Canonical Microcircuits for Predictive Coding

Neuron 76, 695-711 DOI: 10.1016/j.neuron.2012.10.038

Citation Report

#	Article	IF	CITATIONS
1	Repetition priming and repetition suppression: Multiple mechanisms in need of testing. Cognitive Neuroscience, 2012, 3, 250-259.	0.6	26
2	Predictive coding, precision and synchrony. Cognitive Neuroscience, 2012, 3, 238-239.	0.6	72
3	How Prediction Errors Shape Perception, Attention, and Motivation. Frontiers in Psychology, 2012, 3, 548.	1.1	341
4	Predictive Suppression of Cortical Excitability and Its Deficit in Schizophrenia. Journal of Neuroscience, 2013, 33, 11692-11702.	1.7	106
5	Expectation and Attention in Hierarchical Auditory Prediction. Journal of Neuroscience, 2013, 33, 11194-11205.	1.7	245
6	Nonlinear coupling between occipital and motor cortex during motor imagery: A dynamic causal modeling study. NeuroImage, 2013, 71, 104-113.	2.1	19
7	Reflections on agranular architecture: predictive coding in the motor cortex. Trends in Neurosciences, 2013, 36, 706-716.	4.2	185
8	Cortical High-Density Counterstream Architectures. Science, 2013, 342, 1238406.	6.0	468
9	Structural and Functional Brain Networks: From Connections to Cognition. Science, 2013, 342, 1238411.	6.0	1,543
10	Circular inferences in schizophrenia. Brain, 2013, 136, 3227-3241.	3.7	153
11	Integration of visual motion and locomotion in mouse visual cortex. Nature Neuroscience, 2013, 16, 1864-1869.	7.1	353
12	Understanding DCM: Ten simple rules for the clinician. NeuroImage, 2013, 83, 542-549.	2.1	65
13	A Î,–γ Oscillation Code for Neuronal Coordination during Motor Behavior. Journal of Neuroscience, 2013, 33, 18515-18530.	1.7	72
14	Audio–visual congruency alters power and coherence of oscillatory activity within and between cortical areas. NeuroImage, 2013, 79, 111-120.	2.1	29
15	Broadband Cortical Desynchronization Underlies the Human Psychedelic State. Journal of Neuroscience, 2013, 33, 15171-15183.	1.7	364
16	Network interactions: non-geniculate input to V1. Current Opinion in Neurobiology, 2013, 23, 195-201.	2.0	181
17	Sparse reconstruction of brain circuits: Or, how to survive without a microscopic connectome. NeuroImage, 2013, 80, 27-36.	2.1	29
18	Lineage-dependent circuit assembly in the neocortex. Development (Cambridge), 2013, 140, 2645-2655.	1.2	54

2

#	Article	IF	CITATIONS
19	Noninvasive brain stimulation: from physiology to network dynamics and back. Nature Neuroscience, 2013, 16, 838-844.	7.1	466
20	Robust Gamma Coherence between Macaque V1 and V2 by Dynamic Frequency Matching. Neuron, 2013, 78, 523-536.	3.8	234
21	Free Energy, Precision and Learning: The Role of Cholinergic Neuromodulation. Journal of Neuroscience, 2013, 33, 8227-8236.	1.7	252
22	Dynamic causal modelling of lateral interactions in the visual cortex. NeuroImage, 2013, 66, 563-576.	2.1	58
23	Stochastic Computations in Cortical Microcircuit Models. PLoS Computational Biology, 2013, 9, e1003311.	1.5	50
24	A Neurocomputational Model of the Mismatch Negativity. PLoS Computational Biology, 2013, 9, e1003288.	1.5	96
25	Optogenetics in the behaving rat: integration of diverse new technologies in a vital animal model. Optogenetics, 2013, 1, 1-17.	3.0	20
26	Gaze direction affects linear selfâ€motion heading discrimination in humans. European Journal of Neuroscience, 2013, 38, 3248-3260.	1.2	5
27	The fantastic organ. Brain, 2013, 136, 1328-1332.	3.7	15
28	Attention Sharpens the Distinction between Expected and Unexpected Percepts in the Visual Brain. Journal of Neuroscience, 2013, 33, 18438-18447.	1.7	111
29	The Computational Anatomy of Psychosis. Frontiers in Psychiatry, 2013, 4, 47.	1.3	608
30	Action Prediction in Younger versus Older Adults: Neural Correlates of Motor Familiarity. PLoS ONE, 2013, 8, e64195.	1.1	37
31	Consciousness in humans and non-human animals: recent advances and future directions. Frontiers in Psychology, 2013, 4, 625.	1.1	170
32	Exploration, novelty, surprise, and free energy minimization. Frontiers in Psychology, 2013, 4, 710.	1.1	126
33	Dysconnectivity in the Frontoparietal Attention Network in Schizophrenia. Frontiers in Psychiatry, 2013, 4, 176.	1.3	53
34	Neural masses and fields in dynamic causal modeling. Frontiers in Computational Neuroscience, 2013, 7, 57.	1.2	210
35	Quantifying network properties in multi-electrode recordings: spatiotemporal characterization and inter-trial variation of evoked gamma oscillations in mouse somatosensory cortex in vitro. Frontiers in Computational Neuroscience, 2013, 7, 134.	1.2	7
36	Minimal self-models and the free energy principle. Frontiers in Human Neuroscience, 2013, 7, 547.	1.0	165

#	Article	IF	CITATIONS
37	Do cortical gamma oscillations promote or suppress perception? An under-asked question with an over-assumed answer. Frontiers in Human Neuroscience, 2013, 7, 595.	1.0	57
38	The anatomy of choice: active inference and agency. Frontiers in Human Neuroscience, 2013, 7, 598.	1.0	236
39	The functional anatomy of attention: a DCM study. Frontiers in Human Neuroscience, 2013, 7, 784.	1.0	33
40	Inter-laminar microcircuits across neocortex: repair and augmentation. Frontiers in Systems Neuroscience, 2013, 7, 80.	1.2	35
41	Rhythmic complexity and predictive coding: a novel approach to modeling rhythm and meter perception in music. Frontiers in Psychology, 2014, 5, 1111.	1.1	156
42	Contributions of cortical feedback to sensory processing in primary visual cortex. Frontiers in Psychology, 2014, 5, 1223.	1.1	47
43	Adaptive learning in a compartmental model of visual cortexââ,¬â€how feedback enables stable category learning and refinement. Frontiers in Psychology, 2014, 5, 1287.	1.1	5
44	Bilateral gain control; an "innate predisposition―for all sorts of things. Frontiers in Neurorobotics, 2014, 8, 9.	1.6	1
45	Two distinct olfactory bulb sublaminar networks involved in gamma and beta oscillation generation: a CSD study in the anesthetized rat. Frontiers in Neural Circuits, 2014, 8, 88.	1.4	32
46	Coal-directed control with cortical units that are gated by both top-down feedback and oscillatory coherence. Frontiers in Neural Circuits, 2014, 8, 94.	1.4	3
47	Hierarchical representation of shapes in visual cortexââ,¬â€from localized features to figural shape segregation. Frontiers in Computational Neuroscience, 2014, 8, 93.	1.2	18
48	Thalamo-cortical cross-frequency coupling detected with MEG. Frontiers in Human Neuroscience, 2014, 8, 187.	1.0	9
49	An aberrant precision account of autism. Frontiers in Human Neuroscience, 2014, 8, 302.	1.0	452
50	Investigating bottom-up auditory attention. Frontiers in Human Neuroscience, 2014, 8, 327.	1.0	72
51	Model averaging, optimal inference, and habit formation. Frontiers in Human Neuroscience, 2014, 8, 457.	1.0	83
52	Visual mismatch negativity: a predictive coding view. Frontiers in Human Neuroscience, 2014, 8, 666.	1.0	232
53	An information theory account of cognitive control. Frontiers in Human Neuroscience, 2014, 8, 680.	1.0	133
54	Local active information storage as a tool to understand distributed neural information processing. Frontiers in Neuroinformatics, 2014, 8, 1.	1.3	168

#	Article	IF	Citations
55	Reduced predictable information in brain signals in autism spectrum disorder. Frontiers in Neuroinformatics, 2014, 8, 9.	1.3	45
56	Speech perception under adverse conditions: insights from behavioral, computational, and neuroscience research. Frontiers in Systems Neuroscience, 2014, 7, 126.	1.2	56
57	Cortico-cortical communication dynamics. Frontiers in Systems Neuroscience, 2014, 8, 19.	1.2	25
58	Beta drives brain beats. Frontiers in Systems Neuroscience, 2014, 8, 155.	1.2	22
59	Neural rhythmic symphony of human walking observation: Upside-down and Uncoordinated condition on cortical theta, alpha, beta and gamma oscillations. Frontiers in Systems Neuroscience, 2014, 8, 169.	1.2	24
60	Spiking in auditory cortex following thalamic stimulation is dominated by cortical network activity. Frontiers in Systems Neuroscience, 2014, 8, 170.	1.2	29
61	Preferential effect of isoflurane on top-down vs. bottom-up pathways in sensory cortex. Frontiers in Systems Neuroscience, 2014, 8, 191.	1.2	85
62	Anisotropy of ongoing neural activity in the primate visual cortex. Eye and Brain, 2014, 6, 113.	3.8	8
63	Subjective Duration as a Signature of Coding Efficiency: Emerging Links Among Stimulus Repetition, Predictive Coding, and Cortical GABA Levels. Timing & Time Perception Reviews, 2014, 1, 1-12.	1.4	40
64	Temporal Windows in Visual Processing: "Prestimulus Brain State―and "Poststimulus Phase Reset― Segregate Visual Transients on Different Temporal Scales. Journal of Neuroscience, 2014, 34, 1554-1565.	1.7	58
65	Effective Connectivity Reveals Right-Hemisphere Dominance in Audiospatial Perception: Implications for Models of Spatial Neglect. Journal of Neuroscience, 2014, 34, 5003-5011.	1.7	74
66	Electrophysiological Mechanisms of Network Control. , 2014, , 121-133.		1
67	Higher brain functions served by the lowly rodent primary visual cortex. Learning and Memory, 2014, 21, 527-533.	0.5	39
68	Explaining autism spectrum disorders: central coherence vs. predictive coding theories. Journal of Neurophysiology, 2014, 112, 2669-2671.	0.9	5
69	The Brain Ages Optimally to Model Its Environment: Evidence from Sensory Learning over the Adult Lifespan. PLoS Computational Biology, 2014, 10, e1003422.	1.5	96
70	Discrimination of cortical laminae using MEG. NeuroImage, 2014, 102, 885-893.	2.1	65
71	Neural Fields, Masses and Bayesian Modelling. , 2014, , 433-455.		6
72	Hierarchical processing of temporal asymmetry in human auditory cortex. , 2014, , .		2

		CITATION R	EPORT	
#	Article		IF	CITATIONS
73	Functions of gammaâ€band synchronization in cognition: from single circuits to functio across cortical and subcortical systems. European Journal of Neuroscience, 2014, 39, 1	onal diversity 982-1999.	1.2	175
74	The mirror illusion induces high gamma oscillations in the absence of movement. Neuro 103, 181-191.	Image, 2014,	2.1	16
75	Neural Fields. , 2014, , .			80
76	Dynamic connectivity among cortical layers in local and largeâ€scale sensory processin Journal of Neuroscience, 2014, 40, 3215-3223.	g. European	1.2	21
77	Attentional Modulation of Alpha/Beta and Gamma Oscillations Reflect Functionally Dist Processes. Journal of Neuroscience, 2014, 34, 16117-16125.	inct	1.7	196
78	Granger causality revisited. NeuroImage, 2014, 101, 796-808.		2.1	136
79	Dopamine-Modulated Recurrent Corticoefferent Feedback in Primary Sensory Cortex Pr Detection of Behaviorally Relevant Stimuli. Journal of Neuroscience, 2014, 34, 1234-12	omotes 47.	1.7	62
80	Active inference, eye movements and oculomotor delays. Biological Cybernetics, 2014,	108, 777-801.	0.6	44
81	The role of mirror neurons in language acquisition and evolution. Behavioral and Brain S 2014, 37, 192-193.	Sciences,	0.4	0
82	Deciphering mirror neurons: Rational decision versus associative learning. Behavioral ar Sciences, 2014, 37, 206-207.	id Brain	0.4	1
84	Reward in the mirror neuron system, social context, and the implications on psychopatl Behavioral and Brain Sciences, 2014, 37, 196-197.	nology.	0.4	1
85	The use of magnetoencephalography in the study of psychopharmacology (pharmaco-N Psychopharmacology, 2014, 28, 815-829.	ИЕG). Journal of	2.0	34
86	Mirror neurons: Tests and testability. Behavioral and Brain Sciences, 2014, 37, 221-241		0.4	9
87	Understanding action with the motor system. Behavioral and Brain Sciences, 2014, 37,	199-200.	0.4	5
88	The origin and function of mirror neurons: The missing link. Behavioral and Brain Scienc 209-210.	es, 2014, 37,	0.4	3
89	Relating the "mirrorness―of mirror neurons to their origins. Behavioral and Brain S 207-208	ciences, 2014, 37,	0.4	1
90	Do movement-related beta oscillations change after stroke?. Journal of Neurophysiolog 2053-2058.	y, 2014, 112,	0.9	119
91	The emergence of mirror-like response properties from domain-general principles in visi audition. Behavioral and Brain Sciences, 2014, 37, 219-219.	on and	0.4	0

#	Article	IF	CITATIONS
92	Experiential effects on mirror systems and social learning: Implications for social intelligence. Behavioral and Brain Sciences, 2014, 37, 217-218.	0.4	48
93	Understanding the role of mirror neurons in action understanding will require more than a domain-general account. Behavioral and Brain Sciences, 2014, 37, 211-211.	0.4	0
94	Testing key predictions of the associative account of mirror neurons in humans using multivariate pattern analysis. Behavioral and Brain Sciences, 2014, 37, 213-215.	0.4	4
95	More than associations: An ideomotor perspective on mirror neurons. Behavioral and Brain Sciences, 2014, 37, 195-196.	0.4	7
96	A mass assembly of associative mechanisms: A dynamical systems account of natural social interaction. Behavioral and Brain Sciences, 2014, 37, 198-198.	0.4	0
97	The insufficiency of associative learning for explaining development: Three challenges to the associative account. Behavioral and Brain Sciences, 2014, 37, 193-194.	0.4	1
98	Associative and sensorimotor learning for parenting involves mirror neurons under the influence of oxytocin. Behavioral and Brain Sciences, 2014, 37, 203-204.	0.4	4
99	Hebbian Learning is about contingency, not contiguity, and explains the emergence of predictive mirror neurons. Behavioral and Brain Sciences, 2014, 37, 205-206.	0.4	15
100	Vocal coordination and vocal imitation: A role for mirror neurons?. Behavioral and Brain Sciences, 2014, 37, 211-212.	0.4	2
101	Neonatal imitation and an epigenetic account of mirror neuron development. Behavioral and Brain Sciences, 2014, 37, 220-220.	0.4	6
102	Motor-visual neurons and action recognition in social interactions. Behavioral and Brain Sciences, 2014, 37, 197-198.	0.4	1
103	Mirror mechanism and dedicated circuits are the scaffold for mirroring processes. Behavioral and Brain Sciences, 2014, 37, 199-199.	0.4	6
104	Evolution after mirror neurons: Tapping the shared manifold through secondary adaptation. Behavioral and Brain Sciences, 2014, 37, 200-201.	0.4	0
105	Mirror representations innate versus determined by experience: A viewpoint from learning theory. Behavioral and Brain Sciences, 2014, 37, 201-202.	0.4	0
106	The alluring but misleading analogy between mirror neurons and the motor theory of speech. Behavioral and Brain Sciences, 2014, 37, 204-205.	0.4	0
107	A developmental perspective on action and social cognition. Behavioral and Brain Sciences, 2014, 37, 208-209.	0.4	3
108	Reconciling genetic evolution and the associative learning account of mirror neurons through data-acquisition mechanisms. Behavioral and Brain Sciences, 2014, 37, 210-211.	0.4	2
109	Associative learning alone is insufficient for the evolution and maintenance of the human mirror neuron system. Behavioral and Brain Sciences, 2014, 37, 212-213.	0.4	4

	CITATION	Report	
#	Article	IF	CITATIONS
110	The mirror system in human and nonhuman primates. Behavioral and Brain Sciences, 2014, 37, 215-216.	0.4	1
111	Contagious behavior: An alternative approach to mirror-like phenomena. Behavioral and Brain Sciences, 2014, 37, 216-217.	0.4	10
112	Associative learning is necessary but not sufficient for mirror neuron development. Behavioral and Brain Sciences, 2014, 37, 194-195.	0.4	1
113	Higher-level processes in the formation and application of associations during action understanding. Behavioral and Brain Sciences, 2014, 37, 202-203.	0.4	3
114	Stimulus repetition modulates gamma-band synchronization in primate visual cortex. Proceedings of the United States of America, 2014, 111, 3626-3631.	3.3	112
115	Mirror neurons: From origin to function. Behavioral and Brain Sciences, 2014, 37, 177-192.	0.4	454
116	Confounding the origin and function of mirror neurons. Behavioral and Brain Sciences, 2014, 37, 218-219.	0.4	6
117	A neurocomputational analysis of the sound-induced flash illusion. NeuroImage, 2014, 92, 248-266.	2.1	28
118	Anatomy of hierarchy: Feedforward and feedback pathways in macaque visual cortex. Journal of Comparative Neurology, 2014, 522, 225-259.	0.9	589
119	Computational principles of microcircuits for visual object processing in the macaque temporal cortex. Trends in Neurosciences, 2014, 37, 178-187.	4.2	21
120	A DCM for resting state fMRI. NeuroImage, 2014, 94, 396-407.	2.1	460
121	Prefrontal cortical minicolumn: from executive control to disrupted cognitive processing. Brain, 2014, 137, 1863-1875.	3.7	102
122	Computational neuroscience: beyond the local circuit. Current Opinion in Neurobiology, 2014, 25, xiii-xviii.	2.0	35
123	Learned spatiotemporal sequence recognition and prediction in primary visual cortex. Nature Neuroscience, 2014, 17, 732-737.	7.1	185
124	Learning and control of exploration primitives. Journal of Computational Neuroscience, 2014, 37, 259-280.	0.6	13
125	Sensory and cognitive neurophysiology in rats. Part 2: Validation and demonstration. Journal of Neuroscience Methods, 2014, 232, 47-57.	1.3	3
126	Motor Cortex Microcircuit Simulation Based on Brain Activity Mapping. Neural Computation, 2014, 26, 1239-1262.	1.3	18
127	Dorsal and Ventral Attention Systems. Neuroscientist, 2014, 20, 150-159.	2.6	1,012

#	Article	IF	CITATIONS
128	The functional anatomy of schizophrenia: A dynamic causal modeling study of predictive coding. Schizophrenia Research, 2014, 158, 204-212.	1.1	67
129	Computing with a Canonical Neural Circuits Model with Pool Normalization and Modulating Feedback. Neural Computation, 2014, 26, 2735-2789.	1.3	46
130	Goal-direction and top-down control. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130471.	1.8	90
131	The contribution of frequency-specific activity to hierarchical information processing in the human auditory cortex. Nature Communications, 2014, 5, 4694.	5.8	222
132	Emergent Exploration via Novelty Management. Journal of Neuroscience, 2014, 34, 12646-12661.	1.7	29
133	Computational psychiatry: the brain as a phantastic organ. Lancet Psychiatry,the, 2014, 1, 148-158.	3.7	398
134	Between Thought and Expression, a Magnetoencephalography Study of the "Tip-of-the-Tongue― Phenomenon. Journal of Cognitive Neuroscience, 2014, 26, 2210-2223.	1.1	8
135	Predictions, perception, and a sense of self. Neurology, 2014, 83, 1112-1118.	1.5	80
136	Expectation in perceptual decision making: neural and computational mechanisms. Nature Reviews Neuroscience, 2014, 15, 745-756.	4.9	595
137	Extracting novel information from neuroimaging data using neural fields. EPJ Nonlinear Biomedical Physics, 2014, 2, .	0.8	9
138	Noise-induced organized slow fluctuations in networks of neural areas with interarea feed-forward excitation and inhibition. Physical Review E, 2014, 89, 062710.	0.8	0
139	Cognitive Dynamics: From Attractors to Active Inference. Proceedings of the IEEE, 2014, 102, 427-445.	16.4	66
140	A neural microcircuit for cognitive conflict detection and signaling. Trends in Neurosciences, 2014, 37, 480-490.	4.2	305
141	Neurocomputational approaches to modelling multisensory integration in the brain: A review. Neural Networks, 2014, 60, 141-165.	3.3	54
142	Simultaneous Recordings from the Primary Visual Cortex and Lateral Geniculate Nucleus Reveal Rhythmic Interactions and a Cortical Source for Gamma-Band Oscillations. Journal of Neuroscience, 2014, 34, 7639-7644.	1.7	102
143	A brain basis for musical hallucinations. Cortex, 2014, 52, 86-97.	1.1	62
144	Temporal coding organized by coupled alpha and gamma oscillations prioritize visual processing. Trends in Neurosciences, 2014, 37, 357-369.	4.2	358
145	Contrast gain control and horizontal interactions in V1: A DCM study. NeuroImage, 2014, 92, 143-155.	2.1	64

