Rafael Malach

List of Publications by Year
in descending order

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98 papers	16,868 citations	41344 49 h-index	34986 98 g-index
111 all docs	111 docs citations	111 times ranked	12560 citing authors

#	Article	IF	Citations
1	Intersubject Synchronization of Cortical Activity During Natural Vision. Science, 2004, 303, 1634-1640.	12.6	1,487
2	Differential Processing of Objects under Various Viewing Conditions in the Human Lateral Occipital Complex. Neuron, 1999, 24, 187-203.	8.1	1,104
3	fMR-adaptation: a tool for studying the functional properties of human cortical neurons. Acta Psychologica, 2001, 107, 293-321.	1.5	978
4	THE HUMAN VISUAL CORTEX. Annual Review of Neuroscience, 2004, 27, 649-677.	10.7	941
5	Coupling Between Neuronal Firing, Field Potentials, and fMRI in Human Auditory Cortex. Science, 2005, 309, 951-954.	12.6	900
6	Centerâ€“periphery organization of human object areas. Nature Neuroscience, 2001, 4, 533-539.	14.8	651
7	Visual motion aftereffect in human cortical area MT revealed by functional magnetic resonance imaging. Nature, 1995, 375, 139-141.	27.8	627
8	When the Brain Loses Its Self: Prefrontal Inactivation during Sensorimotor Processing. Neuron, 2006, 50, 329-339.	8.1	576
9	The dynamics of object-selective activation correlate with recognition performance in humans. Nature Neuroscience, 2000, 3, 837-843.	14.8	529
10	Coupling between Neuronal Firing Rate, Gamma LFP, and BOLD fMRI Is Related to Interneuronal Correlations. Current Biology, 2007, 17, 1275-1285.	3.9	513
11	Reliability of cortical activity during natural stimulation. Trends in Cognitive Sciences, 2010, 14, 40-48.	7.8	511
12	Interhemispheric correlations of slow spontaneous neuronal fluctuations revealed in human sensory cortex. Nature Neuroscience, 2008, 11, 1100-1108.	14.8	442
13	A sequence of object-processing stages revealed by fMRI in the human occipital lobe. Human Brain Mapping, 1998, 6, 316-328.	3.6	438
14	Internally Generated Reactivation of Single Neurons in Human Hippocampus During Free Recall. Science, 2008, 322, 96-101.	12.6	394
15	The idiosyncratic brain: distortion of spontaneous connectivity patterns in autism spectrum disorder. Nature Neuroscience, 2015, 18, 302-309.	14.8	364
16	Disrupted Neural Synchronization in Toddlers with Autism. Neuron, 2011, 70, 1218-1225.	8.1	341
17	Extrinsic and Intrinsic Systems in the Posterior Cortex of the Human Brain Revealed during Natural Sensory Stimulation. Cerebral Cortex, 2007, 17, 766-777.	2.9	327
18	New images from human visual cortex. Trends in Neurosciences, 1996, 19, 481-489.	8.6	312

