modification by short-term training. Journal of Vestibular Research: Equilibrium and Orientation, 2000, 10, 271-82.	2.0	5
56	Introduction to the special issue on psychomotor coordination and control. Nonlinear Dynamics, Psychology, and Life Sciences, 2009, 13, 1-2.	0.2	5
57	Vergence can be controlled by audio feedback, and induces downward ocular deviation. Experimental Brain Research, 1994, 101, 169-72.	1.5	4
58	Veterans have greater variability in their perception of binocular alignment. PLoS ONE, 2018, 13, e0209622.	2.5	4
59	Use of a Genetic Algorithm for the Analysis of Eye Movements from the Linear Vestibulo-Ocular Reflex. Annals of Biomedical Engineering, 2001, 29, 510-522.	2.5	3
60	A new application for time-delay reconstruction: detection of fast-phase eye movements. Physics Letters, Section A: General, Atomic and Solid State Physics, 2001, 291, 349-354.	2.1	3
61	Cerebellar Influence in Oculomotor Phase-Transition Behavior. Annals of the New York Academy of Sciences, 2005, 1039, 536-539.	3.8	3
62	Phase transition between reactive and predictive eye movements is confirmed with nonlinear forecasting and surrogates. Neurocomputing, 2005, 65-66, 769-776.	5.9	3
63	Magnetic scleral search coil. Handbook of Clinical Neurophysiology, 2010, 9, 80-87.	0.0	3
64	Compensating for camera translation in video eye-movement recordings by tracking a representative landmark selected automatically by a genetic algorithm. Journal of Neuroscience Methods, 2009, 176, 157-165.	2.5	2
65	Assessment of vestibulo-ocular function without measuring eye movements. Journal of Neuroscience Methods, 2017, 283, 1-6.	2.5	2
66	Strength of baseline inter-trial correlations forecasts adaptive capacity in the vestibulo-ocular reflex. PLoS ONE, 2017, 12, e0174977.	2.5	2
67	A Long-Memory Model of Motor Learning in the Saccadic System: A Regime-Switching Approach. Annals of Biomedical Engineering, 2013, 41, 1613-1624.	2.5	1
68	Repair of Physiologic Time Series: Replacement of Anomalous Data Points to Preserve Fractal Exponents. Frontiers in Bioengineering and Biotechnology, 2017, 5, 10.	4.1	1
69	Inter-Trial Correlations in Predictive-Saccade Endpoints: Fractal Scaling Reflects Differential Control along Task-Relevant and Orthogonal Directions. Frontiers in Human Neuroscience, 2017, 11, 100.	2.0	1
70	Nursing Care in Spaceâ€"The need for nurses in the new and evolving field of healthcare in space. Journal of Clinical Nursing, 2022, 31, .	3.0	0
71	Incremental Velocity Error as a New Treatment in Vestibular Rehabilitation (INVENT VPT) Trial: study protocol for a randomized controlled crossover trial. Trials, 2021, 22, 908.	1.6	0