#	Article	IF	CITATIONS
146	Dynamic gamma frequency feedback coupling between higher and lower order visual cortices underlies perceptual completion in humans. NeuroImage, 2014, 86, 470-479.	2.1	25
147	Resting EEG in psychosis and at-risk populations — A possible endophenotype?. Schizophrenia Research, 2014, 153, 96-102.	1.1	57
148	Beta oscillations reflect changes in motor cortex inhibition in healthy ageing. NeuroImage, 2014, 91, 360-365.	2.1	177
149	Getting ahead: forward models and their place in cognitive architecture. Trends in Cognitive Sciences, 2014, 18, 451-456.	4.0	142
150	A tutorial on variational Bayes for latent linear stochastic time-series models. Journal of Mathematical Psychology, 2014, 60, 1-19.	1.0	22
151	On nodes and modes in resting state fMRI. NeuroImage, 2014, 99, 533-547.	2.1	72
152	Decoding Sound and Imagery Content in Early Visual Cortex. Current Biology, 2014, 24, 1256-1262.	1.8	233
153	The auditory corticocollicular system: Molecular and circuit-level considerations. Hearing Research, 2014, 314, 51-59.	0.9	66
154	A Long-Range Fronto-Parietal 5- to 10-Hz Network Predicts "Top-Down" Controlled Guidance in a Task-Switch Paradigm. Cerebral Cortex, 2014, 24, 1996-2008.	1.6	97
155	Racing to learn: statistical inference and learning in a single spiking neuron with adaptive kernels. Frontiers in Neuroscience, 2014, 8, 377.	1.4	17
156	Perceptual decision making: drift-diffusion model is equivalent to a Bayesian model. Frontiers in Human Neuroscience, 2014, 8, 102.	1.0	117
157	Virtual reality and consciousness inference in dreaming. Frontiers in Psychology, 2014, 5, 1133.	1.1	101
158	Sustained oscillations, irregular firing, and chaotic dynamics in hierarchical modular networks with mixtures of electrophysiological cell types. Frontiers in Computational Neuroscience, 2014, 8, 103.	1.2	22
159	A genuine layer 4 in motor cortex with prototypical synaptic circuit connectivity. ELife, 2014, 3, e05422.	2.8	114
160	Decoupling the actions of the eyes from the hand alters beta and gamma synchrony within SPL. Journal of Neurophysiology, 2014, 111, 2210-2221.	0.9	21
161	Multiscale modeling for clinical translation in neuropsychiatric disease. Journal of Computational Surgery, 2014, 1, .	0.6	9
162	Staring us in the face? An embodied theory of innate face preference. Developmental Science, 2014, 17, 809-825.	1.3	28
163	No unified reward prediction error in local field potentials from the human nucleus accumbens: evidence from epilepsy patients. Journal of Neurophysiology, 2015, 114, 781-792.	0.9	9

#	Article	IF	CITATIONS
164	Taskâ€sensitive reconfiguration of corticocortical 6–20 Hz oscillatory coherence in naturalistic human performance. Human Brain Mapping, 2015, 36, 2455-2469.	1.9	15
165	Attention and prediction in human audition: a lesson from cognitive psychophysiology. European Journal of Neuroscience, 2015, 41, 641-664.	1.2	202
166	Decoding the future from past experience: learning shapes predictions in early visual cortex. Journal of Neurophysiology, 2015, 113, 3159-3171.	0.9	17
167	State space models and their spectral decomposition in dynamic causal modeling. , 0, , 114-136.		0
168	Contextual Feedback to Superficial Layers of V1. Current Biology, 2015, 25, 2690-2695.	1.8	303
169	Radical Predictive Processing. Southern Journal of Philosophy, 2015, 53, 3-27.	0.4	99
170	Feature expectation heightens visual sensitivity during fine orientation discrimination. Journal of Vision, 2015, 15, 14.	0.1	22
171	Towards a ââ,¬Å"canonicalââ,¬Â•agranular cortical microcircuit. Frontiers in Neuroanatomy, 2014, 8, 165.	0.9	66
172	Role of the site of synaptic competition and the balance of learning forces for Hebbian encoding of probabilistic Markov sequences. Frontiers in Computational Neuroscience, 2015, 9, 92.	1.2	4
173	Is predictive coding theory articulated enough to be testable?. Frontiers in Computational Neuroscience, 2015, 9, 111.	1.2	78
174	Altered retrieval of melodic information in congenital amusia: insights from dynamic causal modeling of MEG data. Frontiers in Human Neuroscience, 2015, 9, 20.	1.0	55
175	Structural and effective connectivity reveals potential network-based influences on category-sensitive visual areas. Frontiers in Human Neuroscience, 2015, 9, 253.	1.0	18
176	Task-related functional connectivity dynamics in a block-designed visual experiment. Frontiers in Human Neuroscience, 2015, 9, 543.	1.0	23
177	Empirical Bayes for Group (DCM) Studies: A Reproducibility Study. Frontiers in Human Neuroscience, 2015, 9, 670.	1.0	41
178	Functional constraints in the evolution of brain circuits. Frontiers in Neuroscience, 2015, 9, 303.	1.4	28
179	A Bayesian Attractor Model for Perceptual Decision Making. PLoS Computational Biology, 2015, 11, e1004442.	1.5	32
180	Cultured Cortical Neurons Can Perform Blind Source Separation According to the Free-Energy Principle. PLoS Computational Biology, 2015, 11, e1004643.	1.5	44
181	Neural Mechanisms of Cortical Motion Computation Based on a Neuromorphic Sensory System. PLoS ONE, 2015, 10, e0142488.	1.1	5

#	Article	IF	CITATIONS
182	Hierarchical Novelty-Familiarity Representation in the Visual System by Modular Predictive Coding. PLoS ONE, 2015, 10, e0144636.	1.1	3
183	Schizophrenia: from neurophysiological abnormalities to clinical symptoms. Frontiers in Psychology, 2015, 6, 478.	1.1	12
184	The brain dynamics of linguistic computation. Frontiers in Psychology, 2015, 6, 1515.	1.1	62
185	Involvement of Sensory Regions in Affective Experience: A Meta-Analysis. Frontiers in Psychology, 2015, 6, 1860.	1.1	78
186	Speech encoding by coupled cortical theta and gamma oscillations. ELife, 2015, 4, e06213.	2.8	140
187	The Challenge of Understanding the Brain: Where We Stand in 2015. Neuron, 2015, 86, 864-882.	3.8	78
188	Predictions to motion stimuli in human early visual cortex: Effects of motion displacement on motion predictability. NeuroImage, 2015, 118, 118-125.	2.1	3
189	Predictive Coding in Sensory Cortex. , 2015, , 221-244.		47
190	Characterising seizures in anti-NMDA-receptor encephalitis with dynamic causal modelling. NeuroImage, 2015, 118, 508-519.	2.1	39
191	Accurate Connection Strength Estimation Based on Variational Bayes for Detecting Synaptic Plasticity. Neural Computation, 2015, 27, 819-844.	1.3	4
192	Interoceptive predictions in the brain. Nature Reviews Neuroscience, 2015, 16, 419-429.	4.9	1,115
193	Implementation of universal computation via small recurrent finite precision neural networks. , 2015, , .		0
194	Characterizations of resting-state modulatory interactions in the human brain. Journal of Neurophysiology, 2015, 114, 2785-2796.	0.9	40
195	Active Inference, homeostatic regulation and adaptive behavioural control. Progress in Neurobiology, 2015, 134, 17-35.	2.8	458
196	Visual Areas Exert Feedforward and Feedback Influences through Distinct Frequency Channels. Neuron, 2015, 85, 390-401.	3.8	1,036
197	A cost minimisation and Bayesian inference model predicts startle reflex modulation across species. Journal of Theoretical Biology, 2015, 370, 53-60.	0.8	20
198	Peak experiences and the afterglow phenomenon: When and how do therapeutic effects of hallucinogens depend on psychedelic experiences?. Journal of Psychopharmacology, 2015, 29, 241-253.	2.0	171
199	A Duet for one. Consciousness and Cognition, 2015, 36, 390-405.	0.8	272

#	Article	IF	CITATIONS
200	Active inference and oculomotor pursuit: The dynamic causal modelling of eye movements. Journal of Neuroscience Methods, 2015, 242, 1-14.	1.3	35
201	Tracking slow modulations in synaptic gain using dynamic causal modelling: Validation in epilepsy. NeuroImage, 2015, 107, 117-126.	2.1	43
202	Cortical thickness gradients in structural hierarchies. NeuroImage, 2015, 111, 241-250.	2.1	155
203	The Dopaminergic Midbrain Encodes the Expected Certainty about Desired Outcomes. Cerebral Cortex, 2015, 25, 3434-3445.	1.6	158
204	Temporal coding in the auditory cortex. Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn, 2015, 129, 85-98.	1.0	29
205	Questioning the role of sparse coding in the brain. Trends in Neurosciences, 2015, 38, 417-427.	4.2	91
206	Inferior-frontal cortex phase synchronizes with the temporal–parietal junction prior to successful change detection. Neurolmage, 2015, 119, 417-431.	2.1	19
207	Precision and neuronal dynamics in the human posterior parietal cortex during evidence accumulation. NeuroImage, 2015, 107, 219-228.	2.1	48
208	A DCM study of spectral asymmetries in feedforward and feedback connections between visual areas V1 and V4 in the monkey. NeuroImage, 2015, 108, 460-475.	2.1	129
209	On self-feedback connectivity in neural mass models applied to event-related potentials. NeuroImage, 2015, 108, 364-376.	2.1	11
210	Functional Organization of the Primary Visual Cortex. , 2015, , 287-291.		0
211	Prediction and Expectation. , 2015, , 295-302.		8
212	Hierarchical Organization of Frontotemporal Networks for the Prediction of Stimuli across Multiple Dimensions. Journal of Neuroscience, 2015, 35, 9255-9264.	1.7	92
213	Learning enhances the relative impact of top-down processing in the visual cortex. Nature Neuroscience, 2015, 18, 1116-1122.	7.1	276
214	A predictive coding framework for rapid neural dynamics during sentence-level language comprehension. Cortex, 2015, 68, 155-168.	1.1	180
215	The Faces of Predictive Coding. Journal of Neuroscience, 2015, 35, 8997-9006.	1.7	74
216	Recent Advances on the Modular Organization of the Cortex. , 2015, , .		3
217	Active Inference, Predictive Coding and Cortical Architecture. , 2015, , 97-121.		6

#	Article	IF	Citations
218	Attentional Enhancement of Auditory Mismatch Responses: a DCM/MEG Study. Cerebral Cortex, 2015, 25, 4273-4283.	1.6	188
219	Behavioral Oscillation in Priming: Competing Perceptual Predictions Conveyed in Alternating Theta-Band Rhythms. Journal of Neuroscience, 2015, 35, 2830-2837.	1.7	64
220	Laminar profile of spontaneous and evoked theta: Rhythmic modulation of cortical processing during word integration. Neuropsychologia, 2015, 76, 108-124.	0.7	43
221	Arousal transitions in sleep, wakefulness, and anesthesia are characterized by an orderly sequence of cortical events. NeuroImage, 2015, 116, 222-231.	2.1	59
222	Presence, objecthood, and the phenomenology of predictive perception. Cognitive Neuroscience, 2015, 6, 111-117.	0.6	33
223	Perceptual inference. Neuroscience and Biobehavioral Reviews, 2015, 55, 375-392.	2.9	31
224	Dynamic Encoding of Speech Sequence Probability in Human Temporal Cortex. Journal of Neuroscience, 2015, 35, 7203-7214.	1.7	65
225	Active inference, communication and hermeneutics. Cortex, 2015, 68, 129-143.	1.1	227
227	Direct social perception, mindreading and Bayesian predictive coding. Consciousness and Cognition, 2015, 36, 565-570.	0.8	14
228	Early Visual Word Processing Is Flexible: Evidence from Spatiotemporal Brain Dynamics. Journal of Cognitive Neuroscience, 2015, 27, 1738-1751.	1.1	47
229	Cerebral hierarchies: predictive processing, precision and the pulvinar. Philosophical Transactions of the Royal Society B: Biological Sciences, 2015, 370, 20140169.	1.8	306
230	Context-specific differences in fronto-parieto-occipital effective connectivity during short-term memory maintenance. NeuroImage, 2015, 114, 320-327.	2.1	11
231	Intracranial Mapping of a Cortical Tinnitus System using Residual Inhibition. Current Biology, 2015, 25, 1208-1214.	1.8	83
232	Extraction of Cortical Modularity Patterns for Neural Prosthetics. , 2015, , 367-384.		0
233	Waking State: Rapid Variations Modulate Neural and Behavioral Responses. Neuron, 2015, 87, 1143-1161.	3.8	648
234	Mechanisms of Action and Persistent Neuroplasticity by Drugs of Abuse. Pharmacological Reviews, 2015, 67, 872-1004.	7.1	125
235	Predictive Coding: How Many Faces?. Journal of Neuroscience, 2015, 35, 14689-14690.	1.7	0
236	Autonomic and brain responses associated with empathy deficits in autism spectrum disorder. Human Brain Mapping, 2015, 36, 3323-3338.	1.9	84

#	Article	IF	CITATIONS
237	The neural basis of one's own conscious and unconscious emotional states. Neuroscience and Biobehavioral Reviews, 2015, 57, 1-29.	2.9	137
238	Computational neurostimulation for Parkinson's disease. Progress in Brain Research, 2015, 222, 163-190.	0.9	11
239	Neural and Computational Mechanisms of Action Processing: Interaction between Visual and Motor Representations. Neuron, 2015, 88, 167-180.	3.8	62
240	Cortical Correlates of Low-Level Perception: From Neural Circuits to Percepts. Neuron, 2015, 88, 110-126.	3.8	53
241	Predictions of Visual Content across Eye Movements and Their Modulation by Inferred Information. Journal of Neuroscience, 2015, 35, 7403-7413.	1.7	39
242	Cognition-Based Networks: A New Perspective on Network Optimization Using Learning and Distributed Intelligence. IEEE Access, 2015, 3, 1512-1530.	2.6	90
243	Parametric estimation of cross-frequency coupling. Journal of Neuroscience Methods, 2015, 243, 94-102.	1.3	44
244	Structure predicts function: Combining non-invasive electrophysiology with in-vivo histology. NeuroImage, 2015, 108, 377-385.	2.1	23
245	Delta–Beta Coupled Oscillations Underlie Temporal Prediction Accuracy. Cerebral Cortex, 2015, 25, 3077-3085.	1.6	249
246	Fish do not feel pain and its implications for understanding phenomenal consciousness. Biology and Philosophy, 2015, 30, 149-165.	0.7	50
247	Beyond Simple and Complex Neurons: Towards Intermediate-level Representations of Shapes and Objects. KI - Kunstliche Intelligenz, 2015, 29, 19-29.	2.2	0
248	A voxel-wise encoding model for early visual areas decodes mental images of remembered scenes. NeuroImage, 2015, 105, 215-228.	2.1	252
249	Understanding the behavioural consequences of noninvasive brain stimulation. Trends in Cognitive Sciences, 2015, 19, 13-20.	4.0	202
250	Mismatch negativity indexes illness-specific impairments of cortical plasticity in schizophrenia: A comparison with bipolar disorder and Alzheimer's disease. International Journal of Psychophysiology, 2015, 95, 145-155.	0.5	89
251	Dysconnectivity Within the Default Mode in First-Episode Schizophrenia: A Stochastic Dynamic Causal Modeling Study With Functional Magnetic Resonance Imaging. Schizophrenia Bulletin, 2015, 41, 144-153.	2.3	84
252	Losing Control Under Ketamine: Suppressed Cortico-Hippocampal Drive Following Acute Ketamine in Rats. Neuropsychopharmacology, 2015, 40, 268-277.	2.8	73
253	A Bayesian model for canonical circuits in the neocortex for parallelized and incremental learning of symbol representations. Neurocomputing, 2015, 149, 1270-1279.	3.5	6
254	Role of cortical neurodynamics for understanding the neural basis of motivated behavior — lessons from auditory category learning. Current Opinion in Neurobiology, 2015, 31, 88-94.	2.0	14

#	Article	IF	CITATIONS
255	Interareal oscillatory synchronization in top-down neocortical processing. Current Opinion in Neurobiology, 2015, 31, 62-66.	2.0	140
256	Sensory Processing and the Rubber Hand Illusion—An Evoked Potentials Study. Journal of Cognitive Neuroscience, 2015, 27, 573-582.	1.1	93
257	LFP and oscillations—what do they tell us?. Current Opinion in Neurobiology, 2015, 31, 1-6.	2.0	159
258	The Selfâ€Evidencing Brain. Nous, 2016, 50, 259-285.	1.4	363
259	Non-linear Parameter Estimates from Non-stationary MEG Data. Frontiers in Neuroscience, 2016, 10, 366.	1.4	7
260	Commentary: Beta-Band Oscillations Represent Auditory Beat and Its Metrical Hierarchy in Perception and Imagery. Frontiers in Neuroscience, 2016, 10, 389.	1.4	5
261	Eyes Open on Sleep and Wake: In Vivo to In Silico Neural Networks. Neural Plasticity, 2016, 2016, 1-13.	1.0	2
262	A Neurophysiological Perspective on Speech Processing in "The Neurobiology of Languageâ€, , 2016, , 463-478.		10
263	Neural Mechanisms of Attention to Speech. , 2016, , 503-514.		5
264	Interareal Connections of the Macaque Cortex. , 2016, , 117-134.		5
265	Neurobiology of Statistical Information Processing in the Auditory Domain. , 2016, , 527-537.		0
266	Signal Propagation between Neuronal Populations Controlled by Micropatterning. Frontiers in Bioengineering and Biotechnology, 2016, 4, 46.	2.0	14
267	Anatomy and Development of Multispecific Thalamocortical Axons. , 2016, , 69-92.		26
268	Large-Scale Simulations of Plastic Neural Networks on Neuromorphic Hardware. Frontiers in Neuroanatomy, 2016, 10, 37.	0.9	16
269	Discrepancies between Multi-Electrode LFP and CSD Phase-Patterns: A Forward Modeling Study. Frontiers in Neural Circuits, 2016, 10, 51.	1.4	20
270	Neurocognitive and Neuroplastic Mechanisms of Novel Clinical Signs in CRPS. Frontiers in Human Neuroscience, 2016, 10, 16.	1.0	40
271	A Predictive Coding Perspective on Beta Oscillations during Sentence-Level Language Comprehension. Frontiers in Human Neuroscience, 2016, 10, 85.	1.0	76
272	Temporal Uncertainty and Temporal Estimation Errors Affect Insular Activity and the Frontostriatal Indirect Pathway during Action Update: A Predictive Coding Study. Frontiers in Human Neuroscience, 2016, 10, 276.	1.0	5

#	Article	IF	CITATIONS
273	Allostatic Self-efficacy: A Metacognitive Theory of Dyshomeostasis-Induced Fatigue and Depression. Frontiers in Human Neuroscience, 2016, 10, 550.	1.0	256
274	More Gamma More Predictions: Gamma-Synchronization as a Key Mechanism for Efficient Integration of Classical Receptive Field Inputs with Surround Predictions. Frontiers in Systems Neuroscience, 2016, 10, 35.	1.2	63
275	The Computational Properties of a Simplified Cortical Column Model. PLoS Computational Biology, 2016, 12, e1005045.	1.5	38
276	Stimulus Statistics Change Sounds from Near-Indiscriminable to Hyperdiscriminable. PLoS ONE, 2016, 11, e0161001.	1.1	16
277	Toward a Unified Sub-symbolic Computational Theory of Cognition. Frontiers in Psychology, 2016, 7, 925.	1.1	42
278	Neural Elements for Predictive Coding. Frontiers in Psychology, 2016, 7, 1792.	1.1	218
279	Active Inference and Learning in the Cerebellum. Neural Computation, 2016, 28, 1812-1839.	1.3	24
280	Unconsciously elicited perceptual prior. Neuroscience of Consciousness, 2016, 2016, niw008.	1.4	13
281	Memory colours affect colour appearance. Behavioral and Brain Sciences, 2016, 39, e262.	0.4	8
282	Perception, as you make it. Behavioral and Brain Sciences, 2016, 39, e260.	0.4	8
283	Physiological and Perceptual Sensory Attenuation Have Different Underlying Neurophysiological Correlates. Journal of Neuroscience, 2016, 36, 10803-10812.	1.7	72
284	A Neural Assembly–Based View on Word Production: The Bilingual Test Case. Language Learning, 2016, 66, 92-131.	1.4	17
285	Multiple markers of cortical morphology reveal evidence of supragranular thinning in schizophrenia. Translational Psychiatry, 2016, 6, e780-e780.	2.4	50
286	Attention alters predictive processing. Behavioral and Brain Sciences, 2016, 39, e234.	0.4	15
287	On the neural implausibility of the modular mind: Evidence for distributed construction dissolves boundaries between perception, cognition, and emotion. Behavioral and Brain Sciences, 2016, 39, e246.	0.4	6
288	Tweaking the concepts of perception and cognition. Behavioral and Brain Sciences, 2016, 39, e232.	0.4	33
289	The distinction between perception and judgment, if there is one, is not clear and intuitive. Behavioral and Brain Sciences, 2016, 39, e249.	0.4	3
290	Representation of affect in sensory cortex. Behavioral and Brain Sciences, 2016, 39, e252.	0.4	3

