Bruno B Averbeck

List of Publications by Year
in descending order

146	8,736	47006 47	54911 84
papers	citations	h-index	g-index

156	156	156	8622
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Reinforcement-learning in fronto-striatal circuits. Neuropsychopharmacology, 2022, 47, 147-162.	5.4	41
2	The importance of pro-social processing, and ameliorating dysfunction in schizophrenia. An FMRI study of oxytocin. Schizophrenia Research: Cognition, 2022, 27, 100221.	1.3	8
3	Differential coding of goals and actions in ventral and dorsal corticostriatal circuits during goal-directed behavior. Cell Reports, 2022, 38, 110198.	6.4	12
4	The role of cognitive control in the positive symptoms of psychosis. NeuroImage: Clinical, 2022, 34, 103004.	2.7	6
5	Self-tuition as an essential design feature of the brain. Philosophical Transactions of the Royal Society B: Biological Sciences, 2022, 377, 20200530.	4.0	4
6	Computational modeling of threat learning reveals links with anxiety and neuroanatomy in humans. ELife, 2022, 11, .	6.0	5
7	Hierarchical Reinforcement Learning, Sequential Behavior, and the Dorsal Frontostriatal System. Journal of Cognitive Neuroscience, 2022, , 1-19.	2.3	1
8	Pruning recurrent neural networks replicates adolescent changes in working memory and reinforcement learning. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	13
9	Shared mechanisms mediate the explore-exploit tradeoff in macaques and humans. Neuron, 2022, 110, 1751-1753.	8.1	1
10	Neural correlates of risky decision making in Parkinsonâ€™s disease patients with impulse control disorders. Experimental Brain Research, 2022, 240, 2241-2253.	1.5	3
11	Inference as a fundamental process in behavior. Current Opinion in Behavioral Sciences, 2021, 38, 8-13.	3.9	11
12	Effects of Amygdala Lesions on Object-Based Versus Action-Based Learning in Macaques. Cerebral Cortex, 2021, 31, 529-546.	2.9	14
13	Cognitive control network connectivity differentially disrupted in treatment resistant schizophrenia. NeuroImage: Clinical, 2021, 30, 102631.	2.7	13
14	Reward-related choices determine information timing and flow across macaque lateral prefrontal cortex. Nature Communications, 2021, 12, 894.	12.8	13
15	Deliberative Choice Strategies in Youths: Relevance to Transdiagnostic Anxiety Symptoms. Clinical Psychological Science, 2021, 9, 979-989.	4.0	2
16	Individual associations of adolescent alcohol use disorder versus cannabis use disorder symptoms in neural prediction error signaling and the response to novelty. Developmental Cognitive Neuroscience, 2021, 48, 100944.	4.0	13
17	Fluoxetine incentivizes ventral striatum encoding of reward and punishment. Neuropsychopharmacology, 2021, 46, 2041-2042.	5.4	1
18	Intelligence matters for stochastic feedback processing during sequence learning in adolescents and young adults. Intelligence, 2021, 86, 101542.	3.0	3

