Theodore Raphan

List of Publications by Year
in descending order

128 papers	5,725 citations	81743 39 h-index	79541 73 g-index
128 all docs	128 docs citations	128 times ranked	1645 citing authors

#	Article	IF	Citations
1	Improving Mobile Device Security by Embodying and Co-adapting a Behavioral Biometric Interface. Frontiers in Computer Science, 2022, 4, .	1.7	0
2	Treatment of Gravitational Pulling Sensation in Patients With Mal de Debarquement Syndrome (MdDS): A Model-Based Approach. Frontiers in Integrative Neuroscience, 2022, 16, .	1.0	3
3	Predicting Vasovagal Responses: A Model-Based and Machine Learning Approach. Frontiers in Neurology, 2021, 12, 631409.	1.1	1
4	Vestibular, locomotor, and vestibulo-autonomic research: 50 years of collaboration with Bernard Cohen. Journal of Neurophysiology, 2020, 123, 329-345.	0.9	7
5	Modeling Interval Timing by Recurrent Neural Nets. Frontiers in Integrative Neuroscience, 2019, 13, 46.	1.0	6
6	Vestibular Activation Habituates the Vasovagal Response in the Rat. Frontiers in Neurology, 2017, 8, 83.	1.1	11
7	Coding of Velocity Storage in the Vestibular Nuclei. Frontiers in Neurology, 2017, 8, 386.	1.1	49
8	A Model of Blood Pressure, Heart Rate, and Vaso-Vagal Responses Produced by Vestibulo-Sympathetic Activation. Frontiers in Neuroscience, 2016, 10, 96.	1.4	25
9	Vasovagal Oscillations and Vasovagal Responses Produced by the Vestibulo-Sympathetic Reflex in the Rat. Frontiers in Neurology, 2014, 5, 37.	1.1	17
10	The vasovagal response of the rat: its relation to the vestibulosympathetic reflex and to Mayer waves. FASEB Journal, 2013, 27, 2564-2572.	0.2	20
11	Modeling spatial tuning of adaptation of the angular vestibulo-ocular reflex. Experimental Brain Research, 2012, 220, 165-178.	0.7	0
12	Motion sickness on tilting trains. FASEB Journal, 2011, 25, 3765-3774.	0.2	14
13	Orientation adaptation of eye movementâ€"related vestibular neurons due to prolonged head tilt. Annals of the New York Academy of Sciences, 2011, 1233, 214-218.	1.8	5
14	Complementary gain modifications of the cervico-ocular (COR) and angular vestibulo-ocular (aVOR) reflexes after canal plugging. Experimental Brain Research, 2011, 210, 549-560.	0.7	17
15	Spatial orientation of the angular vestibulo-ocular reflex (aVOR) after semicircular canal plugging and canal nerve section. Experimental Brain Research, 2011, 210, 583-594.	0.7	6
16	Sinusoidal galvanic vestibular stimulation (sGVS) induces a vasovagal response in the rat. Experimental Brain Research, 2011, 210, 45-55.	0.7	37
17	Frequency-Velocity Mismatch: A Fundamental Abnormality in Parkinsonian Gait. Journal of Neurophysiology, 2010, 103, 1478-1489.	0.9	27
18	Motion sickness induced by off-vertical axis rotation (OVAR). Experimental Brain Research, 2010, 204, 207-222.	0.7	34