#	Article	IF	CITATIONS
291	Seeing and thinking: Foundational issues and empirical horizons. Behavioral and Brain Sciences, 2016, 39, e264.	0.4	13
292	Oh the irony: Perceptual stability is important for action. Behavioral and Brain Sciences, 2016, 39, e239.	0.4	0
293	Hallucinations and mental imagery demonstrate top-down effects on visual perception. Behavioral and Brain Sciences, 2016, 39, e248.	0.4	5
294	The folly of boxology. Behavioral and Brain Sciences, 2016, 39, e231.	0.4	1
295	Gaining knowledge mediates changes in perception (without differences in attention): A case for perceptual learning. Behavioral and Brain Sciences, 2016, 39, e240.	0.4	2
296	An action-specific effect on perception that avoids all pitfalls. Behavioral and Brain Sciences, 2016, 39, e261.	0.4	14
297	Attention and memory-driven effects in action studies. Behavioral and Brain Sciences, 2016, 39, e259.	0.4	0
298	How cognition affects perception: Brain activity modelling to unravel top-down dynamics. Behavioral and Brain Sciences, 2016, 39, e238.	0.4	1
300	Beyond perceptual judgment: Categorization and emotion shape what we see. Behavioral and Brain Sciences, 2016, 39, e253.	0.4	0
301	Cognition can affect perception: Restating the evidence of a top-down effect. Behavioral and Brain Sciences, 2016, 39, e250.	0.4	2
302	Crossmodal processing and sensory substitution: Is "seeing―with sound and touch a form of perception or cognition?. Behavioral and Brain Sciences, 2016, 39, e241.	0.4	3
303	Connectivity Reveals Sources of Predictive Coding Signals in Early Visual Cortex During Processing of Visual Optic Flow. Cerebral Cortex, 2017, 27, bhw136.	1.6	18
304	Rhythmic Influence of Top–Down Perceptual Priors in the Phase of Prestimulus Occipital Alpha Oscillations. Journal of Cognitive Neuroscience, 2016, 28, 1318-1330.	1.1	96
305	Circular inference: mistaken belief, misplaced trust. Current Opinion in Behavioral Sciences, 2016, 11, 40-48.	2.0	48
306	Bio-inspired computer vision: Towards a synergistic approach of artificial and biological vision. Computer Vision and Image Understanding, 2016, 150, 1-30.	3.0	73
307	The relationship between consciousness, understanding, and rationality. Philosophical Psychology, 2016, 29, 943-957.	0.5	6
308	A touch with words: Dynamic synergies between manual actions and language. Neuroscience and Biobehavioral Reviews, 2016, 68, 59-95.	2.9	99
309	Intersubject variability and induced gamma in the visual cortex: DCM with empirical <scp>B</scp> ayes and neural fields. Human Brain Mapping, 2016, 37, 4597-4614.	1.9	22

#	Article	IF	CITATIONS
310	An active inference theory of allostasis and interoception in depression. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20160011.	1.8	314
311	Name recognition in autism: EEG evidence of altered patterns of brain activity and connectivity. Molecular Autism, 2016, 7, 38.	2.6	26
312	The contributions of resting state and task-based functional connectivity studies to our understanding of adolescent brain network maturation. Neuroscience and Biobehavioral Reviews, 2016, 70, 13-32.	2.9	98
313	The dysconnection hypothesis (2016). Schizophrenia Research, 2016, 176, 83-94.	1.1	426
314	Impaired prefrontal synaptic gain in people with psychosis and their relatives during the mismatch negativity. Human Brain Mapping, 2016, 37, 351-365.	1.9	64
315	Choice variability and suboptimality in uncertain environments. Current Opinion in Behavioral Sciences, 2016, 11, 109-115.	2.0	77
316	Unconscious emotion: A cognitive neuroscientific perspective. Neuroscience and Biobehavioral Reviews, 2016, 69, 216-238.	2.9	68
317	Encoding of Stimulus Probability in Macaque Inferior Temporal Cortex. Current Biology, 2016, 26, 2280-2290.	1.8	86
318	Feedforward and feedback frequency-dependent interactions in a large-scale laminar network of the primate cortex. Science Advances, 2016, 2, e1601335.	4.7	158
319	An Integrative Tinnitus Model Based on Sensory Precision. Trends in Neurosciences, 2016, 39, 799-812.	4.2	145
319 320	An Integrative Tinnitus Model Based on Sensory Precision. Trends in Neurosciences, 2016, 39, 799-812. A new L1-regularized time-varying autoregressive model for brain connectivity estimation: A study using visual task-related fMRI data. , 2016, , .	4.2	145 0
319 320 321	An Integrative Tinnitus Model Based on Sensory Precision. Trends in Neurosciences, 2016, 39, 799-812. A new L1-regularized time-varying autoregressive model for brain connectivity estimation: A study using visual task-related fMRI data. , 2016, , . Perceptual Inference: A Matter of Predictions and Errors. Current Biology, 2016, 26, R809-R811.	4.2	145 O 3
319320321322	An Integrative Tinnitus Model Based on Sensory Precision. Trends in Neurosciences, 2016, 39, 799-812. A new L1-regularized time-varying autoregressive model for brain connectivity estimation: A study using visual task-related fMRI data., 2016, , . Perceptual Inference: A Matter of Predictions and Errors. Current Biology, 2016, 26, R809-R811. Experience-dependent spatial expectations in mouse visual cortex. Nature Neuroscience, 2016, 19, 1658-1664.	4.2 1.8 7.1	145 0 3 237
 319 320 321 322 323 	An Integrative Tinnitus Model Based on Sensory Precision. Trends in Neurosciences, 2016, 39, 799-812. A new L1-regularized time-varying autoregressive model for brain connectivity estimation: A study using visual task-related fMRI data., 2016, ,. Perceptual Inference: A Matter of Predictions and Errors. Current Biology, 2016, 26, R809-R811. Experience-dependent spatial expectations in mouse visual cortex. Nature Neuroscience, 2016, 19, 1658-1664. Sensory and decision-related activity propagate in a cortical feedback loop during touch perception. Nature Neuroscience, 2016, 19, 1243-1249.	4.2 1.8 7.1 7.1	145 0 3 237 175
 319 320 321 322 323 324 	An Integrative Tinnitus Model Based on Sensory Precision. Trends in Neurosciences, 2016, 39, 799-812. A new L1-regularized time-varying autoregressive model for brain connectivity estimation: A study using visual task-related fMRI data., 2016, , . Perceptual Inference: A Matter of Predictions and Errors. Current Biology, 2016, 26, R809-R811. Experience-dependent spatial expectations in mouse visual cortex. Nature Neuroscience, 2016, 19, 1658-1664. Sensory and decision-related activity propagate in a cortical feedback loop during touch perception. Nature Neuroscience, 2016, 19, 1243-1249. A problem of scope for the free energy principle as a theory of cognition. Philosophical Psychology, 2016, 29, 967-980.	 4.2 1.8 7.1 7.1 0.5 	145 0 3 237 175 15
 319 320 321 322 323 324 325 	An Integrative Tinnitus Model Based on Sensory Precision. Trends in Neurosciences, 2016, 39, 799-812. A new L1-regularized time-varying autoregressive model for brain connectivity estimation: A study using visual task-related fMRI data., 2016, , . Perceptual Inference: A Matter of Predictions and Errors. Current Biology, 2016, 26, R809-R811. Experience-dependent spatial expectations in mouse visual cortex. Nature Neuroscience, 2016, 19, 1658-1664. Sensory and decision-related activity propagate in a cortical feedback loop during touch perception. Nature Neuroscience, 2016, 19, 1243-1249. A problem of scope for the free energy principle as a theory of cognition. Philosophical Psychology, 2016, 29, 967-980. Linking Neuromodulated Spike-Timing Dependent Plasticity with the Free-Energy Principle. Neural Computation, 2016, 28, 1859-1888.	 4.2 1.8 7.1 7.1 0.5 1.3 	145 0 3 237 175 15 8
 319 320 321 322 323 324 325 326 	An Integrative Tinnitus Model Based on Sensory Precision. Trends in Neurosciences, 2016, 39, 799-812. A new L1-regularized time-varying autoregressive model for brain connectivity estimation: A study using visual task-related fMRI data., 2016, , . Perceptual Inference: A Matter of Predictions and Errors. Current Biology, 2016, 26, R809-R811. Experience-dependent spatial expectations in mouse visual cortex. Nature Neuroscience, 2016, 19, 1658-1664. Sensory and decision-related activity propagate in a cortical feedback loop during touch perception. Nature Neuroscience, 2016, 19, 1243-1249. A problem of scope for the free energy principle as a theory of cognition. Philosophical Psychology, 2016, 28, 1859-1888. Linking Neuromodulated Spike-Timing Dependent Plasticity with the Free-Energy Principle. Neural Computation, 2016, 28, 1859-1888. Active interoceptive inference and the emotional brain. Philosophical Transactions of the Royal Sciences, 2016, 371, 20160007.	 4.2 1.8 7.1 7.1 0.5 1.3 1.8 	 145 0 3 237 237 175 15 8 508

#	Article	IF	CITATIONS
328	Random synaptic feedback weights support error backpropagation for deep learning. Nature Communications, 2016, 7, 13276.	5.8	412
329	The theory of constructed emotion: an active inference account of interoception and categorization. Social Cognitive and Affective Neuroscience, 2017, 12, nsw154.	1.5	535
330	Visual Prediction Error Spreads Across Object Features in Human Visual Cortex. Journal of Neuroscience, 2016, 36, 12746-12763.	1.7	22
331	Top-down models in biology: explanation and control of complex living systems above the molecular level. Journal of the Royal Society Interface, 2016, 13, 20160555.	1.5	131
332	Action valence and affective perception. Behavioral and Brain Sciences, 2016, 39, e243.	0.4	4
333	Inputs to prefrontal cortex support visual recognition in the aging brain. Scientific Reports, 2016, 6, 31943.	1.6	22
334	Carving nature at its joints or cutting its effective loops? On the dangers of trying to disentangle intertwined mental processes. Behavioral and Brain Sciences, 2016, 39, e244.	0.4	1
335	The myth of pure perception. Behavioral and Brain Sciences, 2016, 39, e235.	0.4	5
336	Firestone & Scholl conflate two distinct issues. Behavioral and Brain Sciences, 2016, 39, e255.	0.4	0
337	Task demand not so damning: Improved techniques that mitigate demand in studies that support top-down effects. Behavioral and Brain Sciences, 2016, 39, e230.	0.4	0
338	The anatomical and physiological properties of the visual cortex argue against cognitive penetration. Behavioral and Brain Sciences, 2016, 39, e245.	0.4	3
339	Studies on cognitively driven attention suggest that late vision is cognitively penetrated, whereas early vision is not. Behavioral and Brain Sciences, 2016, 39, e256.	0.4	2
340	Bottoms up! How top-down pitfalls ensnare speech perception researchers, too. Behavioral and Brain Sciences, 2016, 39, e236.	0.4	3
341	The Mind and the Brain. The Frontiers Collection, 2016, , 291-394.	0.1	0
342	Decomposing experience-driven attention: Opposite attentional effects of previously predictive cues. Attention, Perception, and Psychophysics, 2016, 78, 2185-2198.	0.7	14
343	Are Hallucinations Due to an Imbalance Between Excitatory and Inhibitory Influences on the Brain?. Schizophrenia Bulletin, 2016, 42, 1124-1134.	2.3	127
344	Temporal integration of multisensory stimuli in autism spectrum disorder: a predictive coding perspective. Journal of Neural Transmission, 2016, 123, 917-923.	1.4	23
345	Only time will tell – why temporal information is essential for our neuroscientific understanding of semantics. Psychonomic Bulletin and Review, 2016, 23, 1072-1079.	1.4	37

#	Article	IF	CITATIONS
346	The spatiotemporal hemodynamic response function for depth-dependent functional imaging of human cortex. NeuroImage, 2016, 139, 240-248.	2.1	43
347	The relationship between oscillatory EEG activity and the laminar-specific BOLD signal. Proceedings of the United States of America, 2016, 113, 6761-6766.	3.3	147
348	Bio-inspired feedback-circuit implementation of discrete, free energy optimizing, winner-take-all computations. Biological Cybernetics, 2016, 110, 135-150.	0.6	2
349	Computational modelling of movement-related beta-oscillatory dynamics in human motor cortex. NeuroImage, 2016, 133, 224-232.	2.1	40
350	Prediction error, ketamine and psychosis: An updated model. Journal of Psychopharmacology, 2016, 30, 1145-1155.	2.0	97
351	Predictive coding and representationalism. SynthÃ^se, 2016, 193, 559-582.	0.6	118
352	Selective Activation of the Deep Layers of the Human Primary Visual Cortex by Top-Down Feedback. Current Biology, 2016, 26, 371-376.	1.8	310
353	Let the Rhythm Guide You: Non-invasive Tracking of Cortical Communication Channels. Neuron, 2016, 89, 244-247.	3.8	7
354	Optimal Prediction in the Retina and Natural Motion Statistics. Journal of Statistical Physics, 2016, 162, 1309-1323.	0.5	32
355	Frequency tuning for temporal perception and prediction. Current Opinion in Behavioral Sciences, 2016, 8, 1-6.	2.0	41
356	Alpha-Beta and Gamma Rhythms Subserve Feedback and Feedforward Influences among Human Visual Cortical Areas. Neuron, 2016, 89, 384-397.	3.8	582
357	Charting the landscape of priority problems in psychiatry, part 2: pathogenesis and aetiology. Lancet Psychiatry,the, 2016, 3, 84-90.	3.7	46
358	Redefining the Role of Limbic Areas in Cortical Processing. Trends in Cognitive Sciences, 2016, 20, 96-106.	4.0	242
359	Dopaminergic impact on local and global cortical circuit processing during learning. Behavioural Brain Research, 2016, 299, 32-41.	1.2	16
360	Commentary on Strijkers and Costa: the cortical dynamics of speaking. Language, Cognition and Neuroscience, 2016, 31, 508-510.	0.7	1
361	Is prediction necessary to understand language? Probably not. Language, Cognition and Neuroscience, 2016, 31, 19-31.	0.7	149
362	Neural Correlates of Vocal Production and Motor Control in Human Heschl's Gyrus. Journal of Neuroscience, 2016, 36, 2302-2315.	1.7	69
363	Brain structure and dynamics across scales: in search of rules. Current Opinion in Neurobiology, 2016, 37, 92-98.	2.0	66

#	Article	IF	CITATIONS
364	Beta- and gamma-band activity reflect predictive coding in the processing of causal events. Social Cognitive and Affective Neuroscience, 2016, 11, 973-980.	1.5	67
365	A hemodynamic model for layered BOLD signals. NeuroImage, 2016, 125, 556-570.	2.1	128
366	Emergence of functional subnetworks in layer 2/3 cortex induced by sequential spikes in vivo. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E1372-81.	3.3	22
367	Can predictive coding explain repetition suppression?. Cortex, 2016, 80, 113-124.	1.1	83
368	A predictive coding account of MMN reduction in schizophrenia. Biological Psychology, 2016, 116, 68-74.	1.1	52
369	Repetition suppression and its contextual determinants in predictive coding. Cortex, 2016, 80, 125-140.	1.1	233
370	Dynamic causal modelling of eye movements during pursuit: Confirming precision-encoding in V1 using MEG. NeuroImage, 2016, 132, 175-189.	2.1	31
371	Perceptual learning of degraded speech by minimizing prediction error. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E1747-56.	3.3	96
372	Movement priming of EEG/MEG brain responses for action-words characterizes the link between language and action. Cortex, 2016, 74, 262-276.	1.1	60
373	Learning Temporal Statistics for Sensory Predictions in Aging. Journal of Cognitive Neuroscience, 2016, 28, 418-432.	1.1	4
374	Anterior insula coordinates hierarchical processing of tactile mismatch responses. NeuroImage, 2016, 127, 34-43.	2.1	99
375	Structural coding versus free-energy predictive coding. Psychonomic Bulletin and Review, 2016, 23, 663-677.	1.4	10
376	Is there a common oscillatory brain mechanism for producing and predicting language?. Language, Cognition and Neuroscience, 2016, 31, 145-158.	0.7	39
377	Temporal Information of Directed Causal Connectivity in Multi-Trial ERP Data using Partial Granger Causality. Neuroinformatics, 2016, 14, 99-120.	1.5	16
378	Interactions Between the Prefrontal Cortex and Attentional Systems During Volitional Affective Regulation: An Effective Connectivity Reappraisal Study. Brain Topography, 2016, 29, 253-261.	0.8	33
379	Expecting to See a Letter: Alpha Oscillations as Carriers of Top-Down Sensory Predictions. Cerebral Cortex, 2016, 26, 3146-3160.	1.6	88
380	A review of predictive coding algorithms. Brain and Cognition, 2017, 112, 92-97.	0.8	265
381	Cognitive functions of intracellular mechanisms for contextual amplification. Brain and Cognition, 2017, 112, 39-53.	0.8	34

ARTICLE IF CITATIONS # A social Bayesian brain: How social knowledge can shape visual perception. Brain and Cognition, 2017, 382 0.8 85 112, 69-77. A tutorial on the free-energy framework for modelling perception and learning. Journal of Mathematical Psychology, 2017, 76, 198-211. 1.0 178 Brain oscillations differentially encode noxious stimulus intensity and pain intensity. NeuroImage, 384 2.1 79 2017, 148, 141-147. The Depressed Brain: An Evolutionary Systems Theory. Trends in Cognitive Sciences, 2017, 21, 182-194. 385 134 Altered effective brain connectivity at early response of antipsychotics in first-episode schizophrenia 386 0.7 10 with auditory hallucinations. Clinical Neurophysiology, 2017, 128, 867-874. A Role of Sleep in Forming Predictive Codes. Studies in Neuroscience, Psychology and Behavioral 0.1 Economics, 2017, , 117-132. The Contribution of Different Cortical Regions to the Control of Spatially Decoupled Eyeâ€"Hand 388 1.1 11 Coordination. Journal of Cognitive Neuroscience, 2017, 29, 1194-1211. Brain activity from stimuli that are not perceived: Visual mismatch negativity during binocular rivalry suppression. Psychophysiology, 2017, 54, 755-763. 1.2 Spectral power changes prior to psychogenic non-epileptic seizures: a pilot study. Journal of Neurology, Neurosurgery and Psychiatry, 2017, 88, 190-192. 390 0.9 11 Theory of cortical function. Proceedings of the National Academy of Sciences of the United States of 3.3 America, 2017, 114, 1773-1782. The hierarchical basis of neurovisceral integration. Neuroscience and Biobehavioral Reviews, 2017, 75, 392 353 2.9 274-296. Mario Becomes Cognitive. Topics in Cognitive Science, 2017, 9, 343-373. 1.1 The core and beyond in the language-ready brain. Neuroscience and Biobehavioral Reviews, 2017, 81, 394 2.9 101 194-204. How neuroscience can inform the study of individual differences in cognitive abilities. Reviews in the 1.4 Neurosciences, 2017, 28, 343-362. The Cognitive Neuroscience of Placebo Effects: Concepts, Predictions, and Physiology. Annual Review 396 5.0108 of Neuroscience, 2017, 40, 167-188. Flexible and adaptive processes in speech perception., 2017, , 155-186. Prediction suppression and surprise enhancement in monkey inferotemporal cortex. Journal of 398 0.9 20 Neurophysiology, 2017, 118, 374-382. Evidence for a large-scale brain system supporting allostasis and interoception in humans. Nature 399 6.2 Human Behaviour, 2017, 1, .