#	Article	IF	Citations
19	A convolutional neural network for estimating synaptic connectivity from spike trains. Scientific Reports, 2021, 11, 12087.	3.3	7
20	Organization of parietoprefrontal and temporoprefrontal networks in the macaque. Journal of Neurophysiology, 2021, 126, 1289-1309.	1.8	8
21	Correlates of Auditory Decision-Making in Prefrontal, Auditory, and Basal Lateral Amygdala Cortical Areas. Journal of Neuroscience, 2021, 41, 1301-1316.	3.6	7
22	Mortimer Mishkin (1926â€“2021): A life of science with humility and grace. Neuron, 2021, 109, 3392-3394.	8.1	0
23	Anticipatory Threat Responding: Associations With Anxiety, Development, and Brain Structure. Biological Psychiatry, 2020, 87, 916-925.	1.3	48
24	Learning to select actions shapes recurrent dynamics in the corticostriatal system. Neural Networks, 2020, 132, 375-393.	5.9	11
25	Hypothalamic Interactions with Large-Scale Neural Circuits Underlying Reinforcement Learning and Motivated Behavior. Trends in Neurosciences, 2020, 43, 681-694.	8.6	30
26	Primate Orbitofrontal Cortex Codes Information Relevant for Managing Exploreâ€“Exploit Tradeoffs. Journal of Neuroscience, 2020, 40, 2553-2561.	3.6	45
27	Information-Limiting Correlations in Large Neural Populations. Journal of Neuroscience, 2020, 40, 1668-1678.	3.6	62
28	Dimensionality, information and learning in prefrontal cortex. PLoS Computational Biology, 2020, 16, e1007514.	3.2	29
29	Prefrontal Cortex Predicts State Switches during Reversal Learning. Neuron, 2020, 106, 1044-1054.e4.	8.1	78
30	Dimensionality, information and learning in prefrontal cortex. , 2020, 16, e1007514.		0
31	Dimensionality, information and learning in prefrontal cortex. , 2020, 16, e1007514.		0
32	Dimensionality, information and learning in prefrontal cortex. , 2020, 16, e1007514.		0
33	Dimensionality, information and learning in prefrontal cortex. , 2020, 16, e1007514.		0
34	Dopamine manipulations drive changes in information sampling in healthy volunteers. Journal of Psychopharmacology, 2019, 33, 670-677.	4.0	4
35	Subcortical Substrates of Explore-Exploit Decisions in Primates. Neuron, 2019, 103, 533-545.e5.	8.1	87
36	Cross-species convergence in pupillary response: understanding human anxiety via non-human primate amygdala lesion. Social Cognitive and Affective Neuroscience, 2019, 14, 591-599.	3.0	7

#	Article	IF	Citations
37	Directional interconnectivity of the human amygdala, fusiform gyrus, and orbitofrontal cortex in emotional scene perception. Journal of Neurophysiology, 2019, 122, 1530-1537.	1.8	26
38	Exposure therapy for pediatric irritability: Theory and potential mechanisms. Behaviour Research and Therapy, 2019, 118, 141-149.	3.1	36
39	A Comparison of Auditory Oddball Responses in Dorsolateral Prefrontal Cortex, Basolateral Amygdala, and Auditory Cortex of Macaque. Journal of Cognitive Neuroscience, 2019, 31, 1054-1064.	2.3	32
40	Looking for Mr(s) Right: Decision bias can prevent us from finding the most attractive face. Cognitive Psychology, 2019, 111, 1-14.	2.2	6
41	Reinforcement learning in artificial and biological systems. Nature Machine Intelligence, 2019, 1, 133-143.	16.0	157
42	S18. Computational Modeling of Threat Learning: Associations With Anxiety, Age, and Brain Structure. Biological Psychiatry, 2019, 85, S303.	1.3	0
43	Pavlovian patterns in the amygdala. Nature Neuroscience, 2019, 22, 1949-1950.	14.8	1
44	Signature Patterns for Top-Down and Bottom-Up Information Processing via Cross-Frequency Coupling in Macaque Auditory Cortex. ENeuro, 2019, 6, ENEURO.0467-18.2019.	1.9	21
45	Reflection impulsivity perceptual decisionâ€making in patients with restless legs syndrome. Annals of Clinical and Translational Neurology, 2018, 5, 315-322.	3.7	10
46	Differential neural reward mechanisms in treatment-responsive and treatment-resistant schizophrenia. Psychological Medicine, 2018, 48, 2418-2427.	4.5	29
47	The value of novelty in schizophrenia. Schizophrenia Research, 2018, 192, 287-293.	2.0	15
48	Ventral striatumâ€™s role in learning from gains and losses. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E12398-E12406.	7.1	28
49	Impulsivity in Parkinsonâ€™s Disease Is Associated With Alterations in Affective and Sensorimotor Striatal Networks. Frontiers in Neurology, 2018, 9, 279.	2.4	26
50	Amygdala Contributions to Stimulusâ€“Reward Encoding in the Macaque Medial and Orbital Frontal Cortex during Learning. Journal of Neuroscience, 2017, 37, 2186-2202.	3.6	67
51	Effects of Ventral Striatum Lesions on Stimulus-Based versus Action-Based Reinforcement Learning. Journal of Neuroscience, 2017, 37, 6902-6914.	3.6	43
52	The Computational and Neural Basis of Rhythmic Timing in Medial Premotor Cortex. Journal of Neuroscience, 2017, 37, 4552-4564.	3.6	69
53	Motivational neural circuits underlying reinforcement learning. Nature Neuroscience, 2017, 20, 505-512.	14.8	144
54	Unbelievable: Neural Correlate of the Feedback Negativity in the Anterior Cingulate. Neuron, 2017, 95, 237-239.	8.1	5