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19	Dependence of the Roll Angular Vestibuloocular Reflex (aVOR) on Gravity. Journal of Neurophysiology, 2009, 102, 2616-2626.	0.9	8
20	Learning to stabilize the head of a quadrupedal robot with an artificial vestibular system. , 2009, , .		11
21	Adaptation of the angular vestibulo-ocular reflex to head movements in rotating frames of reference. Experimental Brain Research, 2009, 195, 553-567.	0.7	27
22	Modification of the Cervicoâ€ocular Reflex by Canal Plugging. Annals of the New York Academy of Sciences, 2009, 1164, 60-67.	1.8	4
23	Effects of the Linear Vestibuloâ€ocular Reflex on Accommodative Vergence Eye Movements. Annals of the New York Academy of Sciences, 2009, 1164, 499-504.	1.8	1
24	Effect of Canal Plugging on Quadrupedal Locomotion in Monkey. Annals of the New York Academy of Sciences, 2009, 1164, 89-96.	1.8	6
25	Adaptation of Orientation of Central Otolith-only Neurons. Annals of the New York Academy of Sciences, 2009, 1164, 367-371.	1.8	10
26	Vertical (Z-axis) acceleration alters the ocular response to linear acceleration in the rabbit. Experimental Brain Research, 2008, 185, 87-99.	0.7	7
27	Relative contribution of walking velocity and stepping frequency to the neural control of locomotion. Experimental Brain Research, 2008, 185, 121-135.	0.7	26
28	Combinning linear vestibulo-ocular and opto-kinetic reflex in a humanoid robot. , 2008, , .		2
29	Three-dimensional kinematics of saccadic eye movements in humans with cerebellar degeneration. Progress in Brain Research, 2008, 171, 215-218.	0.9	3
30	Dynamics of binocular fixation of targets during fore-aft motion. Progress in Brain Research, 2008, 171, 303-311.	0.9	3
31	Differential coding of head rotation by lateral-vertical canal convergent central vestibular neurons. Progress in Brain Research, 2008, 171, 313-318.	0.9	6
32	Baclofen, motion sickness susceptibility and the neural basis for velocity storage. Progress in Brain Research, 2008, 171, 543-553.	0.9	44
33	Adaptation of Orientation Vectors of Otolith-Related Central Vestibular Neurons to Gravity. Journal of Neurophysiology, 2008, 100, 1686-1690.	0.9	16
34	Head Stabilization by Vestibulocollic Reflexes During Quadrupedal Locomotion in Monkey. Journal of Neurophysiology, 2008, 100, 763-780.	0.9	33
35	Implementation of Bio-Inspired Vestibulo-Ocular Reflex in a Quadrupedal Robot. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	11
36	Rotation Axes of the Head During Positioning, Head Shaking, and Locomotion. Journal of Neurophysiology, 2007, 98, 3095-3108.	0.9	13

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37	The effect of a short-term delay of puberty on trabecular bone mass and structure in female rats: A texture-based and histomorphometric analysis. Bone, 2007, 40, 419-424.	1.4	11
38	Comparative assessment of bone mass and structure using texture-based and histomorphometric analyses. Bone, 2007, 40, 544-552.	1.4	16
39	Three-dimensional kinematics and dynamics of the foot during walking: a model of central control mechanisms. Experimental Brain Research, 2007, 176, 476-496.	0.7	28
40	Dynamics of quadrupedal locomotion of monkeys: implications for central control. Experimental Brain Research, 2007, 177, 551-572.	0.7	18
41	Labyrinthine lesions and motion sickness susceptibility. Experimental Brain Research, 2007, 178, 477-487.	0.7	54
42	Towards a Methodology for Stabilizing the Gaze of a Quadrupedal Robot. Lecture Notes in Computer Science, 2007, , 540-547.	1.0	7
43	Modeling Gravity-Dependent Plasticity of the Angular Vestibuloocular Reflex With a Physiologically Based Neural Network. Journal of Neurophysiology, 2006, 96, 3349-3361.	0.9	6
44	Spatial Properties of Central Vestibular Neurons. Journal of Neurophysiology, 2006, 95, 464-478.	0.9	36
45	Posture and Gaze during Circular Locomotion. Annals of the New York Academy of Sciences, 2006, 942, 470-471.	1.8	7
46	Effects of baclofen on the angular vestibulo-ocular reflex. Experimental Brain Research, 2006, 171, 262-271.	0.7	30
47	Electrical activation of the human vestibulo-sympathetic reflex. Experimental Brain Research, 2006, 171, 251-261.	0.7	59
48	Eye velocity asymmetry, ocular orientation, and convergence induced by angular rotation in the rabbit. Vision Research, 2006, 46, 961-969.	0.7	11
49	Head Fixed Field Coil System For Measuring Eye Movements in Freely Moving Monkeys. , 2006, 2006, 5567-70.		5
50	Robust High-speed Binocular 3D Eye Movement Tracking System Using a Two-radii Eye Model. , 2006, 2006, 5302-6.		0
51	A Model-Based Approach for Assessing Parkinsonian Gait and Effects of Levodopa and Deep Brain Stimulation. , 2006, 2006, 1228-31.		9
52	Head Fixed Field Coil System For Measuring Eye Movements in Freely Moving Monkeys. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
53	A Model-Based Approach for Assessing Parkinsonian Gait and Effects of Levodopa and Deep Brain Stimulation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
54	Artificial gravity: A possible countermeasure for post-flight orthostatic intolerance. Acta Astronautica, 2005, 56, 867-876.	1.7	25