		CITATION REPORT		
#	ARTICLE Deep temporal models and active inference. Neuroscience and Biobehavioral Reviews, 20)17, 77, 388-402.	IF 2.9	Citations
401	From static to temporal network theory: Applications to functional brain connectivity. No Neuroscience, 2017, 1, 69-99.	etwork	1.4	77
402	Brain oscillations in language comprehension. Language, Cognition and Neuroscience, 2	017, 32, 533-535.	0.7	21
403	The Variational Principles of Cognition. Advances in Dynamics, Patterns, Cognition, 2017	,,189-211.	0.2	0
404	The role of predictive coding in the pathogenesis of delirium. Medical Hypotheses, 2017,	103, 71-77.	0.8	2
405	Advances in Dynamics, Patterns, Cognition. Advances in Dynamics, Patterns, Cognition,	2017,,.	0.2	8
406	Language and other complex behaviors: Unifying characteristics, computational models, mechanisms. Language Sciences, 2017, 62, 91-123.	neural	0.5	11
407	Low-frequency oscillations employ a general coding of the spatio-temporal similarity of d faces. NeuroImage, 2017, 157, 486-499.	ynamic	2.1	15
408	Multiple Transient Signals in Human Visual Cortex Associated with an Elementary Decisio Neuroscience, 2017, 37, 5744-5757.	on. Journal of	1.7	24
409	Towards building a more complex view of the lateral geniculate nucleus: Recent advance understanding its role. Progress in Neurobiology, 2017, 156, 214-255.	s in	2.8	50
410	Uncertainty and stress: Why it causes diseases and how it is mastered by the brain. Prog Neurobiology, 2017, 156, 164-188.	ress in	2.8	436
411	Visuomotor Coupling Shapes the Functional Development of Mouse Visual Cortex. Cell, 2 1291-1302.e14.	2017, 169,	13.5	159
412	Top-Down Beta Enhances Bottom-Up Gamma. Journal of Neuroscience, 2017, 37, 6698-6	5711.	1.7	138
413	The rhythms of predictive coding? Pre-stimulus phase modulates the influence of shape pluminance judgments. Scientific Reports, 2017, 7, 43573.	berception on	1.6	25
414	A mathematical model of embodied consciousness. Journal of Theoretical Biology, 2017,	428, 106-131.	0.8	67
415	Hierarchical disruption in the Bayesian brain: Focal epilepsy and brain networks. NeuroIm 2017, 15, 682-688.	age: Clinical,	1.4	6
416	The graphical brain: Belief propagation and active inference. Network Neuroscience, 201	7, 1, 381-414.	1.4	260
417	The Cumulative Effects of Predictability on Synaptic Gain in the Auditory Processing Stre of Neuroscience, 2017, 37, 6751-6760.	am. Journal	1.7	52

	Сг	CITATION REPORT	
#	ARTICLE	IF	Citations
418	Pre-encoding gamma-band activity during auditory working memory. Scientific Reports, 2017, 7, 425	79. 1.6	3
419	Modeling the Cocktail Party Problem. Springer Handbook of Auditory Research, 2017, , 111-135.	0.3	5
420	An Approximation of the Error Backpropagation Algorithm in a Predictive Coding Network with Local Hebbian Synaptic Plasticity. Neural Computation, 2017, 29, 1229-1262.	1.3	117
421	The Auditory System at the Cocktail Party. Springer Handbook of Auditory Research, 2017, , .	0.3	70
422	Abnormal frontoparietal synaptic gain mediating the <scp>P</scp> 300 in patients with psychotic disorder and their unaffected relatives. Human Brain Mapping, 2017, 38, 3262-3276.	1.9	21
423	Intracortical microstimulation differentially activates cortical layers based on stimulation depth. Brain Stimulation, 2017, 10, 684-694.	0.7	26
424	Interrelation of attention and prediction in visual processing: Effects of task-relevance and stimulus probability. Biological Psychology, 2017, 125, 76-90.	1.1	32
425	Where Does EEG Come From and What Does It Mean?. Trends in Neurosciences, 2017, 40, 208-218.	4.2	354
427	Expectation violation and attention to pain jointly modulate neural gain in somatosensory cortex. NeuroImage, 2017, 153, 109-121.	2.1	49
428	Brain Rhythms of Pain. Trends in Cognitive Sciences, 2017, 21, 100-110.	4.0	290
429	Timing in Predictive Coding: The Roles of Task Relevance and Global Probability. Journal of Cognitive Neuroscience, 2017, 29, 780-792.	1.1	14
430	Perceptual Decision Making in Rodents, Monkeys, and Humans. Neuron, 2017, 93, 15-31.	3.8	261
431	Conserved Sequence Processing in Primate Frontal Cortex. Trends in Neurosciences, 2017, 40, 72-82.	4.2	78
432	The free energy principle for action and perception: A mathematical review. Journal of Mathematical Psychology, 2017, 81, 55-79.	1.0	214
433	A generative vision model that trains with high data efficiency and breaks text-based CAPTCHAs. Science, 2017, 358, .	6.0	166
434	Estimating cortical column sensory networks in rodents from micro-electrocorticograph (μECoG) recordings. NeuroImage, 2017, 163, 342-357.	2.1	2
436	Neural Mechanisms of Language. Innovations in Cognitive Neuroscience, 2017, , .	0.3	5
437	BINK: Biological binary keypoint descriptor. BioSystems, 2017, 162, 147-156.	0.9	4

#	Article	IF	CITATIONS
438	Strategic adaptation to non-reward prediction error qualities and irreducible uncertainty in fMRI. Cortex, 2017, 97, 32-48.	1.1	11
439	Visualising mental representations: A primer on noise-based reverse correlation in social psychology. European Review of Social Psychology, 2017, 28, 333-361.	5.8	66
440	Disruption of cortical network activity by the general anaesthetic isoflurane. British Journal of Anaesthesia, 2017, 119, 685-696.	1.5	32
441	Predictive coding: A contemporary view on the burden of normality and forced normalization in in individuals undergoing epilepsy surgery. Epilepsy and Behavior, 2017, 75, 110-113.	0.9	4
442	Oscillatory brain mechanisms of the hypnotically-induced out-of-body experience. Cortex, 2017, 96, 19-30.	1.1	9
443	Prior expectations induce prestimulus sensory templates. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 10473-10478.	3.3	240
444	Visual Decision-Making in an Uncertain and Dynamic World. Annual Review of Vision Science, 2017, 3, 227-250.	2.3	59
445	Neuroscience-Inspired Artificial Intelligence. Neuron, 2017, 95, 245-258.	3.8	934
446	Ĵ-Band and β-Band Neural Activity Reflects Independent Syllable Tracking and Comprehension of Time-Compressed Speech. Journal of Neuroscience, 2017, 37, 7930-7938.	1.7	75
447	Rapid face adaptation distributes representation in inferior-temporal cortex across time and neuronal dimensions. Scientific Reports, 2017, 7, 1709.	1.6	2
448	Computational Psychosomatics and Computational Psychiatry: Toward a Joint Framework for Differential Diagnosis. Biological Psychiatry, 2017, 82, 421-430.	0.7	131
449	Information-Theoretic Evidence for Predictive Coding in the Face-Processing System. Journal of Neuroscience, 2017, 37, 8273-8283.	1.7	34
450	Distinct Top-down and Bottom-up Brain Connectivity During Visual Perception and Imagery. Scientific Reports, 2017, 7, 5677.	1.6	123
451	Neurophysiologically-informed markers of individual variability and pharmacological manipulation of human cortical gamma. NeuroImage, 2017, 161, 19-31.	2.1	43
452	Behavioral oscillation in face priming: Prediction about face identity is updated at a theta-band rhythm. Progress in Brain Research, 2017, 236, 211-224.	0.9	8
453	Beta oscillations reflect supramodal information during perceptual judgment. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 13810-13815.	3.3	36
454	Building machines that adapt and compute like brains. Behavioral and Brain Sciences, 2017, 40, e269.	0.4	7
456	Predictive feedback to V1 dynamically updates with sensory input. Scientific Reports, 2017, 7, 16538.	1.6	43

#	Article	IF	CITATIONS
457	Synergistic Processing of Visual Contours across Cortical Layers in V1 and V2. Neuron, 2017, 96, 1388-1402.e4.	3.8	32
458	The importance of motivation and emotion for explaining human cognition. Behavioral and Brain Sciences, 2017, 40, e267.	0.4	39
459	Reply to Vinken and Vogels. Current Biology, 2017, 27, R1212-R1213.	1.8	6
460	Back to the future: The return of cognitive functionalism. Behavioral and Brain Sciences, 2017, 40, e257.	0.4	1
461	Thinking like animals or thinking like colleagues?. Behavioral and Brain Sciences, 2017, 40, e263.	0.4	2
462	Building on prior knowledge without building it in. Behavioral and Brain Sciences, 2017, 40, e268.	0.4	4
463	Theories or fragments?. Behavioral and Brain Sciences, 2017, 40, e258.	0.4	3
464	Children begin with the same start-up software, but their software updates are cultural. Behavioral and Brain Sciences, 2017, 40, e260.	0.4	3
465	Autonomous development and learning in artificial intelligence and robotics: Scaling up deep learning to human-like learning. Behavioral and Brain Sciences, 2017, 40, e275.	0.4	6
466	Human-like machines: Transparency and comprehensibility. Behavioral and Brain Sciences, 2017, 40, e276.	0.4	9
467	Causal generative models are just a start. Behavioral and Brain Sciences, 2017, 40, e262.	0.4	4
468	Social-motor experience and perception-action learning bring efficiency to machines. Behavioral and Brain Sciences, 2017, 40, e273.	0.4	0
469	Increases in the autistic trait of attention to detail are associated with decreased multisensory temporal adaptation. Scientific Reports, 2017, 7, 14354.	1.6	35
470	Working memory, attention, and salience in active inference. Scientific Reports, 2017, 7, 14678.	1.6	148
471	Ingredients of intelligence: From classic debates to an engineering roadmap. Behavioral and Brain Sciences, 2017, 40, e281.	0.4	11
472	Building machines that learn and think for themselves. Behavioral and Brain Sciences, 2017, 40, e255.	0.4	17
473	Evidence from machines that learn and think like people. Behavioral and Brain Sciences, 2017, 40, e264.	0.4	2
474	Understand the cogs to understand cognition. Behavioral and Brain Sciences, 2017, 40, e272.	0.4	1

#	Article	IF	CITATIONS
475	Systematic population spike delays across cortical layers within and between primary sensory areas. Scientific Reports, 2017, 7, 15267.	1.6	9
476	Precision Psychiatry. Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, 2017, 2, 640-643.	1.1	28
477	Network Supervision of Adult Experience and Learning Dependent Sensory Cortical Plasticity. , 2017, 7, 977-1008.		4
478	Bridging the gap between system and cell: The role of ultra-high field MRI in human neuroscience. Progress in Brain Research, 2017, 233, 179-220.	0.9	11
479	The role of virtual reality in improving motor performance as revealed by EEG: a randomized clinical trial. Journal of NeuroEngineering and Rehabilitation, 2017, 14, 53.	2.4	163
480	Disrupted development and imbalanced function in the global neuronal workspace: a positive-feedback mechanism for the emergence of ASD in early infancy. Cognitive Neurodynamics, 2017, 11, 1-21.	2.3	28
481	Neural plasticity following lesions of the primate occipital lobe: The marmoset as an animal model for studies of blindsight. Developmental Neurobiology, 2017, 77, 314-327.	1.5	17
482	Vision as a Beachhead. Biological Psychiatry, 2017, 81, 832-837.	0.7	28
483	The neurobiology of uncertainty: implications for statistical learning. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160048.	1.8	58
484	Linking canonical microcircuits and neuronal activity: Dynamic causal modelling of laminar recordings. NeuroImage, 2017, 146, 355-366.	2.1	38
485	Active Inference: A Process Theory. Neural Computation, 2017, 29, 1-49.	1.3	677
486	Building machines that learn and think like people. Behavioral and Brain Sciences, 2017, 40, e253.	0.4	978
487	Higher-order auditory areas in congenital deafness: Top-down interactions and corticocortical decoupling. Hearing Research, 2017, 343, 50-63.	0.9	59
488	Dynamic causal modelling of seizure activity in a rat model. NeuroImage, 2017, 146, 518-532.	2.1	27
489	Induced cortical responses require developmental sensory experience. Brain, 2017, 140, 3153-3165.	3.7	33
490	Benefits of embodiment. Behavioral and Brain Sciences, 2017, 40, e271.	0.4	2
491	Symmetry Breaking in Cognitive Disorders. Springer Series in Cognitive and Neural Systems, 2017, , 175-191.	0.1	0
492	Digging deeper on "deep―learning: A computational ecology approach. Behavioral and Brain Sciences, 2017, 40, e256.	0.4	6

#	Article	IF	CITATIONS
493	Pyramidal Cell Subtypes and Their Synaptic Connections in Layer 5 of Rat Frontal Cortex. Cerebral Cortex, 2017, 27, 5755-5771.	1.6	76
495	Evidence for causal top-down frontal contributions to predictive processes in speech perception. Nature Communications, 2017, 8, 2154.	5.8	107
496	Deep-learning networks and the functional architecture of executive control. Behavioral and Brain Sciences, 2017, 40, e261.	0.4	1
497	What can the brain teach us about building artificial intelligence?. Behavioral and Brain Sciences, 2017, 40, e265.	0.4	3
498	Building brains that communicate like machines. Behavioral and Brain Sciences, 2017, 40, e266.	0.4	2
499	Intelligent machines and human minds. Behavioral and Brain Sciences, 2017, 40, e277.	0.4	0
500	Translaminar circuits formed by the pyramidal cells in the superficial layers of cat visual cortex. Brain Structure and Function, 2017, 223, 1811-1828.	1.2	3
501	Crossmodal lifelong learning in hybrid neural embodied architectures. Behavioral and Brain Sciences, 2017, 40, e280.	0.4	1
502	The humanness of artificial non-normative personalities. Behavioral and Brain Sciences, 2017, 40, e259.	0.4	5
503	Avoiding frostbite: It helps to learn from others. Behavioral and Brain Sciences, 2017, 40, e279.	0.4	3
504	The architecture challenge: Future artificial-intelligence systems will require sophisticated architectures, and knowledge of the brain might guide their construction. Behavioral and Brain Sciences, 2017, 40, e254.	0.4	5
505	Will human-like machines make human-like mistakes?. Behavioral and Brain Sciences, 2017, 40, e270.	0.4	2
506	The argument for single-purpose robots. Behavioral and Brain Sciences, 2017, 40, e274.	0.4	0
507	The fork in the road. Behavioral and Brain Sciences, 2017, 40, e278.	0.4	0
509	A Laminar Organization for Selective Cortico-Cortical Communication. Frontiers in Neuroanatomy, 2017, 11, 71.	0.9	96
510	What Is the Evidence for Inter-laminar Integration in a Prefrontal Cortical Minicolumn?. Frontiers in Neuroanatomy, 2017, 11, 116.	0.9	7
511	A Theory of How Columns in the Neocortex Enable Learning the Structure of the World. Frontiers in Neural Circuits, 2017, 11, 81.	1.4	95
512	A Factor Graph Description of Deep Temporal Active Inference. Frontiers in Computational Neuroscience, 2017, 11, 95.	1.2	19

ARTICLE IF CITATIONS # Selective Attention Enhances Beta-Band Cortical Oscillation to Speech under "Cocktail-Party― 513 1.0 27 Listening Conditions. Frontiers in Human Neuroscience, 2017, 11, 34. A neural mass model of cross frequency coupling. PLoS ONE, 2017, 12, e0173776. 514 1.1 A Bayesian computational basis for auditory selective attention using head rotation and the 515 1.1 10 interaural time-difference cue. PLoS ONE, 2017, 12, e0186104. Sequence learning modulates neural responses and oscillatory coupling in human and monkey 516 auditory cortex. PLoS Biology, 2017, 15, e2000219. Task relevance modulates the behavioural and neural effects of sensory predictions. PLoS Biology, 517 2.6 50 2017, 15, e2003143. Breakdown of local information processing may underlie isoflurane anesthesia effects. PLoS Computational Biology, 2017, 13, e1005511. 1.5 Neurons along the auditory pathway exhibit a hierarchical organization of prediction error. Nature 519 5.8 222 Communications, 2017, 8, 2148. Catching on it early: Bodily and brain anticipatory mechanisms for excellence in sport. Progress in 520 Brain Research, 2017, 234, 53-67. Hierarchical prediction errors in midbrain and septum during social learning. Social Cognitive and 521 103 1.5 Affective Neuroscience, 2017, 12, 618-634. Simulating laminar neuroimaging data for a visual delayed match-to-sample task. NeuroImage, 2018, 173, 2.1 199-222. Symmetric Predictive Estimator for Biologically Plausible Neural Learning. IEEE Transactions on 523 7.2 4 Neural Networks and Learning Systems, 2018, 29, 4140-4151. Cortical Thickness. Neuromethods, 2018, , 35-49. 524 What is mood? A computational perspective. Psychological Medicine, 2018, 48, 2277-2284. 525 2.7 132 Electrophysiological Source Imaging: A Noninvasive Window to Brain Dynamics. Annual Review of 5.7 176 Biomedical Engineering, 2018, 20, 171-196. The Circuit Motif as a Conceptual Tool for Multilevel Neuroscience. Trends in Neurosciences, 2018, 41, 527 4.2 31 128-136. 1/f neural noise and electrophysiological indices of contextual prediction in aging. Brain Research, 2018, 1691, 34-43. Mapping Cortical Laminar Structure in the 3D BigBrain. Cerebral Cortex, 2018, 28, 2551-2562. 529 1.6 69 The functional organization of cortical feedback inputs to primary visual cortex. Nature 7.1 Neuroscience, 2018, 21, 757-764.

ARTICLE IF CITATIONS # Peak visual gamma frequency is modified across the healthy menstrual cycle. Human Brain Mapping, 531 1.9 33 2018, 39, 3187-3202. Predictable information in neural signals during resting state is reduced in autism spectrum disorder. 1.9 Human Brain Mapping, 2018, 39, 3227-3240. Modality-specific effects of aversive expectancy in the anterior insula and medial prefrontal cortex. 533 2.0 29 Pain, 2018, 159, 1529-1542. Causal inference and temporal predictions in audiovisual perception of speech and music. Annals of 534 1.8 the New York Academy of Sciences, 2018, 1423, 102-116. Toward an Integrative Theory of Thalamic Function. Annual Review of Neuroscience, 2018, 41, 163-183. 535 5.0 117 Imaging structural and functional brain development in early childhood. Nature Reviews 549 Neuroscience, 2018, 19, 123-137. The foundation: Mechanism, prediction, and falsification in Bayesian enactivism. Physics of Life 537 1.5 9 Reviews, 2018, 24, 17-20. Active inference and the anatomy of oculomotion. Neuropsychologia, 2018, 111, 334-343. 538 Generative models for clinical applications in computational psychiatry. Wiley Interdisciplinary 539 1.4 34 Reviews: Cognitive Science, 2018, 9, e1460. 540 Neurotransmitter deficits from frontotemporal lobar degeneration. Brain, 2018, 141, 1263-1285. 129 Multi-scale account of the network structure of macaque visual cortex. Brain Structure and 541 1.2 80 Function, 2018, 223, 1409-1435. Maturation of Pain Empathy from Child to Adult Shifts from Single to Multiple Neural Rhythms to 1.6 30 Support Interoceptive Représentations. Scientific Reports, 2018, 8, 1810. Laminar recordings in frontal cortex suggest distinct layers for maintenance and control of 543 working memory. Proceedings of the National Academy of Sciences of the United States of America, 3.3 234 2018, Ĭ15, 1117-1122. Learning to make external sensory stimulus predictions using internal correlations in populations of neurons. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 544 3.3 1105-1110. Putting the "dynamic―back into dynamic functional connectivity. Network Neuroscience, 2018, 2, 545 1.4 46 150-174. Cortical Circuit Models in Psychiatry., 2018,, 3-25. 546 Dynamic Causal Modeling and Its Application to Psychiatric Disorders., 2018, , 117-144. 547 4 The Hierarchical Organization of the Default, Dorsal Attention and Salience Networks in Adolescents 548 144 and Young Adults. Cerebral Cortex, 2018, 28, 726-737.

#	Article	IF	CITATIONS
549	The impact of visual art and emotional sounds in specific musical anhedonia. Progress in Brain Research, 2018, 237, 399-413.	0.9	26
550	Indexing sensory plasticity: Evidence for distinct Predictive Coding and Hebbian learning mechanisms in the cerebral cortex. NeuroImage, 2018, 176, 290-300.	2.1	30
551	Ion channels in EEG: isolating channel dysfunction in NMDA receptor antibody encephalitis. Brain, 2018, 141, 1691-1702.	3.7	58
552	Mapping Frequency-Specific Tone Predictions in the Human Auditory Cortex at High Spatial Resolution. Journal of Neuroscience, 2018, 38, 4934-4942.	1.7	12
553	Hierarchical Bayesian models of delusion. Consciousness and Cognition, 2018, 61, 129-147.	0.8	33
554	Inter-areal Balanced Amplification Enhances Signal Propagation in a Large-Scale Circuit Model of the Primate Cortex. Neuron, 2018, 98, 222-234.e8.	3.8	118
555	Unification of MAP Estimation and Marginal Inference in Recurrent Neural Networks. IEEE Transactions on Neural Networks and Learning Systems, 2018, 29, 5761-5766.	7.2	6
556	Predictive Coding in Area V4: Dynamic Shape Discrimination under Partial Occlusion. Neural Computation, 2018, 30, 1209-1257.	1.3	6
557	Active inference, enactivism and the hermeneutics of social cognition. SynthÃ^se, 2018, 195, 2627-2648.	0.6	114
558	From cognitivism to autopoiesis: towards a computational framework for the embodied mind. SynthÃ^se, 2018, 195, 2459-2482.	0.6	218
559	Primate beta oscillations and rhythmic behaviors. Journal of Neural Transmission, 2018, 125, 461-470.	1.4	34
560	Learning to Predict Consequences as a Method of Knowledge Transfer in Reinforcement Learning. IEEE Transactions on Neural Networks and Learning Systems, 2018, 29, 2259-2270.	7.2	30
561	Happily entangled: prediction, emotion, and the embodied mind. SynthÃ^se, 2018, 195, 2559-2575.	0.6	66
562	Content and misrepresentation in hierarchical generative models. SynthÈse, 2018, 195, 2387-2415.	0.6	61
563	The neural oscillations of speech processing and language comprehension: state of the art and emerging mechanisms. European Journal of Neuroscience, 2018, 48, 2609-2621.	1.2	214
564	Neural Encoding and Decoding with Deep Learning for Dynamic Natural Vision. Cerebral Cortex, 2018, 28, 4136-4160.	1.6	175
565	Conscious agent networks: Formal analysis and application to cognition. Cognitive Systems Research, 2018, 47, 186-213.	1.9	17
566	Cortical feedback signals generalise across different spatial frequencies of feedforward inputs. NeuroImage, 2018, 180, 280-290.	2.1	31