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19	Large-Scale Mirror-Symmetry Organization of Human Occipito-Temporal Object Areas. Neuron, 2003, 37, 1027-1041.	8.1	303
20	Neural â€œIgnitionâ€• Enhanced Activation Linked to Perceptual Awareness in Human Ventral Stream Visual Cortex. Neuron, 2009, 64, 562-574.	8.1	242
21	Cortical hierarchy reflected in the organization of intrinsic connections in macaque monkey visual cortex. Journal of Comparative Neurology, 1993, 334, 19-46.	1.6	239
22	Sensing the invisible: differential sensitivity of visual cortex and amygdala to traumatic context. NeuroImage, 2003, 19, 587-600.	4.2	201
23	Contrast Sensitivity in Human Visual Areas and Its Relationship to Object Recognition. Journal of Neurophysiology, 2002, 87, 3102-3116.	1.8	200
24	Negative BOLD Differentiates Visual Imagery and Perception. Neuron, 2005, 48, 859-872.	8.1	197
25	Widespread functional connectivity and fMRI fluctuations in human visual cortex in the absence of visual stimulation. NeuroImage, 2006, 30, 1313-1324.	4.2	194
26	A unifying principle underlying the extracellular field potential spectral responses in the human cortex. Journal of Neurophysiology, 2015, 114, 505-519.	1.8	171
27	Data-driven clustering reveals a fundamental subdivision of the human cortex into two global systems. Neuropsychologia, 2008, 46, 540-553.	1.6	169
28	Save the Global: Global Signal Connectivity as a Tool for Studying Clinical Populations with Functional Magnetic Resonance Imaging. Brain Connectivity, 2014, 4, 395-403.	1.7	160
29	Hippocampal sharp-wave ripples linked to visual episodic recollection in humans. Science, 2019, 365, .	12.6	149
30	Vase or Face? A Neural Correlate of Shape-Selective Grouping Processes in the Human Brain. Journal of Cognitive Neuroscience, 2001, 13, 744-753.	2.3	146
31	Analysis of the Neuronal Selectivity Underlying Low fMRI Signals. Current Biology, 2002, 12, 964-972.	3.9	131
32	Coupling between pupil fluctuations and resting-state fMRI uncovers a slow build-up of antagonistic responses in the human cortex. NeuroImage, 2015, 106, 414-427.	4.2	116
33	Global waves synchronize the brainâ€™s functional systems with fluctuating arousal. Science Advances, 2021, 7, .	10.3	110
34	Neurocognitive biases and the patterns of spontaneous correlations in the human cortex. Trends in Cognitive Sciences, 2013, 17, 606-615.	7.8	109
35	Development of visual callosal connections in neonatally enucleated rats. Journal of Comparative Neurology, 1987, 260, 321-348.	1.6	102
36	Sub-exemplar Shape Tuning in Human Face-Related Areas. Cerebral Cortex, 2007, 17, 325-338.	2.9	101

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37	The Day-After Effect: Long Term, Hebbian-Like Restructuring of Resting-State fMRI Patterns Induced by a Single Epoch of Cortical Activation. Journal of Neuroscience, 2013, 33, 9488-9497.	3.6	100
38	Cortical columns as devices for maximizing neuronal diversity. Trends in Neurosciences, 1994, 17, 101-104.	8.6	95
39	The Link between fMRI-BOLD Activation and Perceptual Awareness Is â€œStream-Invariantâ€•in the Human Visual System. Cerebral Cortex, 2011, 21, 2829-2837.	2.9	87
40	Covert neurofeedback without awareness shapes cortical network spontaneous connectivity. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E2413-20.	7.1	87
41	Spontaneous Fluctuations and Non-linear Ignitions: Two Dynamic Faces of Cortical Recurrent Loops. Neuron, 2015, 88, 194-206.	8.1	82
42	Convergent evolution of face spaces across human face-selective neuronalÂgroups and deepÂconvolutional networks. Nature Communications, 2019, 10, 4934.	12.8	76
43	Representation of Multiple Body Parts in the Missing-Hand Territory of Congenital One-Handers. Current Biology, 2017, 27, 1350-1355.	3.9	71
44	Exemplar Selectivity Reflects Perceptual Similarities in the Human Fusiform Cortex. Cerebral Cortex, 2014, 24, 1879-1893.	2.9	67
45	Functional analysis of the periphery effect in human building related areas. Human Brain Mapping, 2004, 22, 15-26.	3.6	66
46	Enhanced Category Tuning Revealed by Intracranial Electroencephalograms in High-Order Human Visual Areas. Journal of Neuroscience, 2007, 27, 6234-6242.	3.6	65
47	One Picture Is Worth at Least a Million Neurons. Current Biology, 2004, 14, 996-1001.	3.9	64
48	Global Functional Connectivity Deficits in Schizophrenia Depend on Behavioral State. Journal of Neuroscience, 2011, 31, 12972-12981.	3.6	60
49	Seeing with Profoundly Deactivated Mid-level Visual Areas: Non-hierarchical Functioning in the Human Visual Cortex. Cerebral Cortex, 2009, 19, 1687-1703.	2.9	57
50	Perceptual shape sensitivity to upright and inverted faces is reflected in neuronal adaptation. NeuroImage, 2010, 50, 383-395.	4.2	57
51	Alterations in task-induced activity and resting-state fluctuations in visual and DMN areas revealed in long-term meditators. NeuroImage, 2016, 135, 125-134.	4.2	56
52	Stimulus-free thoughts induce differential activation in the human default network. NeuroImage, 2011, 54, 1692-1702.	4.2	53
53	The emotionâ€“action link? Naturalistic emotional stimuli preferentially activate the human dorsal visual stream. NeuroImage, 2014, 84, 254-264.	4.2	52
54	Deconstructing the default: Cortical subdivision of the default mode/intrinsic system during selfâ€•related processing. Human Brain Mapping, 2014, 35, 1491-1502.	3.6	49

