Michele R Rucci

List of Publications by Year
in descending order

71 papers	2,660 citations	293460 24 h-index	232693 48 g-index
78 all docs	78 docs citations	78 times ranked	1495 citing authors

#	Article	IF	Citations
1	Fast and nonuniform dynamics of perisaccadic vision in the central fovea. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	11
2	Cognitive influences on fixational eye movements during visual discrimination. Journal of Vision, 2021, 21, 1894.	0.1	2
3	Spatiotemporal Content of Saccade Transients. Current Biology, 2020, 30, 3999-4008.e2.	1.8	31
4	Accuracy and precision of small saccades. Scientific Reports, 2020, 10, 16097.	1.6	13
5	Finely tuned eye movements enhance visual acuity. Nature Communications, 2020, 11, 795.	5.8	62
6	Contrast sensitivity reveals an oculomotor strategy for temporally encoding space. ELife, 2019, 8, .	2.8	13
7	Monocular microsaccades: Do they really occur?. Journal of Vision, 2018, 18, 18.	0.1	11
8	Temporal Coding of Visual Space. Trends in Cognitive Sciences, 2018, 22, 883-895.	4.0	75
9	Perspective: Can eye movements contribute to emmetropization?. Journal of Vision, 2018, 18, 10.	0.1	8
10	Perceptual enhancements during microsaccade preparation. Journal of Vision, 2018, 18, 1278.	0.1	1
11	Mapping visibility around the blind spot. Journal of Vision, 2018, 18, 1279.	0.1	0
12	Frequency Content of Saccade Transients. Journal of Vision, 2018, 18, 1010.	0.1	0
13	The impact of retinal image motion on extrafoveal sensitivity. Journal of Vision, 2018, 18, 372.	0.1	0
14	Temporal Cues to Defocus in Emmetropia and Myopia. Journal of Vision, 2018, 18, 628.	0.1	0
15	Consequences of the Oculomotor Cycle for the Dynamics of Perception. Current Biology, 2017, 27, 1268-1277.	1.8	56
16	Selective attention within the foveola. Nature Neuroscience, 2017, 20, 1413-1417.	7.1	54
17	Visual suppression within the foveola during microsaccades. Journal of Vision, 2017, 17, 921.	0.1	3
18	Microsaccades and high-acuity vision. Journal of Vision, 2017, 17, 10.	0.1	0

#	Article	IF	Citations
19	Monocular microsaccades; do they really occur?. Journal of Vision, 2017, 17, 893.	0.1	1
20	The role of small eye movements in spatial exploration. Journal of Vision, 2017, 17, 1159.	0.1	0
21	The Role of Microsaccades in the Snellen Acuity Test. Journal of Vision, 2017, 17, 920.	0.1	0
22	Design, simulation and evaluation of uniform magnetic field systems for head-free eye movement recordings with scleral search coils. , 2016, 2016, 247-250.		7
23	Unsupervised learning of depth during coordinated head/eye movements. , 2016, , .		2
24	Fixational eye movements and perception. Vision Research, 2016, 118, 1-4.	0.7	11
25	Are the visual transients from microsaccades helpful? Measuring the influences of small saccades on contrast sensitivity. Vision Research, 2016, 118, 60-69.	0.7	28
26	A compact field guide to the study of microsaccades: Challenges and functions. Vision Research, 2016, 118, 83-97.	0.7	119
27	Why do the response properties of magnocellular and parvocellular neurons differ both in space and time?. Journal of Vision, 2016, 16, 564.	0.1	0
28	Covert attention within the foveola enhances fine discrimination. Journal of Vision, 2016, 16, 1264.	0.1	0
29	Microsaccades during reading. Journal of Vision, 2016, 16, 858.	0.1	0
30	Control and Functions of Fixational Eye Movements. Annual Review of Vision Science, 2015, 1, 499-518.	2.3	162
31	Head-Eye Coordination at a Microscopic Scale. Current Biology, 2015, 25, 3253-3259.	1.8	37
32	The unsteady eye: an information-processing stage, not a bug. Trends in Neurosciences, 2015, 38, 195-206.	4.2	165
33	Decorrelation of retinal response to natural scenes by fixational eye movements. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3110-3115.	3.3	27
34	Contributions of Eye Movement Transients to Spatial Vision. Journal of Vision, 2015, 15, 211.	0.1	2
35	Selective attention within the foveola. Journal of Vision, 2015, 15, 177.	0.1	0
36	Fine-Scale Plasticity of Microscopic Saccades. Journal of Neuroscience, 2014, 34, 11665-11672.	1.7	24