#	Article	IF	CITATIONS
567	Answering SchrĶdinger's question: A free-energy formulation. Physics of Life Reviews, 2018, 24, 1-16.	1.5	250
568	Non-invasive laminar inference with MEG: Comparison of methods and source inversion algorithms. NeuroImage, 2018, 167, 372-383.	2.1	47
569	Altered intrinsic and extrinsic connectivity in schizophrenia. NeuroImage: Clinical, 2018, 17, 704-716.	1.4	55
570	Modulating musical reward sensitivity up and down with transcranial magnetic stimulation. Nature Human Behaviour, 2018, 2, 27-32.	6.2	90
571	Great Expectations: Is there Evidence for Predictive Coding in Auditory Cortex?. Neuroscience, 2018, 389, 54-73.	1.1	281
572	Sciences of Observation. Philosophies, 2018, 3, 29.	0.4	4
573	A Predictive Processing Model of Perception and Action for Self-Other Distinction. Frontiers in Psychology, 2018, 9, 2421.	1.1	32
574	A Measure of Information Available for Inference. Entropy, 2018, 20, 512.	1.1	7
575	Meaningful-Based Cognitive Architecture. Procedia Computer Science, 2018, 145, 471-480.	1.2	9
576	Biased Competition Favoring Physical Over Emotional Pain: A Possible Explanation for the Link Between Early Adversity and Chronic Pain. Psychosomatic Medicine, 2018, 80, 880-890.	1.3	41
577	Role of Oscillations in Auditory Temporal Processing: A General Model for Temporal Processing of Sensory Information in the Brain?. Frontiers in Neuroscience, 2018, 12, 793.	1.4	15
578	In vitro neural networks minimise variational free energy. Scientific Reports, 2018, 8, 16926.	1.6	35
579	A Comparison of Predictive Spatial Augmented Reality Cues for Procedural Tasks. IEEE Transactions on Visualization and Computer Graphics, 2018, 24, 2846-2856.	2.9	32
580	Time and frequency dependent changes in resting state EEG functional connectivity following lipopolysaccharide challenge in rats. PLoS ONE, 2018, 13, e0206985.	1.1	17
581	Electrophysiology as a theoretical and methodological hub for the neural sciences. Psychophysiology, 2019, 56, e13314.	1.2	18
582	Repetition Priming Effects for Famous Faces through Dynamic Causal Modelling of Latencyâ€Corrected Eventâ€Related Brain Potentials. European Journal of Neuroscience, 2018, 49, 1330-1347.	1.2	6
583	Dance insights for neuroscience research. Senses and Society, 2018, 13, 346-353.	0.3	1
584	Cracking the Function of Layers in the Sensory Cortex. Neuron, 2018, 100, 1028-1043.	3.8	90

#	Article	IF	CITATIONS
585	Hierarchical Predictive Information Is Channeled by Asymmetric Oscillatory Activity. Neuron, 2018, 100, 1022-1024.	3.8	14
586	Altering alpha-frequency brain oscillations with rapid analog feedback-driven neurostimulation. PLoS ONE, 2018, 13, e0207781.	1.1	11
587	Learning-Related Plasticity in Dendrite-Targeting Layer 1 Interneurons. Neuron, 2018, 100, 684-699.e6.	3.8	158
588	Visuomotor Prediction Errors Modulate EEG Activity Over Parietal Cortex. Scientific Reports, 2018, 8, 12513.	1.6	33
589	NMDA-receptor antibodies alter cortical microcircuit dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E9916-E9925.	3.3	39
590	(Neural) Syntax. , 0, , 295-315.		0
591	A multi-scale layer-resolved spiking network model of resting-state dynamics in macaque visual cortical areas. PLoS Computational Biology, 2018, 14, e1006359.	1.5	91
592	Inhibition-excitation balance in the parietal cortex modulates volitional control for auditory and visual multistability. Scientific Reports, 2018, 8, 14548.	1.6	29
593	Working Memory 2.0. Neuron, 2018, 100, 463-475.	3.8	492
594	Predictive Processing: A Canonical Cortical Computation. Neuron, 2018, 100, 424-435.	3.8	477
594 595	Predictive Processing: A Canonical Cortical Computation. Neuron, 2018, 100, 424-435. Large-Scale Cortical Networks for Hierarchical Prediction and Prediction Error in the Primate Brain. Neuron, 2018, 100, 1252-1266.e3.	3.8 3.8	477 156
594 595 596	Predictive Processing: A Canonical Cortical Computation. Neuron, 2018, 100, 424-435. Large-Scale Cortical Networks for Hierarchical Prediction and Prediction Error in the Primate Brain. Neuron, 2018, 100, 1252-1266.e3. Hemispheric asymmetries and emotions: Evidence from effective connectivity. Neuropsychologia, 2018, 121, 98-105.	3.8 3.8 0.7	477 156 66
594 595 596 597	Predictive Processing: A Canonical Cortical Computation. Neuron, 2018, 100, 424-435. Large-Scale Cortical Networks for Hierarchical Prediction and Prediction Error in the Primate Brain. Neuron, 2018, 100, 1252-1266.e3. Hemispheric asymmetries and emotions: Evidence from effective connectivity. Neuropsychologia, 2018, 121, 98-105. Sensory Processing Across Conscious and Nonconscious Brain States: From Single Neurons to Distributed Networks for Inferential Representation. Frontiers in Systems Neuroscience, 2018, 12, 49.	3.8 3.8 0.7 1.2	477 156 66 32
 594 595 596 597 598 	Predictive Processing: A Canonical Cortical Computation. Neuron, 2018, 100, 424-435. Large-Scale Cortical Networks for Hierarchical Prediction and Prediction Error in the Primate Brain. Neuron, 2018, 100, 1252-1266.e3. Hemispheric asymmetries and emotions: Evidence from effective connectivity. Neuropsychologia, 2018, 121, 98-105. Sensory Processing Across Conscious and Nonconscious Brain States: From Single Neurons to Distributed Networks for Inferential Representation. Frontiers in Systems Neuroscience, 2018, 12, 49. Laminar Organization of Working Memory Signals in Human Visual Cortex. Current Biology, 2018, 28, 3435-3440.e4.	3.8 3.8 0.7 1.2 1.8	477 156 66 32 71
 594 595 596 597 598 599 	Predictive Processing: A Canonical Cortical Computation. Neuron, 2018, 100, 424-435. Large-Scale Cortical Networks for Hierarchical Prediction and Prediction Error in the Primate Brain. Neuron, 2018, 100, 1252-1266.e3. Hemispheric asymmetries and emotions: Evidence from effective connectivity. Neuropsychologia, 2018, 121, 98-105. Sensory Processing Across Conscious and Nonconscious Brain States: From Single Neurons to Distributed Networks for Inferential Representation. Frontiers in Systems Neuroscience, 2018, 12, 49. Laminar Organization of Working Memory Signals in Human Visual Cortex. Current Biology, 2018, 28, 3435-3440.e4. A neuro-cognitive process model of emotional intelligence. Biological Psychology, 2018, 139, 131-151.	 3.8 3.8 0.7 1.2 1.8 1.1 	477 156 66 32 71 45
 594 595 596 597 598 599 600 	Predictive Processing: A Canonical Cortical Computation. Neuron, 2018, 100, 424-435. Large-Scale Cortical Networks for Hierarchical Prediction and Prediction Error in the Primate Brain. Neuron, 2018, 100, 1252-1266.e3. Hemispheric asymmetries and emotions: Evidence from effective connectivity. Neuropsychologia, 2018, 121, 98-105. Sensory Processing Across Conscious and Nonconscious Brain States: From Single Neurons to Distributed Networks for Inferential Representation. Frontiers in Systems Neuroscience, 2018, 12, 49. Laminar Organization of Working Memory Signals in Human Visual Cortex. Current Biology, 2018, 28, 3435-3440.e4. A neuro-cognitive process model of emotional intelligence. Biological Psychology, 2018, 139, 131-151. The Anatomy of Inference: Cenerative Models and Brain Structure. Frontiers in Computational Neuroscience, 2018, 12, 90.	 3.8 3.8 0.7 1.2 1.8 1.1 1.2 	477 156 66 32 71 45
 594 595 596 597 598 599 600 601 	Predictive Processing: A Canonical Cortical Computation. Neuron, 2018, 100, 424-435. Large-Scale Cortical Networks for Hierarchical Prediction and Prediction Error in the Primate Brain. Neuron, 2018, 100, 1252-1266.e3. Hemispheric asymmetries and emotions: Evidence from effective connectivity. Neuropsychologia, 2018, 121, 98-105. Sensory Processing Across Conscious and Nonconscious Brain States: From Single Neurons to Distributed Networks for Inferential Representation. Frontiers in Systems Neuroscience, 2018, 12, 49. Laminar Organization of Working Memory Signals in Human Visual Cortex. Current Biology, 2018, 28, 3435-3440.e4. A neuro-cognitive process model of emotional intelligence. Biological Psychology, 2018, 139, 131-151. The Anatomy of Inference: Cenerative Models and Brain Structure. Frontiers in Computational Neuroscience, 2018, 12, 90. Low-Frequency Oscillatory Correlates of Auditory Predictive Processing in Cortical-Subcortical Networks: A MEG-Study. Scientific Reports, 2018, 8, 14007.	 3.8 3.8 0.7 1.2 1.8 1.1 1.2 1.6 	 477 156 66 32 71 45 126 30

#	Article	IF	CITATIONS
603	Stimulus-specific adaptation in the anesthetized mouse revealed by brainstem auditory evoked potentials. Hearing Research, 2018, 370, 294-301.	0.9	19
604	Neural plasticity is modified over the human menstrual cycle: Combined insight from sensory evoked potential LTP and repetition suppression. Neurobiology of Learning and Memory, 2018, 155, 422-434.	1.0	24
605	The Predictive Coding Account of Psychosis. Biological Psychiatry, 2018, 84, 634-643.	0.7	507
606	Contextual Cognition. SpringerBriefs in Psychology, 2018, , .	0.1	9
607	Musical rhythm and reading development: does beat processing matter?. Annals of the New York Academy of Sciences, 2018, 1423, 166-175.	1.8	23
608	Differentiation of Alzheimer's disease based on local and global parameters in personalized Virtual Brain models. NeuroImage: Clinical, 2018, 19, 240-251.	1.4	69
609	The neurobiology of interoception in health and disease. Annals of the New York Academy of Sciences, 2018, 1428, 112-128.	1.8	230
610	Prerequisites for an evolutionary stance on the neurobiology of language. Current Opinion in Behavioral Sciences, 2018, 21, 191-194.	2.0	2
611	One wouldn't expect an expert bowler to hit only two pins: Hierarchical predictive processing of agent-caused events. Quarterly Journal of Experimental Psychology, 2018, 71, 2643-2654.	0.6	3
612	Cortical Gradients and Laminar Projections in Mammals. Trends in Neurosciences, 2018, 41, 775-788.	4.2	114
613	How Do Expectations Shape Perception?. Trends in Cognitive Sciences, 2018, 22, 764-779.	4.0	577
614	Sparse bursts optimize information transmission in a multiplexed neural code. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E6329-E6338.	3.3	99
615	Highâ€frequency peripheral vibration decreases completion time on a number of motor tasks. European Journal of Neuroscience, 2018, 48, 1789-1802.	1.2	15
616	Theta oscillations mediate pre-activation of highly expected word initial phonemes. Scientific Reports, 2018, 8, 9503.	1.6	7
617	Dynamic communication of attention signals between the LGN and V1. Journal of Neurophysiology, 2018, 120, 1625-1639.	0.9	17
618	Expected Free Energy Formalizes Conflict Underlying Defense in Freudian Psychoanalysis. Frontiers in Psychology, 2018, 9, 1264.	1.1	19
619	Am I Self-Conscious? (Or Does Self-Organization Entail Self-Consciousness?). Frontiers in Psychology, 2018, 9, 579.	1.1	103
620	â€~Seeing the Dark': Grounding Phenomenal Transparency and Opacity in Precision Estimation for Active Inference. Frontiers in Psychology, 2018, 9, 643.	1.1	88

	Сітат	CITATION REPORT	
#	ARTICLE The Neuronal Basis of Predictive Coding Along the Auditory Pathway: From the Subcortical Roots to	IF 0.7	CITATIONS
622	Cortical Deviance Detection. Trends in Hearing, 2018, 22, 233121651878482. Biophysical Modeling of Large-Scale Brain Dynamics and Applications for ComputationalÂPsychiatry. Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, 2018, 3, 777-787.	1.1	35
623	On the Physiological Modulation and Potential Mechanisms Underlying Parieto-Occipital Alpha Oscillations. Frontiers in Computational Neuroscience, 2018, 12, 23.	1.2	54
624	Top-Down Disconnectivity in Schizophrenia During P300 Tasks. Frontiers in Computational Neuroscience, 2018, 12, 33.	1.2	17
625	Computational Neuropsychology and Bayesian Inference. Frontiers in Human Neuroscience, 2018, 12, 61.	. 1.0	104
626	The Experience Elicited by Hallucinogens Presents the Highest Similarity to Dreaming within a Large Database of Psychoactive Substance Reports. Frontiers in Neuroscience, 2018, 12, 7.	1.4	66
627	Microsaccade-rhythmic modulation of neural synchronization and coding within and across cortical areas V1 and V2. PLoS Biology, 2018, 16, e2004132.	2.6	18
628	Descending pathways generate perception of and neural responses to weak sensory input. PLoS Biology, 2018, 16, e2005239.	2.6	31
629	Active Inference in OpenAl Gym: A Paradigm forÂComputational Investigations Into PsychiatricÂIllness. Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, 2018, 3, 809-818.	1.1	30
630	Recognition Dynamics in the Brain under the Free Energy Principle. Neural Computation, 2018, 30, 2616-2659.	1.3	9
631	Quantifying the performance of MEG source reconstruction using resting state data. NeuroImage, 2018, 181, 453-460.	2.1	13
632	Principles of Temporal Processing Across the Cortical Hierarchy. Neuroscience, 2018, 389, 161-174.	1.1	73
634	Top-down beta oscillatory signaling conveys behavioral context in early visual cortex. Scientific Reports, 2018, 8, 6991.	1.6	47
635	Generic dynamic causal modelling: An illustrative application to Parkinson's disease. NeuroImage, 2018, 181, 818-830.	2.1	41
636	More than the Sum of its Parts: Perception and Neuronal Underpinnings of Sequence Processing. Neuroscience, 2018, 389, 1-3.	1.1	3
637	Cognitive computational neuroscience. Nature Neuroscience, 2018, 21, 1148-1160.	7.1	266
638	Processing of auditory novelty across the cortical hierarchy: An intracranial electrophysiology study. NeuroImage, 2018, 183, 412-424.	2.1	35
639	Propofol-induced unresponsiveness is associated with impaired feedforward connectivity in cortical hierarchy. British Journal of Anaesthesia, 2018, 121, 1084-1096.	1.5	31
#	Article	IF	CITATIONS
-----	---	-----	-----------
640	Not All Predictions Are Equal: "What―and "When―Predictions Modulate Activity in Auditory Cortex through Different Mechanisms. Journal of Neuroscience, 2018, 38, 8680-8693.	1.7	69
641	Intelligence and uncertainty: Implications of hierarchical predictive processing for the neuroscience of cognitive ability. Neuroscience and Biobehavioral Reviews, 2018, 94, 93-112.	2.9	29
642	Auditory Predictive Coding across Awareness States under Anesthesia: An Intracranial Electrophysiology Study. Journal of Neuroscience, 2018, 38, 8441-8452.	1.7	52
643	Top-down control: A unified principle of cortical learning. Neuroscience Research, 2019, 141, 23-28.	1.0	5
644	Selective Prefrontal Disinhibition in a Roving Auditory Oddball Paradigm Under N-Methyl-D-Aspartate Receptor Blockade. Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, 2019, 4, 140-150.	1.1	31
645	Indicators and Criteria of Consciousness in Animals and Intelligent Machines: An Inside-Out Approach. Frontiers in Systems Neuroscience, 2019, 13, 25.	1.2	34
646	Towards a Unified View on Pathways and Functions of Neural Recurrent Processing. Trends in Neurosciences, 2019, 42, 589-603.	4.2	62
647	Prediction-based neural mechanisms for shielding the self from existential threat. NeuroImage, 2019, 202, 116080.	2.1	13
648	Direct electrophysiological mapping of human pitch-related processing in auditory cortex. NeuroImage, 2019, 202, 116076.	2.1	19
649	The <i>power</i> of neural oscillations to inform sentence comprehension: A linguistic perspective. Language and Linguistics Compass, 2019, 13, e12347.	1.3	55
650	The rough sound of salience enhances aversion through neural synchronisation. Nature Communications, 2019, 10, 3671.	5.8	51
651	Exploring how material cues drive sensorimotor prediction across different levels of autistic-like traits. Experimental Brain Research, 2019, 237, 2255-2267.	0.7	9
652	Biophysical Psychiatry—How Computational Neuroscience Can Help to Understand the Complex Mechanisms of Mental Disorders. Frontiers in Psychiatry, 2019, 10, 534.	1.3	19
653	Body representations as indexed by oscillatory EEG activities in the context of tactile novelty processing. Neuropsychologia, 2019, 132, 107144.	0.7	2
654	Dynamic causal modeling for calcium imaging: Exploration of differential effective connectivity for sensory processing in a barrel cortical column. NeuroImage, 2019, 201, 116008.	2.1	4
655	A Multi-scale View of the Emergent Complexity of Life: A Free-Energy Proposal. Springer Proceedings in Complexity, 2019, , 195-227.	0.2	25
656	Functional Oxides for Photoneuromorphic Engineering: Toward a Solar Brain. Advanced Materials Interfaces, 2019, 6, 1900471.	1.9	31
657	Spectral fingerprints or spectral tilt? Evidence for distinct oscillatory signatures of memory formation. PLoS Biology, 2019, 17, e3000403.	2.6	52

#	Article	IF	Citations
658	The peripheral preview effect with faces: Combined EEG and eye-tracking suggests multiple stages of trans-saccadic predictive and non-predictive processing. NeuroImage, 2019, 200, 344-362.	2.1	30
659	Being right matters: Model-compliant events in predictive processing. PLoS ONE, 2019, 14, e0218311.	1.1	3
660	The Embodied Penman: Effectorâ€6pecific Motor–Language Integration During Handwriting. Cognitive Science, 2019, 43, e12767.	0.8	6
661	Universal Darwinism and the Origins of Order. Springer Proceedings in Complexity, 2019, , 261-290.	0.2	2
662	Bayesian Filtering with Multiple Internal Models: Toward a Theory of Social Intelligence. Neural Computation, 2019, 31, 2390-2431.	1.3	25
663	Mechanistic unity of the predictive mind. Theory and Psychology, 2019, 29, 657-675.	0.7	15
665	Simultaneous EEG-NIRS Measurement of the Inferior Parietal Lobule During a Reaching Task With Delayed Visual Feedback. Frontiers in Human Neuroscience, 2019, 13, 301.	1.0	17
666	Novel Functions of Feedback in Electrosensory Processing. Frontiers in Integrative Neuroscience, 2019, 13, 52.	1.0	9
667	Between-subject variability in the influence of mental imagery on conscious perception. Scientific Reports, 2019, 9, 15658.	1.6	11
668	A Sound-Sensitive Source of Alpha Oscillations in Human Non-Primary Auditory Cortex. Journal of Neuroscience, 2019, 39, 8679-8689.	1.7	47
669	Challenges to the Modularity Thesis Under the Bayesian Brain Models. Frontiers in Human Neuroscience, 2019, 13, 353.	1.0	5
670	Structure learning in coupled dynamical systems and dynamic causal modelling. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20190048.	1.6	17
671	Noise correlations and perceptual inference. Current Opinion in Neurobiology, 2019, 58, 209-217.	2.0	8
672	Predictive coding of visual motion in both monocular and binocular human visual processing. Journal of Vision, 2019, 19, 3.	0.1	29
673	The Role of Top-Down Modulation in Shaping Sensory Processing Across Brain States: Implications for Consciousness. Frontiers in Systems Neuroscience, 2019, 13, 31.	1.2	27
674	Laminar specificity of oscillatory coherence in the auditory cortex. Brain Structure and Function, 2019, 224, 2907-2924.	1.2	14
675	The Synaptic Organization of Layer 6 Circuits Reveals Inhibition as a Major Output of a Neocortical Sublamina. Cell Reports, 2019, 28, 3131-3143.e5.	2.9	65
676	Multiple Nonauditory Cortical Regions Innervate the Auditory Midbrain. Journal of Neuroscience, 2019, 39, 8916-8928.	1.7	35

#	Article	IF	CITATIONS
677	Reframing PTSD for computational psychiatry with the active inference framework. Cognitive Neuropsychiatry, 2019, 24, 347-368.	0.7	27
678	Alpha oscillations and traveling waves: Signatures of predictive coding?. PLoS Biology, 2019, 17, e3000487.	2.6	107
679	Laminar specific fMRI reveals directed interactions in distributed networks during language processing. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 21185-21190.	3.3	62
680	Human motor cortical beta bursts relate to movement planning and response errors. PLoS Biology, 2019, 17, e3000479.	2.6	134
681	Waves of prediction. PLoS Biology, 2019, 17, e3000426.	2.6	65
682	Minimizing Precision-Weighted Sensory Prediction Errors via Memory Formation and Switching in Motor Adaptation. Journal of Neuroscience, 2019, 39, 9237-9250.	1.7	30
683	Sex Differences in Body Ownership in Adults With Autism Spectrum Disorder. Frontiers in Psychology, 2019, 10, 168.	1.1	3
684	Theories of Error Back-Propagation in the Brain. Trends in Cognitive Sciences, 2019, 23, 235-250.	4.0	247
685	Cumulative inhibition in neural networks. Cognitive Processing, 2019, 20, 87-102.	0.7	4
686	Neuronal Development of Hearing and Language: Cochlear Implants and Critical Periods. Annual Review of Neuroscience, 2019, 42, 47-65.	5.0	105
687	Anticipatory Neural Activity Improves the Decoding Accuracy for Dynamic Head-Direction Signals. Journal of Neuroscience, 2019, 39, 2847-2859.	1.7	6
688	Mechanistic Science: A New Approach to Comprehensive Psychopathology Research That Relates Psychological and Biological Phenomena. Clinical Psychological Science, 2019, 7, 196-215.	2.4	24
689	A mosaic of Chu spaces and Channel Theory II: applications to object identification and mereological complexity. Journal of Experimental and Theoretical Artificial Intelligence, 2019, 31, 237-265.	1.8	12
690	Selective Modulation of Early Visual Cortical Activity by Movement Intention. Cerebral Cortex, 2019, 29, 4662-4678.	1.6	43
691	Neuron density fundamentally relates to architecture and connectivity of the primate cerebral cortex. NeuroImage, 2019, 189, 777-792.	2.1	44
692	The contemplative exercise through the lenses of predictive processing: A promising approach. Progress in Brain Research, 2019, 244, 299-322.	0.9	24
693	A low-threshold potassium current enhances sparseness and reliability in a model of avian auditory cortex. PLoS Computational Biology, 2019, 15, e1006723.	1.5	5
694	The hierarchically mechanistic mind: an evolutionary systems theory of the human brain, cognition, and behavior. Cognitive, Affective and Behavioral Neuroscience, 2019, 19, 1319-1351.	1.0	105