#	Article	IF	Citations
55	Anxiety symptoms and children's eye gaze during fear learning. Journal of Child Psychology and Psychiatry and Allied Disciplines, 2017, 58, 1276-1286.	5.2	26
56	High channel count single-unit recordings from nonhuman primate frontal cortex. Journal of Neuroscience Methods, 2017, 289, 39-47.	2.5	38
57	Prediction Error Representation in Individuals With Generalized Anxiety Disorder During Passive Avoidance. American Journal of Psychiatry, 2017, 174, 110-117.	7.2	52
58	Amygdala and ventral striatum population codes implement multiple learning rates for reinforcement learning. , 2017, , .		10
59	Ventral striatum lesions do not affect reinforcement learning with deterministic outcomes on slow time scales.. Behavioral Neuroscience, 2017, 131, 385-391.	1.2	4
60	Computational Architecture of the Parieto-Frontal Network Underlying Cognitive-Motor Control in Monkeys. ENeuro, 2017, 4, ENEURO.0306-16.2017.	1.9	62
61	376. Subcortical Contributions to the Explore-Exploit Tradeoff. Biological Psychiatry, 2017, 81, S154.	1.3	2
62	Amygdala and Ventral Striatum Make Distinct Contributions to Reinforcement Learning. Neuron, 2016, 92, 505-517.	8.1	112
63	Blocking serotonin but not dopamine reuptake alters neural processing during perceptual decision making.. Behavioral Neuroscience, 2016, 130, 461-468.	1.2	7
64	Using model systems to understand errant plasticity mechanisms in psychiatric disorders. Nature Neuroscience, 2016, 19, 1418-1425.	14.8	20
65	Jumping to conclusions in untreated patients with Parkinson's disease. Neuropsychologia, 2016, 85, 19-23.	1.6	19
66	Distributed acoustic cues for caller identity in macaque vocalization. Royal Society Open Science, 2015, 2, 150432.	2.4	15
67	Jumping to conclusions in schizophrenia. Neuropsychiatric Disease and Treatment, 2015, 11, 1615.	2.2	49
68	Injection of a Dopamine Type 2 Receptor Antagonist into the Dorsal Striatum Disrupts Choices Driven by Previous Outcomes, But Not Perceptual Inference. Journal of Neuroscience, 2015, 35, 6298-6306.	3.6	49
69	Amygdala lesions in rhesus macaques decrease attention to threat. Nature Communications, 2015, 6, 10161.	12.8	60
70	Reversal Learning and Dopamine: A Bayesian Perspective. Journal of Neuroscience, 2015, 35, 2407-2416.	3.6	127
71	The effects of a single dose of oxytocin on working memory in schizophrenia. Schizophrenia Research, 2015, 162, 62-63.	2.0	28
72	Frontal-Parietal and Limbic-Striatal Activity Underlies Information Sampling in the Best Choice Problem. Cerebral Cortex, 2015, 25, 972-982.	2.9	25