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55	The Role of Gravity in Adaptation of the Vertical Angular Vestibulo-Ocular Reflex. Annals of the New York Academy of Sciences, 2005, 1039, 97-110.	1.8	7
56	Spatial orientation of optokinetic nystagmus and ocular pursuit during orbital space flight. Experimental Brain Research, 2005, 160, 38-59.	0.7	19
57	Orienting eye movements and nystagmus produced by translation while rotating (TWR). Experimental Brain Research, 2005, 163, 273-283.	0.7	12
58	Spatial Properties of Central Vestibular Neurons of Monkeys After Bilateral Lateral Canal Nerve Section. Journal of Neurophysiology, 2005, 94, 3860-3871.	0.9	11
59	Spatial Distribution of Gravity-Dependent Gain Changes in the Vestibuloocular Reflex. Journal of Neurophysiology, 2005, 93, 3693-3698.	0.9	15
60	Instantaneous rotation axes during active head movements. Journal of Vestibular Research: Equilibrium and Orientation, 2005, 15, 73-80.	0.8	9
61	A RELATIONAL DATABASE APPLICATION IN SUPPORT OF INTEGRATED NEUROSCIENCE RESEARCH. Journal of Integrative Neuroscience, 2004, 03, 363-378.	0.8	4
62	Robust and real-time torsional eye position calculation using a template-matching technique. Computer Methods and Programs in Biomedicine, 2004, 74, 201-209.	2.6	24
63	Texture-based approaches for identifying neuro-anatomical structures and electrode tracks. Computer Methods and Programs in Biomedicine, 2004, 74, 221-233.	2.6	4
64	The Physiology of the Vestibuloocular Reflex (VOR). , 2004, , 235-285.		19
65	The Critical Role of Velocity Storage in Production of Motion Sickness. Annals of the New York Academy of Sciences, 2003, 1004, 359-376.	1.8	50
66	The relation of motion sickness to the spatial?temporal properties of velocity storage. Experimental Brain Research, 2003, 151, 173-189.	0.7	85
67	Quantification of trabecular bone mass and orientation using Gabor wavelets. , 2003, , .		3
68	Adaptive Changes in the Angular VOR: Duration of Gain Changes and Lack of Effect of Noduloâ€Uvulectomy. Annals of the New York Academy of Sciences, 2003, 1004, 78-93.	1.8	10
69	Gravity-Specific Adaptation of the Angular Vestibuloocular Reflex: Dependence on Head Orientation With Regard to Gravity. Journal of Neurophysiology, 2003, 89, 571-586.	0.9	31
70	Ocular and perceptual responses to linear acceleration in microgravity: Alterations in otolith function on the COSMOS and Neurolab flights. Journal of Vestibular Research: Equilibrium and Orientation, 2003, 13, 377-393.	0.8	26
71	Adaptive changes in the angular VOR: duration of gain changes and lack of effect of nodulo-uvulectomy. Annals of the New York Academy of Sciences, 2003, 1004, 78-93.	1.8	6
72	Ocular and perceptual responses to linear acceleration in microgravity: alterations in otolith function on the COSMOS and Neurolab flights. Journal of Vestibular Research: Equilibrium and Orientation, 2003, 13, 377-93.	0.8	16