#	Article	IF	CITATIONS
695	An architectonic type principle integrates macroscopic cortico-cortical connections with intrinsic cortical circuits of the primate brain. Network Neuroscience, 2019, 3, 905-923.	1.4	45
696	Sensorimotor beta power reflects the precision-weighting afforded to sensory prediction errors. Neurolmage, 2019, 200, 59-71.	2.1	48
697	Action-Dependent Processing of Touch in the Human Parietal Operculum and Posterior Insula. Cerebral Cortex, 2020, 30, 607-617.	1.6	21
698	REBUS and the Anarchic Brain: Toward a Unified Model of the Brain Action of Psychedelics. Pharmacological Reviews, 2019, 71, 316-344.	7.1	467
699	A guide to group effective connectivity analysis, part 1: First level analysis with DCM for fMRI. NeuroImage, 2019, 200, 174-190.	2.1	242
700	Layer-specific integration of locomotion and sensory information in mouse barrel cortex. Nature Communications, 2019, 10, 2585.	5.8	92
701	Reconsidering Spatial Priors In EEG Source Estimation : Does White Matter Contribute to EEG Rhythms?. , 2019, , .		0
702	A guide to group effective connectivity analysis, part 2: Second level analysis with PEB. NeuroImage, 2019, 200, 12-25.	2.1	267
703	Finding likeness: Neural plasticity and ritual experience. Anthropology Today, 2019, 35, 3-6.	0.3	2
704	Figure-Ground Modulation in the Human Lateral Geniculate Nucleus Is Distinguishable from Top-Down Attention. Current Biology, 2019, 29, 2051-2057.e3.	1.8	24
705	First Error-Based Supervised Learning Algorithm for Spiking Neural Networks. Frontiers in Neuroscience, 2019, 13, 559.	1.4	11
706	Dynamic Causal Modelling of Active Vision. Journal of Neuroscience, 2019, 39, 6265-6275.	1.7	15
707	Low-Frequency Oscillations Code Speech during Verbal Working Memory. Journal of Neuroscience, 2019, 39, 6498-6512.	1.7	19
708	Frequency-specific brain dynamics related to prediction during language comprehension. NeuroImage, 2019, 198, 283-295.	2.1	38
709	High-beta/low-gamma frequency activity reflects top-down predictive coding during a spatial working memory test. Experimental Brain Research, 2019, 237, 1881-1888.	0.7	7
710	Interactions between Conscious and Subconscious Signals: Selective Attention under Feature-Based Competition Increases Neural Selectivity during Brain Adaptation. Journal of Neuroscience, 2019, 39, 5506-5516.	1.7	4
711	Variational autoencoder: An unsupervised model for encoding and decoding fMRI activity in visual cortex. NeuroImage, 2019, 198, 125-136.	2.1	100
712	Dissociating neural activity associated with the subjective phenomenology of monocular stereopsis: An EEG study. Neuropsychologia, 2019, 129, 357-371.	0.7	6

#	Article	IF	CITATIONS
713	Increase in Mutual Information During Interaction with the Environment Contributes to Perception. Entropy, 2019, 21, 365.	1.1	25
714	Excitatory versus inhibitory feedback in Bayesian formulations of scene construction. Journal of the Royal Society Interface, 2019, 16, 20180344.	1.5	10
715	A Retinal Circuit Generating a Dynamic Predictive Code for Oriented Features. Neuron, 2019, 102, 1211-1222.e3.	3.8	30
716	Prediction and perception: Insights for (and from) tinnitus. Neuroscience and Biobehavioral Reviews, 2019, 102, 1-12.	2.9	34
717	The neural dynamics of hierarchical Bayesian causal inference in multisensory perception. Nature Communications, 2019, 10, 1907.	5.8	118
718	Hierarchical minds and the perception/cognition distinction. Inquiry (United Kingdom), 2023, 66, 275-297.	0.4	9
719	The Neural Dynamics of Novel Scene Imagery. Journal of Neuroscience, 2019, 39, 4375-4386.	1.7	74
720	No Evidence that Predictions and Attention Modulate the First Feedforward Sweep of Cortical Information Processing. Cerebral Cortex, 2019, 29, 2261-2278.	1.6	52
721	Neuronal message passing using Mean-field, Bethe, and Marginal approximations. Scientific Reports, 2019, 9, 1889.	1.6	88
722	Optimizing Data for Modeling Neuronal Responses. Frontiers in Neuroscience, 2018, 12, 986.	14	11
723	Grammatical class modulates the (left) inferior frontal gyrus within 100 milliseconds when syntactic context is predictive. Scientific Reports, 2019, 9, 4830.	1.6	12
723 724	Grammatical class modulates the (left) inferior frontal gyrus within 100 milliseconds when syntactic context is predictive. Scientific Reports, 2019, 9, 4830. Toward a Neurobiologically Plausible Model of Language-Related, Negative Event-Related Potentials. Frontiers in Psychology, 2019, 10, 298.	1.6	12 120
723 724 725	Grammatical class modulates the (left) inferior frontal gyrus within 100 milliseconds when syntactic context is predictive. Scientific Reports, 2019, 9, 4830. Toward a Neurobiologically Plausible Model of Language-Related, Negative Event-Related Potentials. Frontiers in Psychology, 2019, 10, 298. Emergence of cognitive priming and structure building from the hierarchical interaction of canonical microcircuit models. Biological Cybernetics, 2019, 113, 273-291.	1.6 1.1 0.6	12 120 4
723 724 725 726	Grammatical class modulates the (left) inferior frontal gyrus within 100 milliseconds when syntactic context is predictive. Scientific Reports, 2019, 9, 4830. Toward a Neurobiologically Plausible Model of Language-Related, Negative Event-Related Potentials. Frontiers in Psychology, 2019, 10, 298. Emergence of cognitive priming and structure building from the hierarchical interaction of canonical microcircuit models. Biological Cybernetics, 2019, 113, 273-291. Shared Neural Mechanisms of Visual Perception and Imagery. Trends in Cognitive Sciences, 2019, 23, 423-434.	1.6 1.1 0.6 4.0	12 120 4 161
723 724 725 726 727	Grammatical class modulates the (left) inferior frontal gyrus within 100 milliseconds when syntactic context is predictive. Scientific Reports, 2019, 9, 4830. Toward a Neurobiologically Plausible Model of Language-Related, Negative Event-Related Potentials. Frontiers in Psychology, 2019, 10, 298. Emergence of cognitive priming and structure building from the hierarchical interaction of canonical microcircuit models. Biological Cybernetics, 2019, 113, 273-291. Shared Neural Mechanisms of Visual Perception and Imagery. Trends in Cognitive Sciences, 2019, 23, 423-434. Perceptual inference employs intrinsic alpha frequency to resolve perceptual ambiguity. PLoS Biology, 2019, 17, e3000025.	1.6 1.1 0.6 4.0 2.6	12 120 4 161 20
723 724 725 726 727 728	Grammatical class modulates the (left) inferior frontal gyrus within 100 milliseconds when syntactic context is predictive. Scientific Reports, 2019, 9, 4830. Toward a Neurobiologically Plausible Model of Language-Related, Negative Event-Related Potentials. Frontiers in Psychology, 2019, 10, 298. Emergence of cognitive priming and structure building from the hierarchical interaction of canonical microcircuit models. Biological Cybernetics, 2019, 113, 273-291. Shared Neural Mechanisms of Visual Perception and Imagery. Trends in Cognitive Sciences, 2019, 23, 423-434. Perceptual inference employs intrinsic alpha frequency to resolve perceptual ambiguity. PLoS Biology, 2019, 17, e3000025. Thalamocortical dynamics underlying spontaneous transitions in beta power in Parkinsonism. NeuroImage, 2019, 193, 103-114.	1.6 1.1 0.6 4.0 2.6 2.1	12 120 4 161 20 21
 723 724 725 726 727 728 729 	Grammatical class modulates the (left) inferior frontal gyrus within 100 milliseconds when syntactic context is predictive. Scientific Reports, 2019, 9, 4830. Toward a Neurobiologically Plausible Model of Language-Related, Negative Event-Related Potentials. Frontiers in Psychology, 2019, 10, 298. Emergence of cognitive priming and structure building from the hierarchical interaction of canonical microcircuit models. Biological Cybernetics, 2019, 113, 273-291. Shared Neural Mechanisms of Visual Perception and Imagery. Trends in Cognitive Sciences, 2019, 23, 423-434. Perceptual inference employs intrinsic alpha frequency to resolve perceptual ambiguity. PLoS Biology, 2019, 17, e3000025. Thalamocortical dynamics underlying spontaneous transitions in beta power in Parkinsonism. NeuroImage, 2019, 193, 103-114. Explaining event-related fields by a mechanistic model encapsulating the anatomical structure of auditory cortex. Biological Cybernetics, 2019, 113, 321-345.	1.6 1.1 0.6 4.0 2.6 2.1 0.6	12 120 4 161 20 21

ARTICLE IF CITATIONS # Long-standing problems in speech perception dissolve within an information-theoretic perspective. 731 0.7 11 Attention, Perception, and Psychophysics, 2019, 81, 861-883. A Bayesian Account of the Sensory-Motor Interactions Underlying Symptoms of Tourette Syndrome. 1.3 Frontiers in Psychiatry, 2019, 10, 29. From story comprehension to the neurobiology of language. Language, Cognition and Neuroscience, 733 0.7 18 2019, 34, 405-410. Predictive Coding as Stimulus Avoidance in Spiking Neural Networks., 2019,,. 734 The impact of neuroimaging advancement on neurocognitive evaluation in pediatric brain tumor 735 0.3 5 survivors: A review. Brain Science Advances, 2019, 5, 117-127. Sensorimotor Cortical Oscillations during Movement Preparation in 16p11.2 Deletion Carriers. Journal of Neuroscience, 2019, 39, 7321-7331. 1.7 Passing the Message: Representation Transfer in Modular Balanced Networks. Frontiers in 737 1.2 12 Computational Neuroscience, 2019, 13, 79. Simulating Emotions: An Active Inference Model of Emotional State Inference and Emotion Concept 1.1 Learning. Frontiers in Psychology, 2019, 10, 2844. 739 Temporal Learning of Dynamics in Complex Neuron Models using Backpropagation., 2019,,. 0 740 A Predictive Coding Model for Evoked and Spontaneous Pain Perception., 2019, 2019, 2964-2967. Learning to synchronize: How biological agents can couple neural task modules for dealing with the 741 1.5 38 stability-plasticity dilemma. PLoS Computational Biology, 2019, 15, e1006604. The Role of Cortico-Thalamo-Cortical Circuits in Language: Recurrent Circuits Revisited. 742 2.5 24 Neuropsychology Review, 2021, 31, 516-533. Reduced-Gate Convolutional LSTM Architecture for Next-Frame Video Prediction Using Predictive 743 7 Coding., 2019,,. Understanding the Effects of General Anesthetics on Cortical Network Activity Using <i>Ex Vivo</i>Preparations. Anesthesiology, 2019, 130, 1049-1063. 744 1.3 An Embodied Neurocomputational Framework for Organically Integrating Biopsychosocial Processes: An Application to the Role of Social Support in Health and Disease. Psychosomatic Medicine, 2019, 81, 745 1.3 24 125-145. How Do Actions Influence Attitudes? An Inferential Account of the Impact of Action Performance on 746 Stimulus Evaluation. Personality and Social Psychology Review, 2019, 23, 267-284. Direct Evidence for Prediction Signals in Frontal Cortex Independent of Prediction Error. Cerebral 747 1.6 31 Cortex, 2019, 29, 4530-4538. Embodied Precision: Intranasal Oxytocin Modulates Multisensory Integration. Journal of Cognitive 748 1.1 Neuroscience, 2019, 31, 592-606.

		CITATION R	EPORT	
#	Article		IF	CITATIONS
749	Spiking networks as efficient distributed controllers. Biological Cybernetics, 2019, 113	, 179-190.	0.6	2
750	Neurophysiological effects of continuous cortical stimulation in epilepsy – Spike and ECoG activity. Clinical Neurophysiology, 2019, 130, 38-45.	spontaneous	0.7	5
751	Bridging the Gap between Connectome and Transcriptome. Trends in Cognitive Scienc	es, 2019, 23, 34-50.	4.0	245
752	Differences in theta coherence between spatial and nonspatial attention using intracra electroencephalographic signals in humans. Human Brain Mapping, 2019, 40, 2336-23	nial 46.	1.9	5
753	The hierarchically mechanistic mind: A free-energy formulation of the human psyche. P Reviews, 2019, 31, 104-121.	hysics of Life	1.5	127
754	Cortical microcircuitry of performance monitoring. Nature Neuroscience, 2019, 22, 26	5-274.	7.1	68
755	Clinical and biomarker changes in presymptomatic genetic frontotemporal dementia. I Aging, 2019, 76, 133-140.	Veurobiology of	1.5	39
756	Reactive and predictive homeostasis: Roles of orexin/hypocretin neurons. Neuropharm 154, 61-67.	acology, 2019,	2.0	32
757	Oscillatory dynamics of cortical functional connections in semantic prediction. Human Mapping, 2019, 40, 1856-1866.	Brain	1.9	18
758	Words as social tools: Language, sociality and inner grounding in abstract concepts. P Reviews, 2019, 29, 120-153.	nysics of Life	1.5	126
759	Alterations in Schizophrenia-Associated Genes Can Lead to Increased Power in Delta C Cerebral Cortex, 2019, 29, 875-891.	scillations.	1.6	30
760	The sound of beauty: How complexity determines aesthetic preference. Acta Psycholog 146-152.	gica, 2019, 192,	0.7	18
761	An information-theoretic perspective on the costs of cognition. Neuropsychologia, 202	19, 123, 5-18.	0.7	76
762	Functional connectivity with cortical depth assessed by resting state fMRI of subregion squirrel monkeys. Human Brain Mapping, 2019, 40, 329-339.	ns of S1 in	1.9	11
763	Primary Interoceptive Cortex Activity during Simulated Experiences of the Body. Journa Neuroscience, 2019, 31, 221-235.	I of Cognitive	1.1	23
764	Laminar fMRI and computational theories of brain function. NeuroImage, 2019, 197, 6	99-706.	2.1	54
765	Laminar fMRI: Applications for cognitive neuroscience. NeuroImage, 2019, 197, 785-79	91.	2.1	140
766	Cortical layers, rhythms and BOLD signals. NeuroImage, 2019, 197, 689-698.		2.1	74

ARTICLE IF CITATIONS # Estimating Directed Connectivity from Cortical Recordings and Reconstructed Sources. Brain 767 0.8 24 Topography, 2019, 32, 741-752. Working Memory Load Modulates Neuronal Coupling. Cerebral Cortex, 2019, 29, 1670-1681. 768 1.6 769 Dynamic causal modelling revisited. NeuroImage, 2019, 199, 730-744. 2.1 196 Bayesian Modelling of Induced Responses and Neuronal Rhythms. Brain Topography, 2019, 32, 569-582. 0.8 Predictive coding and thought. SynthÃ[^]se, 2020, 197, 1749-1775. 771 0.6 35 Predictive cues for auditory stream formation in humans and monkeys. European Journal of Neuroscience, 2020, 51, 1254-1264. 1.2 Predictive coding in auditory perception: challenges and unresolved questions. European Journal of 773 1.2 46 Neuroscience, 2020, 51, 1151-1160. Neural Synchrony and the Causal Efficacy of Consciousness. Topoi, 2020, 39, 1057-1072. 774 0.8 Toward A database of intracranial electrophysiology during natural language presentation. Language, 775 0.7 1 Cognition and Neuroscience, 2020, 35, 729-738. Altered functional connectivity patterns of insular subregions in major depressive disorder after 1.1 electroconvulsive therapy. Brain Imaging and Behavior, 2020, 14, 753-761. Co-registration of eye movements and neuroimaging for studying contextual predictions in natural 777 0.7 17 reading. Language, Cognition and Neuroscience, 2020, 35, 595-612. Predictive entrainment of natural speech through two fronto-motor top-down channels. Language, 38 Cognition and Neuroscience, 2020, 35, 739-751 A Bayesian Account of Psychopathy: A Model of Lacks Remorse and Self-Aggrandizing. Computational 779 1.1 9 Psychiatry, 2020, 2, 92. Why context matters? Divisive normalization and canonical microcircuits in psychiatric disorders. 1.0 Neuroscience Research, 2020, 156, 130-140. Blindness, Psychosis, and the Visual Construction of the World. Schizophrenia Bulletin, 2020, 46, 781 2.311 1418-1425. Distorted Cognitive Processes in Major Depression: A Predictive Processing Perspective. Biological Psychiatry, 2020, 87, 388-398. Attentional Modulation of Vision Versus Proprioception During Action. Cerebral Cortex, 2020, 30, 783 1.6 40 1637-1648. Emergence of \hat{l}^2 and \hat{l}^3 networks following multisensory training. NeuroImage, 2020, 206, 116313. 784 2.1

#	Article	IF	CITATIONS
785	Do domain-general executive resources play a role in linguistic prediction? Re-evaluation of the evidence and a path forward. Neuropsychologia, 2020, 136, 107258.	0.7	33
786	Learning, memory and consolidation mechanisms for behavioral control in hierarchically organized corticoâ€basal ganglia systems. Hippocampus, 2020, 30, 73-98.	0.9	45
787	Improving audio-visual temporal perception through training enhances beta-band activity. NeuroImage, 2020, 206, 116312.	2.1	24
788	fMRI reveals language-specific predictive coding during naturalistic sentence comprehension. Neuropsychologia, 2020, 138, 107307.	0.7	123
789	Neurophysiological basis of contrast dependent BOLD orientation tuning. NeuroImage, 2020, 206, 116323.	2.1	5
790	Effective connectivity modulations related to win and loss outcomes. NeuroImage, 2020, 207, 116369.	2.1	5
791	Neuropharmacological modulation of the aberrant bodily self through psychedelics. Neuroscience and Biobehavioral Reviews, 2020, 108, 526-541.	2.9	37
792	Switching Operation Modes in the Neocortex via Cholinergic Neuromodulation. Molecular Neurobiology, 2020, 57, 139-149.	1.9	4
793	Perceptual Expectations Modulate Low-Frequency Activity: A Statistical Learning Magnetoencephalography Study. Journal of Cognitive Neuroscience, 2020, 32, 691-702.	1.1	5
794	Two Distinct Neural Timescales for Predictive Speech Processing. Neuron, 2020, 105, 385-393.e9.	3.8	134
795	Suboptimal learning of tactile-spatial predictions in patients with complex regional pain syndrome. Pain, 2020, 161, 369-378.	2.0	7
796	Content-based Dissociation of Hippocampal Involvement in Prediction. Journal of Cognitive Neuroscience, 2020, 32, 527-545.	1.1	24
797	Auditory Mismatch Negativity Under Predictive Coding Framework and Its Role in Psychotic Disorders. Frontiers in Psychiatry, 2020, 11, 557932.	1.3	15
798	Predictive coding: Neuroscience and art. Progress in Brain Research, 2020, 253, 139-167.	0.9	3
799	Higher and deeper: Bringing layer fMRI to association cortex. Progress in Neurobiology, 2021, 207, 101930.	2.8	21
800	Altered thalamocortical structural connectivity in persons with schizophrenia and healthy siblings. NeuroImage: Clinical, 2020, 28, 102370.	1.4	21
801	Systematic modelling of the development of laminar projection origins in the cerebral cortex: Interactions of spatio-temporal patterns of neurogenesis and cellular heterogeneity. PLoS Computational Biology, 2020, 16, e1007991.	1.5	4
802	Cellular Mechanisms of Conscious Processing. Trends in Cognitive Sciences, 2020, 24, 814-825.	4.0	144

ARTICLE IF CITATIONS # Optogenetic manipulation of an ascending arousal system tunes cortical broadband gamma power and 803 4.1 26 reveals functional deficits relevant to schizophrenia. Molecular Psychiatry, 2021, 26, 3461-3475. A Layer 3â†'5 Circuit in Auditory Cortex That Contributes to Pre-pulse Inhibition of the Acoustic Startle 804 1.4 Response. Frontiers in Neural Circuits, 2020, 14, 553208. Core and matrix thalamic sub-populations relate to spatio-temporal cortical connectivity gradients. 805 2.1 58 NeuroImage, 2020, 222, 117224. Layer and rhythm specificity for predictive routing. Proceedings of the National Academy of Sciences 806 133 of the United States of América, 2020, 117, 31459-31469. Synchrony, flexible network configuration, and linking neural events to behavior. Current Opinion in 807 0.9 6 Physiology, 2020, 16, 98-108. 808 A thalamocortical top-down circuit for associative memory. Science, 2020, 370, 844-848. 6.0 Neural signs and mechanisms of consciousness: Is there a potential convergence of theories of 809 2.9 108 consciousness in sight?. Neuroscience and Biobehavioral Reviews, 2020, 118, 568-587. Cortical-like dynamics in recurrent circuits optimized for sampling-based probabilistic inference. 7.1 76 Nature Neuroscience, 2020, 23, 1138-1149. Parallel Neural Multiprocessing with Gamma Frequency Latencies. Neural Computation, 2020, 32, 811 1.3 1 1635-1663. A Predictive Coding Perspective on Mismatch Negativity Impairment in Schizophrenia. Frontiers in 1.3 Psychiatry, 2020, 11, 660. An Attempt at a Unified Theory of the Neocortical Microcircuit in Sensory Cortex. Frontiers in Neural 813 7 1.4 Circuits, 2020, 14, 40. Enhanced phosphorylation of S6 protein in mouse cortical layer V and subplate neurons.. 814 0.6 NeuroReport, 2020, 31, 762-769. Flexible neural connectivity under constraints on total connection strength. PLoS Computational 815 1.5 1 Biology, 2020, 16, e1008080. In Search of Social Laws for Knowledge Management., 2020, , 53-89. Adaptation to feedback representation of illusory orientation produced from flash grab effect. 817 5.8 8 Nature Communications, 2020, 11, 3925. Large-scale dynamics of perceptual decision information across human cortex. Nature 5.8 Communications, 2020, 11, 5109. Lower Baseline Variability Gives Rise to Lower Detection Thresholds in Midbrain than Hindbrain 819 1.1 2 Electrosensory Neurons. Neuroscience, 2020, 448, 43-54. Value-guided remapping of sensory cortex by lateral orbitofrontal cortex. Nature, 2020, 585, 245-250. 109