#	Article	IF	Citations
73	Neurophysiological effects of acute oxytocin administration: systematic review and meta-analysis of placebo-controlled imaging studies. Journal of Psychiatry and Neuroscience, 2015, 40, E1-E22.	2.4	159
74	Oxytocin modulates fMRI responses to facial expression in macaques. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E3123-30.	7.1	46
75	Theory of Choice in Bandit, Information Sampling and Foraging Tasks. PLoS Computational Biology, 2015, 11, e1004164.	3.2	67
76	A systematic approach to selecting task relevant neurons. Journal of Neuroscience Methods, 2015, 245, 156-168.	2.5	4
77	The Role of Frontal Cortical and Medial-Temporal Lobe Brain Areas in Learning a Bayesian Prior Belief on Reversals. Journal of Neuroscience, 2015, 35, 11751-11760.	3.6	66
78	Real-Time Dopamine Measurement in Awake Monkeys. PLoS ONE, 2014, 9, e98692.	2.5	40
79	Oxytocin enhances attention to the eye region in rhesus monkeys. Frontiers in Neuroscience, 2014, 8, 41.	2.8	64
80	In a Rush to Decide: Deep Brain Stimulation and Dopamine Agonist Therapy in Parkinson's Disease. Journal of Parkinson's Disease, 2014, 4, 579-583.	2.8	9
81	Stochastic reinforcement benefits skill acquisition. Learning and Memory, 2014, 21, 140-142.	1.3	31
82	Perceptual decision-making in patients with Parkinsonâ€™s disease. Journal of Psychopharmacology, 2014, 28, 1149-1154.	4.0	22
83	Brain Structural Substrates of Reward Dependence during Behavioral Performance. Journal of Neuroscience, 2014, 34, 16433-16441.	3.6	20
84	Dopamine modulates novelty seeking behavior during decision making.. Behavioral Neuroscience, 2014, 128, 556-566.	1.2	183
85	Differential Coding of Conspecific Vocalizations in the Ventral Auditory Cortical Stream. Journal of Neuroscience, 2014, 34, 4665-4676.	3.6	39
86	Intranasal oxytocin effects on social cognition: A critique. Brain Research, 2014, 1580, 69-77.	2.2	82
87	Cross-Frequency Power Coupling Between Hierarchically Organized Face-Selective Areas. Cerebral Cortex, 2014, 24, 2409-2420.	2.9	25
88	Estimates of Projection Overlap and Zones of Convergence within Frontal-Striatal Circuits. Journal of Neuroscience, 2014, 34, 9497-9505.	3.6	140
89	Do Parkinson's Disease Patients Have Deficits in Sequential Sampling Tasks?. Movement Disorders Clinical Practice, 2014, 1, 325-328.	1.5	1
90	CSF and Blood Oxytocin Concentration Changes following Intranasal Delivery in Macaque. PLoS ONE, 2014, 9, e103677.	2.5	146

