Byron M Yu

List of Publications by Year
in descending order

51 papers	7,084 citations	159585 30 h-index	233421 45 g-index
61 all docs	61 docs citations	61 times ranked	4814 citing authors

#	Article	IF	Citations
1	Feedforward and feedback interactions between visual cortical areas use different population activity patterns. Nature Communications, 2022, 13, 1099.	12.8	36
2	Learning is shaped by abrupt changes in neural engagement. Nature Neuroscience, 2021, 24, 727-736.	14.8	39
3	A Stable Population Code for Attention in Prefrontal Cortex Leads a Dynamic Attention Code in Visual Cortex. Journal of Neuroscience, 2021, 41, 9163-9176.	3.6	12
4	Bridging neuronal correlations and dimensionality reduction. Neuron, 2021, 109, 2740-2754.e12.	8.1	24
5	How learning unfolds in the brain: toward an optimization view. Neuron, 2021, 109, 3720-3735.	8.1	19
6	Principles of Corticocortical Communication: Proposed Schemes and Design Considerations. Trends in Neurosciences, 2020, 43, 725-737.	8.6	67
7	Slow Drift of Neural Activity as a Signature of Impulsivity in Macaque Visual and Prefrontal Cortex. Neuron, 2020, 108, 551-567.e8.	8.1	82
8	Statistical methods for dissecting interactions between brain areas. Current Opinion in Neurobiology, 2020, 65, 59-69.	4.2	41
9	Stabilization of a brainâ€“computer interface via the alignment of low-dimensional spaces of neural activity. Nature Biomedical Engineering, 2020, 4, 672-685.	22.5	118
10	Bridging large-scale neuronal recordings and large-scale network models using dimensionality reduction. Current Opinion in Neurobiology, 2019, 55, 40-47.	4.2	51
11	New neural activity patterns emerge with long-term learning. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 15210-15215.	7.1	145
12	Cortical Areas Interact through a Communication Subspace. Neuron, 2019, 102, 249-259.e4.	8.1	239
13	Learning by neural reassociation. Nature Neuroscience, 2018, 21, 607-616.	14.8	170
14	Computational Neuroscience: Mathematical and Statistical Perspectives. Annual Review of Statistics and Its Application, 2018, 5, 183-214.	7.0	48
15	Distinct population codes for attention in the absence and presence of visual stimulation. Nature Communications, 2018, 9, 4382.	12.8	30
16	Constraints on neural redundancy. ELife, 2018, 7, .	6.0	56
17	A Path to Understanding How Motor Cortex Influences Muscle Activity. Neuron, 2017, 95, 476-478.	8.1	2
18	Population activity structure of excitatory and inhibitory neurons. PLoS ONE, 2017, 12, e0181773.	2.5	24

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19	Fault tolerance in the brain. Nature, 2016, 532, 449-450.	27.8	6
20	Brainâ€“computer interfaces for dissecting cognitive processes underlying sensorimotor control. Current Opinion in Neurobiology, 2016, 37, 53-58.	4.2	82
21	Scaling Properties of Dimensionality Reduction for Neural Populations and Network Models. PLoS Computational Biology, 2016, 12, e1005141.	3.2	76
22	Stimulus-Driven Population Activity Patterns in Macaque Primary Visual Cortex. PLoS Computational Biology, 2016, 12, e1005185.	3.2	42
23	Internal models for interpreting neural population activity during sensorimotor control. ELife, 2015, 4, .	6.0	41
24	Extracting Low-Dimensional Latent Structure from Time Series in the Presence of Delays. Neural Computation, 2015, 27, 1825-1856.	2.2	32
25	Self-recalibrating classifiers for intracortical brainâ€“computer interfaces. Journal of Neural Engineering, 2014, 11, 026001.	3.5	51
26	Shedding light on learning. Nature Neuroscience, 2014, 17, 746-747.	14.8	1
27	Motor cortical control of movement speed with implications for brain-machine interface control. Journal of Neurophysiology, 2014, 112, 411-429.	1.8	52
28	Dimensionality reduction for large-scale neural recordings. Nature Neuroscience, 2014, 17, 1500-1509.	14.8	860
29	Neural constraints on learning. Nature, 2014, 512, 423-426.	27.8	535
30	DataHigh: graphical user interface for visualizing and interacting with high-dimensional neural activity. Journal of Neural Engineering, 2013, 10, 066012.	3.5	39
31	A high-performance neural prosthesis enabled by control algorithm design. Nature Neuroscience, 2012, 15, 1752-1757.	14.8	454
32	High-performance neural prosthetic control along nstructed paths. , 2011, , .		2
33	Single-Trial Neural Correlates of Arm Movement Preparation. Neuron, 2011, 71, 555-564.	8.1	216
34	Roles of Monkey Premotor Neuron Classes in Movement Preparation and Execution. Journal of Neurophysiology, 2010, 104, 799-810.	1.8	122
35	Stimulus onset quenches neural variability: a widespread cortical phenomenon. Nature Neuroscience, 2010, 13, 369-378.	14.8	907
36	Gaussian-Process Factor Analysis for Low-Dimensional Single-Trial Analysis of Neural Population Activity. Journal of Neurophysiology, 2009, 102, 614-635.	1.8	461

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37	Factor-Analysis Methods for Higher-Performance Neural Prostheses. Journal of Neurophysiology, 2009, 102, 1315-1330.	1.8	95
38	Cortical Neural Prosthesis Performance Improves When Eye Position Is Monitored. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2008, 16, 24-31.	4.9	23
39	Detecting Neural-State Transitions Using Hidden Markov Models for Motor Cortical Prostheses. Journal of Neurophysiology, 2008, 100, 2441-2452.	1.8	141
40	Toward Optimal Target Placement for Neural Prosthetic Devices. Journal of Neurophysiology, 2008, 100, 3445-3457.	1.8	24
41	Free-paced high-performance brainâ€“computer interfaces. Journal of Neural Engineering, 2007, 4, 336-347.	3.5	58
42	Single-Neuron Stability during Repeated Reaching in Macaque Premotor Cortex. Journal of Neuroscience, 2007, 27, 10742-10750.	3.6	145
43	Mixture of Trajectory Models for Neural Decoding of Goal-Directed Movements. Journal of Neurophysiology, 2007, 97, 3763-3780.	1.8	138
44	Reference Frames for Reach Planning in Macaque Dorsal Premotor Cortex. Journal of Neurophysiology, 2007, 98, 966-983.	1.8	106
45	Techniques for extracting single-trial activity patterns from large-scale neural recordings. Current Opinion in Neurobiology, 2007, 17, 609-618.	4.2	141
46	Expectation Propagation for Inference in Non-Linear Dynamical Models with Poisson Observations. , 2006, , .		6
47	A high-performance brainâ€“computer interface. Nature, 2006, 442, 195-198.	27.8	628
48	Neural Variability in Premotor Cortex Provides a Signature of Motor Preparation. Journal of Neuroscience, 2006, 26, 3697-3712.	3.6	369
49	Optimal Target Placement for Neural Communication Prostheses. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
50	Improving neural prosthetic system performance by combining plan and peri-movement activity. , 2004, 2004, 4516-9.		7
51	785 The Speed at Which Reach Movement Plans Can Be Decoded from the Cortex and Its Implications for High-performance Neural Prosthetic Arm Systems. Neurosurgery, 2004, 55, 481-481.	1.1	0