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73	Spatial Orientation of Caloric Nystagmus in Semicircular Canal-Plugged Monkeys. Journal of Neurophysiology, 2002, 88, 914-928.	0.9	32
74	Compensatory and Orienting Eye Movements Induced By Off-Vertical Axis Rotation (OVAR) in Monkeys. Journal of Neurophysiology, 2002, 88, 2445-2462.	0.9	41
75	The vestibulo-ocular reflex in three dimensions. Experimental Brain Research, 2002, 145, 1-27.	0.7	139
76	Spatial Orientation of Caloric Nystagmus. Annals of the New York Academy of Sciences, 2002, 956, 190-204.	1.8	4
77	The Nodulus and Uvula: Source of Cerebellar Control of Spatial Orientation of the Angular Vestibulo-Ocular Reflex. Annals of the New York Academy of Sciences, 2002, 978, 28-45.	1.8	53
78	Orienting otolith-ocular reflexes in the rabbit during static and dynamic tilts and off-vertical axis rotation. Vision Research, 2001, 41, 3255-3270.	0.7	44
79	Interaction of the body, head, and eyes during walking and turning. Experimental Brain Research, 2001, 136, 1-18.	0.7	299
80	Ocular counterrolling induced by centrifugation during orbital space flight. Experimental Brain Research, 2001, 137, 323-335.	0.7	63
81	Perception of tilt (somatogravic illusion) in response to sustained linear acceleration during space flight. Experimental Brain Research, 2001, 138, 410-418.	0.7	144
82	Vestibular Compensation and Orientation during Locomotion. Annals of the New York Academy of Sciences, 2001, 942, 128-138.	1.8	29
83	The Human Vestibuloâ€Ocular Reflex during Linear Locomotion. Annals of the New York Academy of Sciences, 2001, 942, 139-147.	1.8	46
84	Plenary Lecture: Orientation of the Eyes to Gravitoinertial Acceleration. Annals of the New York Academy of Sciences, 2001, 942, 241-258.	1.8	22
85	Changes in the Vestibuloâ€Ocular Reflex after Plugging of the Semicircular Canals. Annals of the New York Academy of Sciences, 2001, 942, 287-299.	1.8	5
86	Functions of the nucleus of the optic tract (NOT).. Experimental Brain Research, 2000, 131, 433-447.	0.7	41
87	Functions of the nucleus of the optic tract (NOT).. Experimental Brain Research, 2000, 131, 416-432.	0.7	60
88	Context-Specific Adaptation of the Vertical Vestibuloocular Reflex With Regard to Gravity. Journal of Neurophysiology, 2000, 84, 3067-3071.	0.9	44
89	Role of Muscle Pulleys in Producing Eye Position-Dependence in the Angular Vestibuloocular Reflex: A Model-Based Study. Journal of Neurophysiology, 2000, 84, 639-650.	0.9	23
90	The human response to artificial gravity in a weightless environment: Results from the Neurolab centrifugation experiments. AIP Conference Proceedings, 2000, , .	0.3	4

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91	Effects of Tilt of the Gravito-Inertial Acceleration Vector on the Angular Vestibuloocular Reflex During Centrifugation. Journal of Neurophysiology, 1999, 81, 2175-2190.	0.9	56
92	Control of Spatial Orientation of the Angular Vestibulo-Ocular Reflex by the Nodulus and Uvula of the Vestibulocerebellum. Annals of the New York Academy of Sciences, 1999, 871, 94-122.	1.8	56
93	Spatial Properties of Otolith Units Recorded in the Vestibular Nuclei. Annals of the New York Academy of Sciences, 1999, 871, 458-462.	1.8	12
94	Robust pupil center detection using a curvature algorithm. Computer Methods and Programs in Biomedicine, 1999, 59, 145-157.	2.6	94
95	Spatial orientation of the angular vestibulo-ocular reflex. Journal of Vestibular Research: Equilibrium and Orientation, 1999, 9, 163-172.	0.8	36
96	Model-based study of the human cupular time constant. Journal of Vestibular Research: Equilibrium and Orientation, 1999, 9, 293-301.	0.8	64
97	Vestibular adaptation to space in monkeys. Otolaryngology - Head and Neck Surgery, 1998, 119, 65-77.	1.1	36
98	Control of Spatial Orientation of the Angular Vestibuloocular Reflex by the Nodulus and Uvula. Journal of Neurophysiology, 1998, 79, 2690-2715.	0.9	187
99	Dynamics and Kinematics of the Angular Vestibulo-Ocular Reflex in Monkey: Effects of Canal Plugging. Journal of Neurophysiology, 1998, 80, 3077-3099.	0.9	50
100	Modeling Control of Eye Orientation in Three Dimensions. I. Role of Muscle Pulleys in Determining Saccadic Trajectory. Journal of Neurophysiology, 1998, 79, 2653-2667.	0.9	161
101	Chapter 18 Control of the three-dimensional dynamic characteristics of the angular vestibulo-ocular reflex by the nodulus and uvula. Progress in Brain Research, 1997, 114, 321-334.	0.9	18
102	Contribution of Vestibular Commissural Pathways to Spatial Orientation of the Angular Vestibuloocular Reflex. Journal of Neurophysiology, 1997, 78, 1193-1197.	0.9	61
103	Modeling the Organization of the Linear and Angular Vestibulo-Ocular Reflexes. Annals of the New York Academy of Sciences, 1996, 781, 348-363.	1.8	45
104	Nodulo-Uvular Control of Central Vestibular Dynamics Determines Spatial Orientation of the Angular Vestibulo-Ocular Reflex. Annals of the New York Academy of Sciences, 1996, 781, 364-384.	1.8	39
105	Normalization Effects of Vision on the Compensatory VOR after Canal Plugging. Annals of the New York Academy of Sciences, 1996, 781, 713-717.	1.8	3
106	Effects of Microinjection of Muscimol in the Vestibular Nuclei on Velocity Storage and Estimation of Head Velocity by the Otolith Organs. Annals of the New York Academy of Sciences, 1996, 781, 718-723.	1.8	6
107	Modulation of vergence by off-vertical yaw axis rotation in the monkey normal characteristics and effects of space flight. Experimental Brain Research, 1996, 111, 21-9.	0.7	26
108	Effects of spaceflight on ocular counterrolling and the spatial orientation of the vestibular system. Experimental Brain Research, 1994, 102, 45-56.	0.7	90