#	Article	IF	Citations
91	Looking into the future. ELife, 2014, 3, e03146.	6.0	2
92	Pathological Choice: The Neuroscience of Gambling and Gambling Addiction. Journal of Neuroscience, 2013, 33, 17617-17623.	3.6	87
93	Uncertainty about mapping future actions into rewards may underlie performance on multiple measures of impulsivity in behavioral addiction: Evidence from Parkinson's disease.. Behavioral Neuroscience, 2013, 127, 245-255.	1.2	40
94	Increased reflection impulsivity in patients with ephedroneâ€induced <scp>P</scp>arkinsonism. Addiction, 2013, 108, 771-779.	3.3	25
95	Dopamine Agonists Rather than Deep Brain Stimulation Cause Reflection Impulsivity in Parkinson's Disease. Journal of Parkinson's Disease, 2013, 3, 139-144.	2.8	39
96	Performance on a probabilistic inference task in healthy subjects receiving ketamine compared with patients with schizophrenia. Journal of Psychopharmacology, 2012, 26, 1211-1217.	4.0	24
97	Dynamic and Static Facial Expressions Decoded from Motion-Sensitive Areas in the Macaque Monkey. Journal of Neuroscience, 2012, 32, 15952-15962.	3.6	67
98	Action Selection and Action Value in Frontal-Striatal Circuits. Neuron, 2012, 74, 947-960.	8.1	140
99	Spontaneous High-Gamma Band Activity Reflects Functional Organization of Auditory Cortex in the Awake Macaque. Neuron, 2012, 74, 899-910.	8.1	69
100	Sequence Learning Under Uncertainty in Children: Self-Reflection vs. Self-Assertion. Frontiers in Psychology, 2012, 3, 127.	2.1	14
101	Decision making, impulsivity, and addictions: Do Parkinson's disease patients jump to conclusions?. Movement Disorders, 2012, 27, 1137-1145.	3.9	85
102	Effects of Dopamine on Sensitivity to Social Bias in Parkinson's Disease. PLoS ONE, 2012, 7, e32889.	2.5	9
103	A Selective Emotional Decision-Making Bias Elicited by Facial Expressions. PLoS ONE, 2012, 7, e33461.	2.5	30
104	Probabilistic learning and inference in schizophrenia. Schizophrenia Research, 2011, 127, 115-122.	2.0	83
105	Clinical aspects of impulsive compulsive behaviours in Parkinson's disease. Journal of the Neurological Sciences, 2011, 310, 183-188.	0.6	42
106	Stroop test performance in impulsive and non impulsive patients with Parkinsonâ€™s disease. Parkinsonism and Related Disorders, 2011, 17, 212-214.	2.2	65
107	Altruistic punishment in patients with Parkinson's disease with and without impulsive behaviour. Neuropsychologia, 2011, 49, 103-107.	1.6	18
108	Novelty seeking behaviour in Parkinson's disease. Neuropsychologia, 2011, 49, 2483-2488.	1.6	66

#	Article	IF	Citations
109	Neural Correlates of Sequence Learning with Stochastic Feedback. Journal of Cognitive Neuroscience, 2011, 23, 1346-1357.	2.3	4
110	Effects of Emotional Preferences on Value-based Decision-making Are Mediated by Mentalizing and Not Reward Networks. Journal of Cognitive Neuroscience, 2011, 23, 2197-2210.	2.3	26
111	Effects of dopamine depletion on information flow between the subthalamic nucleus and external globus pallidus. Journal of Neurophysiology, 2011, 106, 2012-2023.	1.8	49
112	Parietal Cortex and Insula Relate to Evidence Seeking Relevant to Reward-Related Decisions. Journal of Neuroscience, 2011, 31, 17572-17582.	3.6	98
113	Salivary cortisol levels in Parkinson's disease and its correlation to risk behaviour. Journal of Neurology, Neurosurgery and Psychiatry, 2011, 82, 1107-1111.	1.9	46
114	Risk and learning in impulsive and nonimpulsive patients with Parkinson's disease. Movement Disorders, 2010, 25, 2203-2210.	3.9	88
115	Understanding the parietal lobe syndrome from a neurophysiological and evolutionary perspective. European Journal of Neuroscience, 2010, 31, 2320-2340.	2.6	75
116	Effects of dopamine medication on sequence learning with stochastic feedback in Parkinsonâ€™s disease. Frontiers in Systems Neuroscience, 2010, 4, .	2.5	22
117	Oxytocin Decreases Aversion to Angry Faces in an Associative Learning Task. Neuropsychopharmacology, 2010, 35, 2502-2509.	5.4	76
118	Rapid Sequences of Population Activity Patterns Dynamically Encode Task-Critical Spatial Information in Parietal Cortex. Journal of Neuroscience, 2010, 30, 11640-11653.	3.6	104
119	Oxytocin and the salience of social cues. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9033-9034.	7.1	53
120	Effects of Dopamine Depletion on Network Entropy in the External Globus Pallidus. Journal of Neurophysiology, 2009, 102, 1092-1102.	1.8	46
121	Resonance in subthalamo-cortical circuits in Parkinson's disease. Brain, 2009, 132, 2139-2150.	7.6	103
122	Statistical Analysis of Parieto-Frontal Cognitive-Motor Networks. Journal of Neurophysiology, 2009, 102, 1911-1920.	1.8	45
123	Differential contribution of superior parietal and dorsalâ€“lateral prefrontal cortices in copying. Cortex, 2009, 45, 432-441.	2.4	17
124	Poisson or Not Poisson: Differences in Spike Train Statistics between Parietal Cortical Areas. Neuron, 2009, 62, 310-311.	8.1	23
125	The Primate Cortical Auditory System and Neural Representation of Conspecific Vocalizations. Annual Review of Neuroscience, 2009, 32, 315-346.	10.7	161
126	Integration of social and utilitarian factors in decision making.. Emotion, 2009, 9, 599-608.	1.8	33