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55	Dendritic sampling across processing streams in monkey striate cortex. Journal of Comparative Neurology, 1992, 315, 303-312.	1.6	48
56	Spatial and Object-Based Attention Modulates Broadband High-Frequency Responses across the Human Visual Cortical Hierarchy. Journal of Neuroscience, 2013, 33, 1228-1240.	3.6	48
57	Reduction in Inter-Hemispheric Connectivity in Disorders of Consciousness. PLoS ONE, 2012, 7, e37238.	2.5	48
58	Hippocampal ripples and their coordinated dialogue with the default mode network during recent and remote recollection. Neuron, 2021, 109, 2767-2780.e5.	8.1	46
59	Class Information Predicts Activation by Object Fragments in Human Object Areas. Journal of Cognitive Neuroscience, 2008, 20, 1189-1206.	2.3	45
60	Spontaneously Emerging Patterns in Human Visual Cortex Reflect Responses to Naturalistic Sensory Stimuli. Cerebral Cortex, 2017, 27, bhv275.	2.9	43
61	A Widely Distributed Spectral Signature of Task-Negative Electrocorticography Responses Revealed during a Visuomotor Task in the Human Cortex. Journal of Neuroscience, 2012, 32, 10458-10469.	3.6	42
62	Targeting the functional properties of cortical neurons using fMR-adaptation. NeuroImage, 2012, 62, 1163-1169.	4.2	42
63	Normalisation of brain connectivity through compensatory behaviour, despite congenital hand absence. ELife, 2015, 4, .	6.0	41
64	Differential Magnetic Resonance Neurofeedback Modulations across Extrinsic (Visual) and Intrinsic (Default-Mode) Nodes of the Human Cortex. Journal of Neuroscience, 2015, 35, 2588-2595.	3.6	40
65	The surprising role of the default mode network in naturalistic perception. Communications Biology, 2021, 4, 79.	4.4	40
66	Human intracranial recordings link suppressed transients rather than 'filling-in' to perceptual continuity across blinks. ELife, 2016, 5, .	6.0	40
67	<scp>A</scp>strocyte disruption of neurovascular communication is linked to cortical damage in an animal model of multiple sclerosis. Glia, 2018, 66, 1098-1117.	4.9	37
68	Regionally-specific adaptation dynamics in human object areas. NeuroImage, 2008, 39, 1926-1937.	4.2	33
69	Coupling between spontaneous (resting state) fMRI fluctuations and human oculo-motor activity. NeuroImage, 2011, 58, 213-225.	4.2	33
70	Tuning face perception with electrical stimulation of the fusiform gyrus. Human Brain Mapping, 2017, 38, 2830-2842.	3.6	32
71	Invariant Temporal Dynamics Underlie Perceptual Stability in Human Visual Cortex. Current Biology, 2017, 27, 155-165.	3.9	28
72	Brain activity correlates with emotional perception induced by dynamic avatars. NeuroImage, 2015, 122, 306-317.	4.2	27