#	Article	IF	Citations
37	Bayesian multimodal integration in a robot replicating human head and eye movements. , 2014, , .		8
38	The Visual Input to the Retina during Natural Head-Free Fixation. Journal of Neuroscience, 2014, 34, 12701-12715.	1.7	47
39	Active Vision: Adapting How to Look. Current Biology, 2013, 23, R718-R720.	1.8	6
40	Microscopic Eye Movements Compensate for Nonhomogeneous Vision within the Fovea. Current Biology, 2013, 23, 1691-1695.	1.8	124
41	Optimal Multimodal Integration in Spatial Localization. Journal of Neuroscience, 2013, 33, 14259-14268.	1.7	46
42	Depth Estimation during Fixational Head Movements in a Humanoid Robot. Lecture Notes in Computer Science, 2013, , 264-273.	1.0	3
43	Motion parallax from microscopic head movements during visual fixation. Vision Research, 2012, 70, 7-17.	0.7	26
44	Active Vision During Coordinated Head/Eye Movements in a Humanoid Robot. IEEE Transactions on Robotics, 2012, 28, 1423-1430.	7.3	15
45	Precision of sustained fixation in trained and untrained observers. Journal of Vision, 2012, 12, 31-31.	0.1	108
46	Temporal Encoding of Spatial Information during Active Visual Fixation. Current Biology, 2012, 22, 510-514.	1.8	179
47	Microsaccades precisely relocate gaze in a high visual acuity task. Nature Neuroscience, 2010, 13, 1549-1553.	7.1	286
48	Eye movements under various conditions of image fading. Journal of Vision, 2010, 10, 1-18.	0.1	64
49	Stability of the Visual World during Eye Drift. Journal of Neuroscience, 2010, 30, 11143-11150.	1.7	49
50	ACTIVE 3D VISION THROUGH GAZE RELOCATION IN A HUMANOID ROBOT. International Journal of Humanoid Robotics, 2009, 06, 481-503.	0.6	6
51	A theory of the influence of eye movements on the refinement of direction selectivity in the cat's primary visual cortex. Network: Computation in Neural Systems, 2009, 20, 197-232.	2.2	3
52	Hebbian learning of visually directed reaching by a robot arm. , 2009, , .		1
53	Fixational eye movements, natural image statistics, and fine spatial vision. Network: Computation in Neural Systems, 2008, 19, 253-285.	2.2	39
54	Investigating the Visual Functions of Fixational Eye Movements. , 2008, , .		0

#	Article	IF	Citations
55	Oculomotor synchronization of visual responses in modeled populations of retinal ganglion cells. Journal of Vision, 2008, 8, 4-4.	0.1	8
56	Integrating robotics and neuroscience: brains for robots, bodies for brains. Advanced Robotics, 2007, 21, 1115-1129.	1.1	22
57	A model of the dynamics of retinal activity during natural visual fixation. Visual Neuroscience, 2007, 24, 217-230.	0.5	22
58	Miniature eye movements enhance fine spatial detail. Nature, 2007, 447, 852-855.	13.7	313
59	EyeRIS: A general-purpose system for eye-movement-contingent display control. Behavior Research Methods, 2007, 39, 350-364.	2.3	53
60	Active estimation of distance in a robotic system that replicates human eye movement. Robotics and Autonomous Systems, 2007, 55, 107-121.	3.0	20
61	A Theoretical Analysis of the Influence of Fixational Instability on the Development of Thalamocortical Connectivity. Neural Computation, 2006, 18, 569-590.	1.3	9
62	A theoretical analysis of the influence of fixational instability on the development of thalamocortical connectivity. Neural Computation, 2006, 18, 569-90.	1.3	5
63	Effects of ISI and flash duration on the identification of briefly flashed stimuli. Spatial Vision, 2005, 18, 259-273.	1.4	4
64	Fixational instability and natural image statistics: Implications for early visual representations. Network: Computation in Neural Systems, 2005, 16, 121-138.	2.2	36
65	Decorrelation of neural activity during fixational instability: Possible implications for the refinement of V1 receptive fields. Visual Neuroscience, 2004, 21, 725-738.	0.5	25
66	Contributions of fixational eye movements to the discrimination of briefly presented stimuli. Journal of Vision, 2003, 3, 18.	0.1	49
67	Modeling LGN Responses during Free-Viewing: A Possible Role of Microscopic Eye Movements in the Refinement of Cortical Orientation Selectivity. Journal of Neuroscience, 2000, 20, 4708-4720.	1.7	29
68	Binaural cross-correlation and auditory localization in the barn owl: a theoretical study. Neural Networks, 1999, 12, 31-42.	3.3	16
69	Registration of Neural Maps through Value-Dependent Learning: Modeling the Alignment of Auditory and Visual Maps in the Barn Owlâ€™s Optic Tectum. Journal of Neuroscience, 1997, 17, 334-352.	1.7	91
70	Development of cutaneo-motor coordination in an autonomous robotic system. Autonomous Robots, 1994, 1, 93-106.	3.2	9
71	A neural network-based robotic system implementing recent biological theories on tactile perception. Lecture Notes in Control and Information Sciences, 1994, , 234-244.	0.6	4