#	Article	IF	Citations
821	Artificial Neural Networks for Neuroscientists: A Primer. Neuron, 2020, 107, 1048-1070.	3.8	148
822	Reverse-Engineering Neural Networks to Characterize Their Cost Functions. Neural Computation, 2020, 32, 2085-2121.	1.3	9
823	Semantic Predictive Coding with Arbitrated Generative Adversarial Networks. Machine Learning and Knowledge Extraction, 2020, 2, 307-326.	3.2	2
824	A Predictive-Coding Network That Is Both Discriminative and Generative. Neural Computation, 2020, 32, 1836-1862.	1.3	2
825	Beta-Band Activity Is a Signature of Statistical Learning. Journal of Neuroscience, 2020, 40, 7523-7530.	1.7	13
826	Learning Generative State Space Models for Active Inference. Frontiers in Computational Neuroscience, 2020, 14, 574372.	1.2	24
827	Stimulus Feature-Specific Information Flow Along the Columnar Cortical Microcircuit Revealed by Multivariate Laminar Spiking Analysis. Frontiers in Systems Neuroscience, 2020, 14, 600601.	1.2	10
828	Spatiotemporal transformations for gaze control. Physiological Reports, 2020, 8, e14533.	0.7	17
829	A Connectome-Based, Corticothalamic Model of State- and Stimulation-Dependent Modulation of Rhythmic Neural Activity and Connectivity. Frontiers in Computational Neuroscience, 2020, 14, 575143.	1.2	11
830	Active inference on discrete state-spaces: A synthesis. Journal of Mathematical Psychology, 2020, 99, 102447.	1.0	119
831	Cortical beta oscillations reflect the contextual gating of visual action feedback. NeuroImage, 2020, 222, 117267.	2.1	20
832	The promise of layer-specific neuroimaging for testing predictive coding theories of psychosis. Schizophrenia Research, 2022, 245, 68-76.	1.1	27
833	A Disinhibitory Circuit for Contextual Modulation in Primary Visual Cortex. Neuron, 2020, 108, 1181-1193.e8.	3.8	77
834	EEG Correlates of Learning From Speech Presented in Environmental Noise. Frontiers in Psychology, 2020, 11, 1850.	1.1	6
835	Defying Expectations: How Neurons Compute Prediction Errors in Visual Cortex. Neuron, 2020, 108, 1016-1019.	3.8	8
836	Feedforward prediction error signals during episodic memory retrieval. Nature Communications, 2020, 11, 6075.	5.8	14
837	Audio-Visual Training in Older Adults: 2-Interval-Forced Choice Task Improves Performance. Frontiers in Neuroscience, 2020, 14, 569212.	1.4	11
838	ToyArchitecture: Unsupervised learning of interpretable models of the environment. PLoS ONE, 2020, 15, e0230432.	1.1	0

	CITATION	REPORT	
#	Article	IF	CITATIONS
839	Feedback generates a second receptive field in neurons of the visual cortex. Nature, 2020, 582, 545-549.	13.7	119
840	Omission related brain responses reflect specific and unspecific action-effect couplings. NeuroImage, 2020, 215, 116840.	2.1	19
841	Entrainment revisited: a commentary on Meyer, Sun, and Martin (2020). Language, Cognition and Neuroscience, 2020, 35, 1119-1123.	0.7	19
842	Learning in brain-computer interface control evidenced by joint decomposition of brain and behavior. Journal of Neural Engineering, 2020, 17, 046018.	1.8	15
843	Cohort study into the neural correlates of postoperative delirium: the role of connectivity and slow-wave activity. British Journal of Anaesthesia, 2020, 125, 55-66.	1.5	61
844	Tutorial Review of Bio-Inspired Approaches to Robotic Manipulation for Space Debris Salvage. Biomimetics, 2020, 5, 19.	1.5	12
845	Neuronal Oscillations of Wakefulness and Sleep. , 2020, , .		1
846	Significance of Beta-Band Oscillations in Autism Spectrum Disorders During Motor Response Inhibition Tasks: A MEG Study. Brain Topography, 2020, 33, 355-374.	0.8	4
847	Anticipation-induced delta phase reset improves human olfactory perception. PLoS Biology, 2020, 18, e3000724.	2.6	8
848	Irrelevant Predictions: Distractor Rhythmicity Modulates Neural Encoding in Auditory Cortex. Cerebral Cortex, 2020, 30, 5792-5805.	1.6	6
849	Movement-Related Signals in Sensory Areas: Roles in Natural Behavior. Trends in Neurosciences, 2020, 43, 581-595.	4.2	97
850	Affect-biased attention and predictive processing. Cognition, 2020, 203, 104370.	1.1	22
851	Precision weighting of cortical unsigned prediction error signals benefits learning, is mediated by dopamine, and is impaired in psychosis. Molecular Psychiatry, 2021, 26, 5320-5333.	4.1	53
852	Degeneracy and Redundancy in Active Inference. Cerebral Cortex, 2020, 30, 5750-5766.	1.6	31
853	GABA-ergic Dynamics in Human Frontotemporal Networks Confirmed by Pharmaco-Magnetoencephalography. Journal of Neuroscience, 2020, 40, 1640-1649.	1.7	27
854	The role of Hebbian learning in human perception: a methodological and theoretical review of the human Visual Long-Term Potentiation paradigm. Neuroscience and Biobehavioral Reviews, 2020, 115, 220-237.	2.9	29
855	The human motor cortex microcircuit: insights for neurodegenerative disease. Nature Reviews Neuroscience, 2020, 21, 401-415.	4.9	56
856	A Computational Theory of Mindfulness Based Cognitive Therapy from the "Bayesian Brain― Perspective. Frontiers in Psychiatry, 2020, 11, 404.	1.3	14

.

#	Article	IF	CITATIONS
857	A Modeling Study of the Emergence of Eye Position Gain Fields Modulating the Responses of Visual Neurons in the Brain. Frontiers in Neural Circuits, 2020, 14, 30.	1.4	1
858	An Integrated World Modeling Theory (IWMT) of Consciousness: Combining Integrated Information and Global Neuronal Workspace Theories With the Free Energy Principle and Active Inference Framework; Toward Solving the Hard Problem and Characterizing Agentic Causation. Frontiers in Artificial Intelligence, 2020, 3, 30.	2.0	61
859	Dopamine modulates subcortical responses to surprising sounds. PLoS Biology, 2020, 18, e3000744.	2.6	28
860	Comparing dynamic causal models of neurovascular coupling with fMRI and EEG/MEG. NeuroImage, 2020, 216, 116734.	2.1	31
861	Evaluating the neurophysiological evidence for predictive processing as a model of perception. Annals of the New York Academy of Sciences, 2020, 1464, 242-268.	1.8	152
862	Constructing and Forgetting Temporal Context in the Human Cerebral Cortex. Neuron, 2020, 106, 675-686.e11.	3.8	70
864	Clustering of Neural Activity: A Design Principle for Population Codes. Frontiers in Computational Neuroscience, 2020, 14, 20.	1.2	9
865	Dynamic causal modeling of hippocampal activity measured via mesoscopic voltage-sensitive dye imaging. Neurolmage, 2020, 213, 116755.	2.1	1
866	Early gamma-oscillations as correlate of localized nociceptive processing in primary sensorimotor cortex. Journal of Neurophysiology, 2020, 123, 1711-1726.	0.9	33
867	A World Unto Itself: Human Communication as Active Inference. Frontiers in Psychology, 2020, 11, 417.	1.1	53
868	Active inference under visuo-proprioceptive conflict: Simulation and empirical results. Scientific Reports, 2020, 10, 4010.	1.6	35
869	Do Process-1 simulations generate the epistemic feelings that drive Process-2 decision making?.		11
	Cognitive Processing, 2020, 21, 533-553.	0.7	11
870	Cognitive Processing, 2020, 21, 533-553. A Temporal Sampling Basis for Visual Processing in Developmental Dyslexia. Frontiers in Human Neuroscience, 2020, 14, 213.	0.7	24
870 871	Cognitive Processing, 2020, 21, 533-553. A Temporal Sampling Basis for Visual Processing in Developmental Dyslexia. Frontiers in Human Neuroscience, 2020, 14, 213. Prior Expectations of Motion Direction Modulate Early Sensory Processing. Journal of Neuroscience, 2020, 40, 6389-6397.	0.7 1.0 1.7	11 24 48
870 871 872	Cognitive Processing, 2020, 21, 533-553. A Temporal Sampling Basis for Visual Processing in Developmental Dyslexia. Frontiers in Human Neuroscience, 2020, 14, 213. Prior Expectations of Motion Direction Modulate Early Sensory Processing. Journal of Neuroscience, 2020, 40, 6389-6397. Combining predictive coding and neural oscillations enables online syllable recognition in natural speech. Nature Communications, 2020, 11, 3117.	0.7 1.0 1.7 5.8	11 24 48 47
870 871 872 873	Cognitive Processing, 2020, 21, 533-553. A Temporal Sampling Basis for Visual Processing in Developmental Dyslexia. Frontiers in Human Neuroscience, 2020, 14, 213. Prior Expectations of Motion Direction Modulate Early Sensory Processing. Journal of Neuroscience, 2020, 40, 6389-6397. Combining predictive coding and neural oscillations enables online syllable recognition in natural speech. Nature Communications, 2020, 11, 3117. A Revised Computational Neuroanatomy for Motor Control. Journal of Cognitive Neuroscience, 2020, 32, 1823-1836.	0.7 1.0 1.7 5.8 1.1	11 24 48 47 26
870 871 872 873 874	Cognitive Processing, 2020, 21, 533-553. A Temporal Sampling Basis for Visual Processing in Developmental Dyslexia. Frontiers in Human Neuroscience, 2020, 14, 213. Prior Expectations of Motion Direction Modulate Early Sensory Processing. Journal of Neuroscience, 2020, 40, 6389-6397. Combining predictive coding and neural oscillations enables online syllable recognition in natural speech. Nature Communications, 2020, 11, 3117. A Revised Computational Neuroanatomy for Motor Control. Journal of Cognitive Neuroscience, 2020, 32, 1823-1836. The evolution and development of the uniquely human capacity for emotional awareness: A synthesis of comparative anatomical, cognitive, neurocomputational, and evolutionary psychological perspectives. Biological Psychology, 2020, 154, 107925.	0.7 1.0 1.7 5.8 1.1 1.1	11 24 48 47 26 15

#	Article	IF	Citations
876	Intracranial-EEG evidence for medial temporal pole driving amygdala activity induced by multi-modal emotional stimuli. Cortex, 2020, 130, 32-48.	1.1	12
877	A virtual reality system to analyze neural activity and behavior in adult zebrafish. Nature Methods, 2020, 17, 343-351.	9.0	53
878	Alien limb syndrome: A Bayesian account of unwanted actions. Cortex, 2020, 127, 29-41.	1.1	14
879	Beyond the feedforward sweep: feedback computations in the visual cortex. Annals of the New York Academy of Sciences, 2020, 1464, 222-241.	1.8	44
880	Reducedâ€gate convolutional long shortâ€ŧerm memory using predictive coding for spatiotemporal prediction. Computational Intelligence, 2020, 36, 910-939.	2.1	6
881	The building blocks of a brain-inspired computer. Applied Physics Reviews, 2020, 7, .	5.5	117
882	Granger causality analysis of rat cortical functional connectivity in pain. Journal of Neural Engineering, 2020, 17, 016050.	1.8	13
883	Crossâ€modal modulation of cell activity by sound in firstâ€order visual thalamic nucleus. Journal of Comparative Neurology, 2020, 528, 1917-1941.	0.9	3
884	Touch anticipation mediates cross-modal Hebbian plasticity in the primary somatosensory cortex. Cortex, 2020, 126, 173-181.	1.1	6
885	Glutamate and Dysconnection in the Salience Network: Neurochemical, Effective Connectivity, and Computational Evidence in Schizophrenia. Biological Psychiatry, 2020, 88, 273-281.	0.7	58
886	Bayesian fusion and multimodal DCM for EEG and fMRI. NeuroImage, 2020, 211, 116595.	2.1	30
887	From allostatic agents to counterfactual cognisers: active inference, biological regulation, and the origins of cognition. Biology and Philosophy, 2020, 35, 1.	0.7	70
888	A neural network trained for prediction mimics diverse features of biological neurons and perception. Nature Machine Intelligence, 2020, 2, 210-219.	8.3	62
889	All Thinking is â€~Wishful' Thinking. Trends in Cognitive Sciences, 2020, 24, 413-424.	4.0	33
890	Somatodendritic consistency check for temporal feature segmentation. Nature Communications, 2020, 11, 1554.	5.8	13
891	A Group Analysis of Oscillatory Phase and Phase Synchronization in Cortical Networks. IEEE Access, 2020, 8, 59182-59199.	2.6	2
892	An Investigation of the Free Energy Principle for Emotion Recognition. Frontiers in Computational Neuroscience, 2020, 14, 30.	1.2	30
893	Feature-specific neural reactivation during episodic memory. Nature Communications, 2020, 11, 1945.	5.8	29

#	Article	IF	CITATIONS
894	Modeling the impact of neurovascular coupling impairments on BOLD-based functional connectivity at rest. NeuroImage, 2020, 218, 116871.	2.1	15
895	Humans adapt their anticipatory eye movements to the volatility of visual motion properties. PLoS Computational Biology, 2020, 16, e1007438.	1.5	10
896	Exploitation of local and global information in predictive processing. PLoS ONE, 2020, 15, e0231021.	1.1	1
897	Biophysical mechanisms governing largeâ€scale brain network dynamics underlying individualâ€specific variability of perception. European Journal of Neuroscience, 2020, 52, 3746-3762.	1.2	10
898	Rethinking post-traumatic stress disorder – A predictive processing perspective. Neuroscience and Biobehavioral Reviews, 2020, 113, 448-460.	2.9	42
899	Backpropagation and the brain. Nature Reviews Neuroscience, 2020, 21, 335-346.	4.9	385
900	Dopamine, Prediction Error and Beyond. Neuroscientist, 2021, 27, 30-46.	2.6	38
901	Emergence of prediction error along the human auditory hierarchy. Hearing Research, 2021, 399, 107954.	0.9	9
902	The integration of social and neural synchrony: a case for ecologically valid research using MEG neuroimaging. Social Cognitive and Affective Neuroscience, 2021, 16, 143-152.	1.5	26
903	Long-range connections enrich cortical computations. Neuroscience Research, 2021, 162, 1-12.	1.0	0
904	Spontaneous Beta Band Rhythms in the Predictive Coding of Natural Stimuli. Neuroscientist, 2021, 27, 184-201.	2.6	38
905	Active listening. Hearing Research, 2021, 399, 107998.	0.9	37
906	Deviance detection in physiologically identified cell types in the rat auditory cortex. Hearing Research, 2021, 399, 107997.	0.9	13
907	Cortical mapping of mismatch responses to independent acoustic features. Hearing Research, 2021, 399, 107894.	0.9	13
908	First principles in the life sciences: the free-energy principle, organicism, and mechanism. SynthÃ^se, 2021, 198, 3463-3488.	0.6	56
909	Prediction Error Minimization as a Framework for Social Cognition Research. Erkenntnis, 2021, 86, 1-20.	0.6	7
910	State anxiety biases estimates of uncertainty and impairs reward learning in volatile environments. NeuroImage, 2021, 224, 117424.	2.1	41
911	Reduced effective connectivity between right parietal and inferior frontal cortex during audiospatial perception in neglect patients with a right-hemisphere lesion. Hearing Research, 2021, 399, 108052.	0.9	5

#	Article	IF	CITATIONS
912	Inhibitory plasticity in layer 1 – dynamic gatekeeper of neocortical associations. Current Opinion in Neurobiology, 2021, 67, 26-33.	2.0	11
913	Predictive coding as a model of sensory disconnection: relevance to anaesthetic mechanisms. British Journal of Anaesthesia, 2021, 126, 37-40.	1.5	12
914	Perceptual learning of tone patterns changes the effective connectivity between Heschl's gyrus and planum temporale. Human Brain Mapping, 2021, 42, 941-952.	1.9	18
915	The thalamus integrates the macrosystems of the brain to facilitate complex, adaptive brain network dynamics. Progress in Neurobiology, 2021, 199, 101951.	2.8	93
916	Is predictive processing a theory of perceptual consciousness?. New Ideas in Psychology, 2021, 61, 100837.	1.2	12
917	Expected TMS excites the motor system less effectively than unexpected stimulation. NeuroImage, 2021, 226, 117541.	2.1	14
918	Attention neglects a stare-in-the-crowd: Unanticipated consequences of prediction-error coding. Cognition, 2021, 207, 104519.	1.1	0
919	Dynamic causal modeling of eye gaze processing in schizophrenia. Schizophrenia Research, 2021, 229, 112-121.	1.1	18
920	Neural Mechanisms. Studies in Brain and Mind, 2021, , .	0.5	35
921	Representation Wars: Enacting an Armistice Through Active Inference. Frontiers in Psychology, 2020, 11, 598733.	1.1	27
922	Why do imagery and perception look and feel so different?. Philosophical Transactions of the Royal Society B: Biological Sciences, 2021, 376, 20190703.	1.8	28
923	Parcels and particles: Markov blankets in the brain. Network Neuroscience, 2021, 5, 211-251.	1.4	48
924	Enhanced representation of natural sound sequences in the ventral auditory midbrain. Brain Structure and Function, 2021, 226, 207-223.	1.2	1
925	Resting-State Magnetoencephalography Reveals Neurobiological Bridges Between Pain and Cognitive Impairment. Pain and Therapy, 2021, 10, 349-361.	1.5	9
926	Correlated Brain Indexes of Semantic Prediction and Prediction Error: Brain Localization and Category Specificity. Cerebral Cortex, 2021, 31, 1553-1568.	1.6	30
927	Cortical hierarchy, dual counterstream architecture and the importance of top-down generative networks. NeuroImage, 2021, 225, 117479.	2.1	54
928	When Beliefs Face Reality: An Integrative Review of Belief Updating in Mental Health and Illness. Perspectives on Psychological Science, 2021, 16, 247-274.	5.2	52
929	An MRI-Based, Data-Driven Model of Cortical Laminar Connectivity. Neuroinformatics, 2021, 19, 205-218.	1.5	12

	Сітаті	CITATION REPORT	
#	Article	IF	CITATIONS
930	Cognition coming about: Self-organisation and free-energy. Physics of Life Reviews, 2021, 36, 44-46.	1.5	3
931	Recent advances in the application of predictive coding and active inference models within clinical neuroscience. Psychiatry and Clinical Neurosciences, 2021, 75, 3-13.	1.0	76
932	In Vivo Assay of Cortical Microcircuitry in Frontotemporal Dementia: A Platform for Experimental Medicine Studies. Cerebral Cortex, 2021, 31, 1837-1847.	1.6	19
933	Stream-specific feedback inputs to the primate primary visual cortex. Nature Communications, 2021, 12, 228.	5.8	16
934	Active probing to highlight approaching transitions to ictal states in coupled neural mass models. PLoS Computational Biology, 2021, 17, e1008377.	1.5	4
935	Small-World Propensity in Developmental Dyslexia After Visual Training Intervention. Lecture Notes in Networks and Systems, 2021, , 233-258.	0.5	3
936	Art and the Geometry of Visual Space. Lecture Notes in Morphogenesis, 2021, , 129-149.	0.2	1
937	Integrating Cybernetic Big Five Theory with the free energy principle: A new strategy for modeling personalities as complex systems. , 2021, , 617-649.		8
938	Gender differentiates effects of acoustic stimulation in patients with tinnitus. Progress in Brain Research, 2021, 263, 25-57.	0.9	7
939	Detailed Episodic Memory Depends on Concurrent Reactivation of Basic Visual Features within the Posterior Hippocampus and Early Visual Cortex. Cerebral Cortex Communications, 2021, 2, tgab045.	0.7	16
940	Subjective visibility report is facilitated by conscious predictions only. Consciousness and Cognition, 2021, 87, 103048.	0.8	4
941	Predictive coding models for pain perception. Journal of Computational Neuroscience, 2021, 49, 107-127.	0.6	16
942	Reward-related choices determine information timing and flow across macaque lateral prefrontal cortex. Nature Communications, 2021, 12, 894.	5.8	13
943	Neural surprise in somatosensory Bayesian learning. PLoS Computational Biology, 2021, 17, e1008068.	1.5	27
944	Prediction in Autism Spectrum Disorder: A Systematic Review of Empirical Evidence. Autism Research, 2021, 14, 604-630.	2.1	64
946	Understanding occipital and parietal contributions to visual working memory: Commentary on Xu (2020). Visual Cognition, 2021, 29, 401-408.	0.9	10
950	Structural and functional underpinnings of precentral abnormalities in amyotrophic lateral sclerosis. European Journal of Neurology, 2021, 28, 1528-1536.	1.7	4
952	Seven computations of the social brain. Social Cognitive and Affective Neuroscience, 2021, 16, 745-760.	1.5	21