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73	Data for default network reduced functional connectivity in meditators, negatively correlated with meditation expertise. Data in Brief, 2016, 8, 910-914.	1.0	27
74	Diminished Auditory Responses during NREM Sleep Correlate with the Hierarchy of Language Processing. PLoS ONE, 2016, 11, e0157143.	2.5	27
75	Repetitive speech elicits widespread deactivation in the human cortex: the â€œ<scp>M</scp>antraâ€• effect?. Brain and Behavior, 2015, 5, e00346.	2.2	26
76	How do the blind â€˜seeâ€™? The role of spontaneous brain activity in self-generated perception. Brain, 2021, 144, 340-353.	7.6	26
77	Astrocyte morphology is confined by cortical functional boundaries in mammals ranging from mice to human. ELife, 2016, 5, .	6.0	26
78	Neuronal baseline shifts underlying boundary setting during free recall. Nature Communications, 2017, 8, 1301.	12.8	25
79	Resting state functional connectivity reflects abnormal task-activated patterns in a developmental object agnosic. NeuroImage, 2013, 70, 189-198.	4.2	24
80	The measurement problem in consciousness research. Behavioral and Brain Sciences, 2007, 30, 516-517.	0.7	23
81	Emergence of Sensory Patterns during Sleep Highlights Differential Dynamics of REM and Non-REM Sleep Stages. Journal of Neuroscience, 2013, 33, 14715-14728.	3.6	20
82	Quenching of spontaneous fluctuations by attention in human visual cortex. NeuroImage, 2018, 171, 84-98.	4.2	20
83	Local neuronal relational structures underlying the contents of human conscious experience. Neuroscience of Consciousness, 2021, 2021, niab028.	2.6	17
84	Face-Selective Units in Human Ventral Temporal Cortex Reactivate during Free Recall. Journal of Neuroscience, 2021, 41, 3386-3399.	3.6	16
85	Increasing suppression of saccade-related transients along the human visual hierarchy. ELife, 2017, 6, .	6.0	16
86	Intracranial recordings reveal transient response dynamics during information maintenance in human cerebral cortex. Human Brain Mapping, 2015, 36, 3988-4003.	3.6	15
87	Resting-State Fluctuations Underlie Free and Creative Verbal Behaviors in the Human Brain. Cerebral Cortex, 2021, 31, 213-232.	2.9	13
88	Resting-State Activity in High-Order Visual Areas as a Window into Natural Human Brain Activations. Cerebral Cortex, 2019, 29, 3618-3635.	2.9	12
89	Modeling the electrical field created by mass neural activity. Neural Networks, 2013, 40, 44-51.	5.9	10
90	Motion cues modulate responses to emotion in movies. Scientific Reports, 2018, 8, 10881.	3.3	10

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91	Where Does Time Go When You Blink?. Psychological Science, 2019, 30, 907-916.	3.3	10
92	The Noisy Brain: Power of Resting-State Fluctuations Predicts Individual Recognition Performance. Cell Reports, 2019, 29, 3775-3784.e4.	6.4	10
93	Selectivity of audiovisual ECoG responses revealed under naturalistic stimuli in the human cortex. Journal of Neurophysiology, 2013, 109, 2272-2281.	1.8	9
94	Inter-participant consistency of language-processing networks during abstract thoughts. NeuroImage, 2020, 211, 116626.	4.2	9
95	Trained to silence: Progressive signal inhibition during short visuo-motor training. NeuroImage, 2016, 143, 106-115.	4.2	8
96	Studying the precuneus reveals structureâ€“functionâ€“affect correlation in long-term meditators. Social Cognitive and Affective Neuroscience, 2020, 15, 1203-1216.	3.0	8
97	Conscious perception and the frontal lobes: comment on Lau and Rosenthal. Trends in Cognitive Sciences, 2011, 15, 507.	7.8	6
98	Neuronal reflections and subjective awareness. Advances in Consciousness Research, 2012, , 21-36.	0.2	6