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109	Orientation of human optokinetic nystagmus to gravity: a model-based approach. Experimental Brain Research, 1994, 99, 347-60.	0.7	58
110	Spatial Orientation of the Vestibular System. Annals of the New York Academy of Sciences, 1992, 656, 140-157.	1.8	85
111	The Nucleus of the Optic Tract: Its Function in Gaze Stabilization and Control of Visual-Vestibular Interaction. Annals of the New York Academy of Sciences, 1992, 656, 277-296.	1.8	65
112	Characterization of Yaw to Roll Cross-Coupling in the Three-Dimensional Structure of the Velocity Storage Integrator. Annals of the New York Academy of Sciences, 1992, 656, 829-831.	1.8	13
113	The Representation of the Spatial Vertical in Human Optokinetic Nystagmus. Annals of the New York Academy of Sciences, 1992, 656, 843-846.	1.8	9
114	Unit Activity in the Vestibular Nuclei of Monkeys during Off-Vertical Axis Rotation. Annals of the New York Academy of Sciences, 1992, 656, 954-956.	1.8	14
115	Neural basis for eye velocity generation in the vestibular nuclei of alert monkeys during off-vertical axis rotation. Experimental Brain Research, 1992, 92, 209-26.	0.7	83
116	Habituation and adaptation of the vestibuloocular reflex: a model of differential control by the vestibulocerebellum. Experimental Brain Research, 1992, 90, 526-38.	0.7	133
117	Modeling 3-D Slow Phase Velocity Estimation During Off-Vertical-Axis Rotation (OVAR). Journal of Vestibular Research: Equilibrium and Orientation, 1992, 2, 1-14.	0.8	23
118	Neural network modelling of eye compensation during off-vertical-axis rotation. Neural Networks, 1990, 3, 265-276.	3.3	24
119	Modeling Slow Phase Velocity Generation during Off-Vertical Axis Rotationa. Annals of the New York Academy of Sciences, 1988, 545, 29-50.	1.8	169
120	Organizational Principles of Velocity Storage in Three Dimensions. Annals of the New York Academy of Sciences, 1988, 545, 74-92.	1.8	112
121	Effects of Flocculectomy on Vestibular and Optokinetic Nystagmus and Unit Activity in the Vestibular Nuclei. Advances in Oto-Rhino-Laryngology, 1983, 30, 226-229.	1.6	7
122	Role of the otolith organs in generation of horizontal nystagmus: effects of selective labyrinthine lesions. Brain Research, 1983, 276, 159-164.	1.1	276
123	Nystagmus generated by sinusoidal pitch while rotating. Brain Research, 1983, 276, 165-172.	1.1	29
124	Labyrinthine Activation during Rotation about Axes Tilted from the Vertical. Advances in Oto-Rhino-Laryngology, 1983, 30, 50-53.	1.6	17
125	EFFECTS OF GRAVITY ON ROTATORY NYSTAGMUS IN MONKEYS. Annals of the New York Academy of Sciences, 1981, 374, 44-55.	1.8	268
126	VELOCITY STORAGE, NYSTAGMUS, AND VISUAL-VESTIBULAR INTERACTIONS IN HUMANS. Annals of the New York Academy of Sciences, 1981, 374, 421-433.	1.8	320

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127	Asymmetric velocity storage for upward and downward nystagmus. Brain Research, 1979, 176, 159-164.	1.1	65
128	Quantitative analysis of the velocity characteristics of optokinetic nystagmus and optokinetic afterâ€nystagmus. Journal of Physiology, 1977, 270, 321-344.	1.3	639