#	Article	IF	Citations
127	The Statistical Neuroanatomy of Frontal Networks in the Macaque. PLoS Computational Biology, 2008, 4, e1000050.	3.2	94
128	Neural Ensemble Decoding Reveals a Correlate of Viewer- to Object-Centered Spatial Transformation in Monkey Parietal Cortex. Journal of Neuroscience, 2008, 28, 5218-5228.	3.6	75
129	Prefrontal Neural Correlates of Memory for Sequences. Journal of Neuroscience, 2007, 27, 2204-2211.	3.6	102
130	Effects of Noise Correlations on Information Encoding and Decoding. Journal of Neurophysiology, 2006, 95, 3633-3644.	1.8	196
131	Activity in prefrontal cortex during dynamic selection of action sequences. Nature Neuroscience, 2006, 9, 276-282.	14.8	128
132	Neural correlations, population coding and computation. Nature Reviews Neuroscience, 2006, 7, 358-366.	10.2	1,419
133	Probabilistic Encoding of Vocalizations in Macaque Ventral Lateral Prefrontal Cortex. Journal of Neuroscience, 2006, 26, 11023-11033.	3.6	54
134	Integration of Auditory and Visual Communication Information in the Primate Ventrolateral Prefrontal Cortex. Journal of Neuroscience, 2006, 26, 11138-11147.	3.6	243
135	Neural Representation of Vocalizations in the Primate Ventrolateral Prefrontal Cortex. Journal of Neurophysiology, 2005, 93, 734-747.	1.8	207
136	Parietal Representation of Hand Velocity in a Copy Task. Journal of Neurophysiology, 2005, 93, 508-518.	1.8	46
137	Dynamics of Parietal Neural Activity during Spatial Cognitive Processing. Neuron, 2005, 47, 885-891.	8.1	49
138	Learning and production of movement sequences: Behavioral, neurophysiological, and modeling perspectives. Human Movement Science, 2004, 23, 699-746.	1.4	183
139	Participation of primary motor cortical neurons in a distributed network during maze solution: representation of spatial parameters and time-course comparison with parietal area 7a. Experimental Brain Research, 2004, 158, 28-34.	1.5	24
140	Coding and transmission of information by neural ensembles. Trends in Neurosciences, 2004, 27, 225-230.	8.6	174
141	Principal and Independent Components of Macaque Vocalizations: Constructing Stimuli to Probe High-Level Sensory Processing. Journal of Neurophysiology, 2004, 91, 2897-2909.	1.8	19
142	Neural activity in prefrontal cortex during copying geometrical shapes. Experimental Brain Research, 2003, 150, 127-141.	1.5	93
143	Neural activity in prefrontal cortex during copying geometrical shapes. Experimental Brain Research, 2003, 150, 142-153.	1.5	93
144	Neural Noise and Movement-Related Codes in the Macaque Supplementary Motor Area. Journal of Neuroscience, 2003, 23, 7630-7641.	3.6	89

#	Article	IF	Citations
145	Parallel processing of serial movements in prefrontal cortex. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 13172-13177.	7.1	241
146	Mental Maze Solving. Journal of Cognitive Neuroscience, 2000, 12, 813-827.	2.3	35