

# Byron M Yu

## List of Publications by Year in descending order

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Version: 2024-02-01

51  
papers

7,084  
citations

159525

30  
h-index

233338

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. <i>Nature Communications</i> , 2022, 13, 1099.	5.8	36
2	Learning is shaped by abrupt changes in neural engagement. <i>Nature Neuroscience</i> , 2021, 24, 727-736.	7.1	39
3	A Stable Population Code for Attention in Prefrontal Cortex Leads a Dynamic Attention Code in Visual Cortex. <i>Journal of Neuroscience</i> , 2021, 41, 9163-9176.	1.7	12
4	Bridging neuronal correlations and dimensionality reduction. <i>Neuron</i> , 2021, 109, 2740-2754.e12.	3.8	24
5	How learning unfolds in the brain: toward an optimization view. <i>Neuron</i> , 2021, 109, 3720-3735.	3.8	19
6	Principles of Corticocortical Communication: Proposed Schemes and Design Considerations. <i>Trends in Neurosciences</i> , 2020, 43, 725-737.	4.2	67
7	Slow Drift of Neural Activity as a Signature of Impulsivity in Macaque Visual and Prefrontal Cortex. <i>Neuron</i> , 2020, 108, 551-567.e8.	3.8	82
8	Statistical methods for dissecting interactions between brain areas. <i>Current Opinion in Neurobiology</i> , 2020, 65, 59-69.	2.0	41
9	Stabilization of a brain-computer interface via the alignment of low-dimensional spaces of neural activity. <i>Nature Biomedical Engineering</i> , 2020, 4, 672-685.	11.6	118
10	Bridging large-scale neuronal recordings and large-scale network models using dimensionality reduction. <i>Current Opinion in Neurobiology</i> , 2019, 55, 40-47.	2.0	51
11	New neural activity patterns emerge with long-term learning. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 15210-15215.	3.3	145
12	Cortical Areas Interact through a Communication Subspace. <i>Neuron</i> , 2019, 102, 249-259.e4.	3.8	239
13	Learning by neural reassociation. <i>Nature Neuroscience</i> , 2018, 21, 607-616.	7.1	170
14	Computational Neuroscience: Mathematical and Statistical Perspectives. <i>Annual Review of Statistics and Its Application</i> , 2018, 5, 183-214.	4.1	48
15	Distinct population codes for attention in the absence and presence of visual stimulation. <i>Nature Communications</i> , 2018, 9, 4382.	5.8	30
16	Constraints on neural redundancy. <i>ELife</i> , 2018, 7, .	2.8	56
17	A Path to Understanding How Motor Cortex Influences Muscle Activity. <i>Neuron</i> , 2017, 95, 476-478.	3.8	2
18	Population activity structure of excitatory and inhibitory neurons. <i>PLoS ONE</i> , 2017, 12, e0181773.	1.1	24

#	ARTICLE	IF	CITATIONS
19	Fault tolerance in the brain. <i>Nature</i> , 2016, 532, 449-450.	13.7	6
20	Brain-computer interfaces for dissecting cognitive processes underlying sensorimotor control. <i>Current Opinion in Neurobiology</i> , 2016, 37, 53-58.	2.0	82
21	Scaling Properties of Dimensionality Reduction for Neural Populations and Network Models. <i>PLoS Computational Biology</i> , 2016, 12, e1005141.	1.5	76
22	Stimulus-Driven Population Activity Patterns in Macaque Primary Visual Cortex. <i>PLoS Computational Biology</i> , 2016, 12, e1005185.	1.5	42
23	Internal models for interpreting neural population activity during sensorimotor control. <i>ELife</i> , 2015, 4, .	2.8	41
24	Extracting Low-Dimensional Latent Structure from Time Series in the Presence of Delays. <i>Neural Computation</i> , 2015, 27, 1825-1856.	1.3	32
25	Self-recalibrating classifiers for intracortical brain-computer interfaces. <i>Journal of Neural Engineering</i> , 2014, 11, 026001.	1.8	51
26	Shedding light on learning. <i>Nature Neuroscience</i> , 2014, 17, 746-747.	7.1	1
27	Motor cortical control of movement speed with implications for brain-machine interface control. <i>Journal of Neurophysiology</i> , 2014, 112, 411-429.	0.9	52
28	Dimensionality reduction for large-scale neural recordings. <i>Nature Neuroscience</i> , 2014, 17, 1500-1509.	7.1	860
29	Neural constraints on learning. <i>Nature</i> , 2014, 512, 423-426.	13.7	535
30	DataHigh: graphical user interface for visualizing and interacting with high-dimensional neural activity. <i>Journal of Neural Engineering</i> , 2013, 10, 066012.	1.8	39
31	A high-performance neural prosthesis enabled by control algorithm design. <i>Nature Neuroscience</i> , 2012, 15, 1752-1757.	7.1	454
32	High-performance neural prosthetic control along instructed paths. , 2011, , .		2
33	Single-Trial Neural Correlates of Arm Movement Preparation. <i>Neuron</i> , 2011, 71, 555-564.	3.8	216
34	Roles of Monkey Premotor Neuron Classes in Movement Preparation and Execution. <i>Journal of Neurophysiology</i> , 2010, 104, 799-810.	0.9	122
35	Stimulus onset quenches neural variability: a widespread cortical phenomenon. <i>Nature Neuroscience</i> , 2010, 13, 369-378.	7.1	907
36	Gaussian-Process Factor Analysis for Low-Dimensional Single-Trial Analysis of Neural Population Activity. <i>Journal of Neurophysiology</i> , 2009, 102, 614-635.	0.9	461

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37	Factor-Analysis Methods for Higher-Performance Neural Prostheses. Journal of Neurophysiology, 2009, 102, 1315-1330.	0.9	95
38	Cortical Neural Prosthesis Performance Improves When Eye Position Is Monitored. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2008, 16, 24-31.	2.7	23
39	Detecting Neural-State Transitions Using Hidden Markov Models for Motor Cortical Prostheses. Journal of Neurophysiology, 2008, 100, 2441-2452.	0.9	141
40	Toward Optimal Target Placement for Neural Prosthetic Devices. Journal of Neurophysiology, 2008, 100, 3445-3457.	0.9	24
41	Free-paced high-performance brain-computer interfaces. Journal of Neural Engineering, 2007, 4, 336-347.	1.8	58
42	Single-Neuron Stability during Repeated Reaching in Macaque Premotor Cortex. Journal of Neuroscience, 2007, 27, 10742-10750.	1.7	145
43	Mixture of Trajectory Models for Neural Decoding of Goal-Directed Movements. Journal of Neurophysiology, 2007, 97, 3763-3780.	0.9	138
44	Reference Frames for Reach Planning in Macaque Dorsal Premotor Cortex. Journal of Neurophysiology, 2007, 98, 966-983.	0.9	106
45	Techniques for extracting single-trial activity patterns from large-scale neural recordings. Current Opinion in Neurobiology, 2007, 17, 609-618.	2.0	141
46	Expectation Propagation for Inference in Non-Linear Dynamical Models with Poisson Observations. , 2006, , .		6
47	A high-performance brain-computer interface. Nature, 2006, 442, 195-198.	13.7	628
48	Neural Variability in Premotor Cortex Provides a Signature of Motor Preparation. Journal of Neuroscience, 2006, 26, 3697-3712.	1.7	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.	0.6	0