#	Article	IF	CITATIONS
953	Laminar-specific cortico-cortical loops in mouse visual cortex. ELife, 2021, 10, .	2.8	36
957	The temporal and spectral characteristics of expectations and prediction errors in pain and thermoception. ELife, 2021, 10, .	2.8	26
959	Whence the Expected Free Energy?. Neural Computation, 2021, 33, 447-482.	1.3	30
961	Cyber Kittens, or Some First Steps Towards Categorical Cybernetics. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 333, 108-124.	0.8	2
964	Are Generative Models Structural Representations?. Minds and Machines, 2021, 31, 277-303.	2.7	1
965	Ultra-high field fMRI reveals origins of feedforward and feedback activity within laminae of human ocular dominance columns. Neurolmage, 2021, 228, 117683.	2.1	25
966	Interoception, Trait Anxiety, and the Gut Microbiome: A Cognitive and Physiological Model. Medical Science Monitor, 2021, 27, e931962.	0.5	8
967	Are basic actors brainbound agents? Narrowing down solutions to the problem of probabilistic content for predictive perceivers. Phenomenology and the Cognitive Sciences, 0, , 1.	1.1	1
969	Unraveling the Temporal Dynamics of Reward Signals in Music-Induced Pleasure with TMS. Journal of Neuroscience, 2021, 41, 3889-3899.	1.7	18
970	Directed information exchange between cortical layers in macaque V1 and V4 and its modulation by selective attention. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	51
971	Adjudicating Between Local and Global Architectures of Predictive Processing in the Subcortical Auditory Pathway. Frontiers in Neural Circuits, 2021, 15, 644743.	1.4	10
972	Introducing a differentiable measure of pointwise shared information. Physical Review E, 2021, 103, 032149.	0.8	20
973	GABAergic cortical network physiology in frontotemporal lobar degeneration. Brain, 2021, 144, 2135-2145.	3.7	24
974	Predictive olfactory learning in Drosophila. Scientific Reports, 2021, 11, 6795.	1.6	19
976	Neural modelling of the encoding of fast frequency modulation. PLoS Computational Biology, 2021, 17, e1008787.	1.5	3
977	Limited Evidence for Sensory Prediction Error Responses in Visual Cortex of Macaques and Humans. Cerebral Cortex, 2021, 31, 3136-3152.	1.6	17
979	Determining laminar neuronal activity from BOLD fMRI using a generative model. Progress in Neurobiology, 2021, 207, 102055.	2.8	10
980	Acute aerobic exercise enhances cortical connectivity between structures involved in shaping mood and improves self-reported mood: An EEG effective-connectivity study in young male adults. International Journal of Psychophysiology, 2021, 162, 22-33.	0.5	12

#	Article	IF	CITATIONS
981	Updating beliefs beyond the here-and-now: the counter-factual self in anosognosia for hemiplegia. Brain Communications, 2021, 3, fcab098.	1.5	11
982	Reinforcement-guided learning in frontal neocortex: emerging computational concepts. Current Opinion in Behavioral Sciences, 2021, 38, 133-140.	2.0	5
984	A Canonical Laminar Neocortical Circuit Whose Bottom-Up, Horizontal, and Top-Down Pathways Control Attention, Learning, and Prediction. Frontiers in Systems Neuroscience, 2021, 15, 650263.	1.2	4
986	Cortical ensembles selective for context. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	29
987	Neural Dynamics under Active Inference: Plausibility and Efficiency of Information Processing. Entropy, 2021, 23, 454.	1.1	22
989	Neural correlates of nonjudgmental perception induced through meditation. Annals of the New York Academy of Sciences, 2021, 1499, 70-81.	1.8	2
990	Modelling ourselves: what the free energy principle reveals about our implicit notions of representation. SynthÃ^se, 2021, 199, 7801-7833.	0.6	11
991	Predictive Coding Over the Lifespan: Increased Reliance on Perceptual Priors in Older Adults—A Magnetoencephalography and Dynamic Causal Modeling Study. Frontiers in Aging Neuroscience, 2021, 13, 631599.	1.7	15
992	Visual Predictions Operate on Different Timescales. Journal of Cognitive Neuroscience, 2021, 33, 984-1002.	1.1	0
993	How hot is the hot zone? Computational modelling clarifies the role of parietal and frontoparietal connectivity during anaesthetic-induced loss of consciousness. NeuroImage, 2021, 231, 117841.	2.1	16
994	Human Somatosensory Cortex Is Modulated during Motor Planning. Journal of Neuroscience, 2021, 41, 5909-5922.	1.7	34
995	Computational models link cellular mechanisms of neuromodulation to large-scale neural dynamics. Nature Neuroscience, 2021, 24, 765-776.	7.1	109
996	Neurochemistry of Visual Attention. Frontiers in Neuroscience, 2021, 15, 643597.	1.4	16
998	Deep Predictive Learning in Neocortex and Pulvinar. Journal of Cognitive Neuroscience, 2021, 33, 1158-1196.	1.1	19
999	Hierarchical Learning of Statistical Regularities over Multiple Timescales of Sound Sequence Processing: A Dynamic Causal Modeling Study. Journal of Cognitive Neuroscience, 2021, 33, 1-14.	1.1	5
1000	Message Passing and Metabolism. Entropy, 2021, 23, 606.	1.1	3
1001	Multiscale modeling of cortical gradients: The role of mesoscale circuits for linking macro- and microscale gradients of cortical organization and hierarchical information processing. NeuroImage, 2021, 232, 117846.	2.1	17
1003	Editorial: Probabilistic Perspectives on Brain (Dys)function. Frontiers in Artificial Intelligence, 2021, 4, 710179.	2.0	1

	CIANON	REFORT	
#	Article	IF	Citations
1004	Markov blankets in the brain. Neuroscience and Biobehavioral Reviews, 2021, 125, 88-97.	2.9	29
1005	The visual cortex produces gamma band echo in response to broadband visual flicker. PLoS Computational Biology, 2021, 17, e1009046.	1.5	7
1006	Cortical signatures of precision grip force control in children, adolescents, and adults. ELife, 2021, 10, .	2.8	6
1007	The Radically Embodied Conscious Cybernetic Bayesian Brain: From Free Energy to Free Will and Back Again. Entropy, 2021, 23, 783.	1.1	19
1010	Validating model-based Bayesian integration using prior–cost metamers. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	12
1012	A predictive processing framework of tool use. Cortex, 2021, 139, 211-221.	1.1	5
1014	Expectancy-based rhythmic entrainment as continuous Bayesian inference. PLoS Computational Biology, 2021, 17, e1009025.	1.5	21
1017	Partial information decomposition reveals that synergistic neural integration is greater downstream of recurrent information flow in organotypic cortical cultures. PLoS Computational Biology, 2021, 17, e1009196.	1.5	13
1018	Frequency Selectivity of Persistent Cortical Oscillatory Responses to Auditory Rhythmic Stimulation. Journal of Neuroscience, 2021, 41, 7991-8006.	1.7	17
1020	Feedforward and feedback pathways of nociceptive and tactile processing in human somatosensory system: A study of dynamic causal modeling of fMRI data. NeuroImage, 2021, 234, 117957.	2.1	19
1021	The unbalanced reorganization of weaker functional connections induces the altered brain network topology in schizophrenia. Scientific Reports, 2021, 11, 15400.	1.6	8
1022	Depression as a Failed Anxiety: The Continuum of Precision-Weighting Dysregulation in Affective Disorders. Frontiers in Psychology, 2021, 12, 657738.	1.1	6
1023	Neocortical Layer 1: An Elegant Solution to Top-Down and Bottom-Up Integration. Annual Review of Neuroscience, 2021, 44, 221-252.	5.0	57
1024	Modulation of the Primary Auditory Thalamus When Recognizing Speech with Background Noise. Journal of Neuroscience, 2021, 41, 7136-7147.	1.7	6
1025	Violation of rhythmic expectancies can elicit late frontal gamma activity nested in theta oscillations. Psychophysiology, 2021, 58, e13909.	1.2	4
1027	The extrafoveal preview paradigm as a measure of predictive, active sampling in visual perception. Journal of Vision, 2021, 21, 12.	0.1	8
1028	The Menstrual Cycle Alters Resting-State Cortical Activity: A Magnetoencephalography Study. Frontiers in Human Neuroscience, 2021, 15, 652789.	1.0	14
1029	Evaluating the evidence for expectation suppression in the visual system. Neuroscience and Biobehavioral Reviews, 2021, 126, 368-381.	2.9	29

#	Article	IF	CITATIONS
1030	Deep Gated Hebbian Predictive Coding Accounts for Emergence of Complex Neural Response Properties Along the Visual Cortical Hierarchy. Frontiers in Computational Neuroscience, 2021, 15, 666131.	1.2	9
1031	Predictive processing, cognitive control, and tonality stability of music: An fMRI study of chromatic harmony. Brain and Cognition, 2021, 151, 105751.	0.8	5
1032	Gamma oscillations modulate working memory recall precision. Experimental Brain Research, 2021, 239, 2711-2724.	0.7	18
1034	The Role of the Medial Prefrontal Cortex in Moderating Neural Representations of Self and Other in Primates. Annual Review of Neuroscience, 2021, 44, 295-313.	5.0	15
1035	Automatic Sensory Predictions: A Review of Predictive Mechanisms in the Brain and Their Link to Conscious Processing. Frontiers in Human Neuroscience, 2021, 15, 702520.	1.0	14
1036	Five Breakthroughs: A First Approximation of Brain Evolution From Early Bilaterians to Humans. Frontiers in Neuroanatomy, 2021, 15, 693346.	0.9	5
1037	Corticothalamic Pathways in Auditory Processing: Recent Advances and Insights From Other Sensory Systems. Frontiers in Neural Circuits, 2021, 15, 721186.	1.4	27
1038	An active inference perspective on the negative symptoms of schizophrenia. Lancet Psychiatry,the, 2021, 8, 732-738.	3.7	21
1039	Nature Chose Abduction: Support from Brain Research for Lipton's Theory of Inference to the Best Explanation. Foundations of Science, 0, , 1.	0.4	5
1040	Multi-scale neural decoding and analysis. Journal of Neural Engineering, 2021, 18, 045013.	1.8	16
1041	Mental compression of spatial sequences in human working memory using numerical and geometrical primitives. Neuron, 2021, 109, 2627-2639.e4.	3.8	25
1042	What Might Interoceptive Inference Reveal about Consciousness?. Review of Philosophy and Psychology, 2022, 13, 879-906.	1.0	12
1043	Neurofunctional Symmetries and Asymmetries during Voluntary out-of- and within-Body Vivid Imagery Concurrent with Orienting Attention and Visuospatial Detection. Symmetry, 2021, 13, 1549.	1.1	4
1044	Disentangling predictive processing in the brain: a meta-analytic study in favour of a predictive network. Scientific Reports, 2021, 11, 16258.	1.6	23
1045	Bilingualism: A Neurocognitive Exercise in Managing Uncertainty. Neurobiology of Language (Cambridge, Mass), 2021, 2, 464-486.	1.7	12
1046	An oscillating computational model can track pseudo-rhythmic speech by using linguistic predictions. ELife, 2021, 10, .	2.8	20
1048	A direct interareal feedback-to-feedforward circuit in primate visual cortex. Nature Communications, 2021, 12, 4911.	5.8	19
1049	Musicianship and melodic predictability enhance neural gain in auditory cortex during pitch deviance detection. Human Brain Mapping, 2021, 42, 5595-5608.	1.9	11

#	Article	IF	CITATIONS
1050	Towards a computational phenomenology of mental action: modelling meta-awareness and attentional control with deep parametric active inference. Neuroscience of Consciousness, 2021, 2021, niab018.	1.4	35
1051	Computational models of the "active self―and its disturbances in schizophrenia. Consciousness and Cognition, 2021, 93, 103155.	0.8	5
1052	Neurophysiological basis of the N400 deflection, from Mismatch Negativity to Semantic Prediction Potentials and late positive components. International Journal of Psychophysiology, 2021, 166, 134-150.	0.5	10
1053	Active Inference as a Computational Framework for Consciousness. Review of Philosophy and Psychology, 2022, 13, 859-878.	1.0	7
1054	Recurrent dynamics in the cerebral cortex: Integration of sensory evidence with stored knowledge. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	44
1055	Model-based prediction of muscarinic receptor function from auditory mismatch negativity responses. Neurolmage, 2021, 237, 118096.	2.1	13
1056	Impoverished Inhibitory Control Exacerbates Multisensory Impairments in Older Fallers. Frontiers in Aging Neuroscience, 2021, 13, 700787.	1.7	6
1057	Neural network learning of improved compressive sensing sampling and receptive field structure. Neurocomputing, 2021, 455, 368-378.	3.5	8
1058	Heuristics contribute to sensorimotor decision-making under risk. Psychonomic Bulletin and Review, 2021, , 1.	1.4	2
1059	A precise and adaptive neural mechanism for predictive temporal processing in the frontal cortex. Neuron, 2021, 109, 2995-3011.e5.	3.8	35
1060	Short-Term Facilitation of Long-Range Corticocortical Synapses Revealed by Selective Optical Stimulation. Cerebral Cortex, 2022, 32, 1932-1949.	1.6	8
1061	Perceived and mentally rotated contents are differentially represented in cortical depth of V1. Communications Biology, 2021, 4, 1069.	2.0	17
1062	Current findings and perspectives on aberrant neural oscillations in schizophrenia. Psychiatry and Clinical Neurosciences, 2021, 75, 358-368.	1.0	46
1063	Naturalistic stimuli: A paradigm for multiscale functional characterization of the human brain. Current Opinion in Biomedical Engineering, 2021, 19, 100298.	1.8	15
1064	Electrophysiological biomarkers of behavioral dimensions from cross-species paradigms. Translational Psychiatry, 2021, 11, 482.	2.4	20
1066	Gut inference: A computational modelling approach. Biological Psychology, 2021, 164, 108152.	1.1	24
1068	The secret life of predictive brains: what's spontaneous activity for?. Trends in Cognitive Sciences, 2021, 25, 730-743.	4.0	94
1069	Is the brain an organ for free energy minimisation?. Philosophical Studies, 2022, 179, 1693-1714.	0.5	5

#	Article	IF	CITATIONS
1070	Adiabatic dynamic causal modelling. NeuroImage, 2021, 238, 118243.	2.1	16
1071	PP vainilla para filósofos. Cuadernos Filosóficos / Segunda Época, 2021, , .	0.0	Ο
1072	Multimodal electrophysiological analyses reveal that reduced synaptic excitatory neurotransmission underlies seizures in a model of NMDAR antibody-mediated encephalitis. Communications Biology, 2021, 4, 1106.	2.0	20
1073	Deep learning and the Global Workspace Theory. Trends in Neurosciences, 2021, 44, 692-704.	4.2	29
1074	Remembering the Past to See the Future. Annual Review of Vision Science, 2021, 7, 349-365.	2.3	11
1075	New insights into the dynamic development of the cerebral cortex in childhood and adolescence: Integrating macro- and microstructural MRI findings. Progress in Neurobiology, 2021, 204, 102109.	2.8	54
1076	Linking cortical circuit models to human cognition with laminar fMRI. Neuroscience and Biobehavioral Reviews, 2021, 128, 467-478.	2.9	17
1077	A bias in saccadic suppression of shape change. Vision Research, 2021, 186, 112-123.	0.7	2
1078	Visual speech differentially modulates beta, theta, and high gamma bands in auditory cortex. European Journal of Neuroscience, 2021, 54, 7301-7317.	1.2	8
1079	The spatiotemporal organization of experience dictates hippocampal involvement in primary visual cortical plasticity. Current Biology, 2021, 31, 3996-4008.e6.	1.8	26
1080	No Evidence for Neural Overlap between Unconsciously Processed and Imagined Stimuli. ENeuro, 2021, 8, ENEURO.0228-21.2021.	0.9	10
1081	Natural and Artificial Intelligence: A brief introduction to the interplay between AI and neuroscience research. Neural Networks, 2021, 144, 603-613.	3.3	50
1082	Motive control of unconscious inference: The limbic base of adaptive Bayes. Neuroscience and Biobehavioral Reviews, 2021, 128, 328-345.	2.9	13
1083	Temporal uncertainty enhances suppression of neural responses to predictable visual stimuli. NeuroImage, 2021, 239, 118314.	2.1	4
1084	Arousal State-Dependence of Interactions Between Short- and Long-Term Auditory Novelty Responses in Human Neuroscience, 2021, 15, 737230.	1.0	5
1085	Canonical cortical circuits and the duality of Bayesian inference and optimal control. Current Opinion in Behavioral Sciences, 2021, 41, 160-166.	2.0	8
1086	Unraveling brain interactions in vision: The example of crowding. NeuroImage, 2021, 240, 118390.	2.1	3
1087	Laminar dynamics of high amplitude beta bursts in human motor cortex. NeuroImage, 2021, 242, 118479.	2.1	45

#	Article	IF	CITATIONS
1088	The posterior auditory field is the chief generator of prediction error signals in the auditory cortex. NeuroImage, 2021, 242, 118446.	2.1	18
1089	Technical note: A fast and robust integrator of delay differential equations in DCM for electrophysiological data. NeuroImage, 2021, 244, 118567.	2.1	4
1090	Revisiting the effective connectivity within the distributed cortical network for face perception. NeuroImage Reports, 2021, 1, 100045.	0.5	7
1091	Predictive processing models and affective neuroscience. Neuroscience and Biobehavioral Reviews, 2021, 131, 211-228.	2.9	11
1092	The Bayesian Brain: An Evolutionary Approach to Cognition. , 2022, , 202-221.		0
1094	Sparse deep predictive coding captures contour integration capabilities of the early visual system. PLoS Computational Biology, 2021, 17, e1008629.	1.5	16
1095	Modelling thalamocortical circuitry shows that visually induced LTP changes laminar connectivity in human visual cortex. PLoS Computational Biology, 2021, 17, e1008414.	1.5	6
1097	Top-Down Inference in the Auditory System: Potential Roles for Corticofugal Projections. Frontiers in Neural Circuits, 2020, 14, 615259.	1.4	37
1098	Shaping Brain Rhythms: Dynamic and Control-Theoretic Perspectives on Periodic Brain Stimulation for Treatment of Neurological Disorders. Springer Series in Cognitive and Neural Systems, 2019, , 193-205.	0.1	4
1099	The Brain in Space. Research and Perspectives in Neurosciences, 2016, , 45-74.	0.4	13
1100	Combating Adversarial Inputs Using a Predictive-Estimator Network. Lecture Notes in Computer Science, 2017, , 118-125.	1.0	2
1101	Prefrontal Cortical Microcircuits for Executive Control of Behavior. , 2015, , 157-179.		6
1102	Novelty Processing in the Auditory System: Detection, Adaptation or Expectation?. , 2020, , 749-776.		8
1103	Prediction and memory: A predictive coding account. Progress in Neurobiology, 2020, 192, 101821.	2.8	108
1105	Influence of prior beliefs on perception in early psychosis: Effects of illness stage and hierarchical level of belief Journal of Abnormal Psychology, 2020, 129, 581-598.	2.0	27
1106	Emotion words, emotion concepts, and emotional development in children: A constructionist hypothesis Developmental Psychology, 2019, 55, 1830-1849.	1.2	167
1107	Understanding the development of face and emotion processing under a predictive processing framework Developmental Psychology, 2019, 55, 1868-1881.	1.2	17
1108	New perspectives on speech motor planning and programming in the context of the four-level model and its implications for understanding the pathophysiology underlying apraxia of speech and other motor speech disorders. Aphasiology, 2021, 35, 397-423.	1.4	25

ARTICLE IF CITATIONS Insights into human cognition from intracranial EEG: A review of audition, memory, internal 1109 38 1.8 cognition, and causality. Journal of Neural Engineering, 2020, 17, 051001. A Role for Somatostatin-Positive Interneurons in Neuro-Oscillatory and Information Processing 2.3 Deficits in Schizophrenia. Schizophrenia Bulletin, 2021, 47, 1385-1398. Reconciling competing mechanisms posited to underlie auditory verbal hallucinations. Philosophical 1111 1.8 12 Transactions of the Royal Society B: Biological Sciences, 2021, 376, 20190702. General anesthesia reduces complexity and temporal asymmetry of the informational structures derived from neural recordings in <i>Drosophila /i>. Physical Review Research, 2020, 2, . Decoding Brain Representations by Multimodal Learning of Neural Activity and Visual Features. IEEE 1188 9.7 43 Transactions on Pattern Analysis and Machine Intelligence, 2021, 43, 3833-3849. Priors and Prejudices: Comments on Susanna Siegel's The Rationality of Perception. Res Philosophica, 1189 0.2 <u>2018, 95, 741-750.</u> Principles of Network Architecture Emerging from Comparisons of the Cerebral Cortex in Large and 1190 2.6 11 Small Brains. PLoS Biology, 2016, 14, e1002556. Prediction error signaling explains neuronal mismatch responses in the medial prefrontal cortex. 2.6 49 PLoS Biology, 2020, 18, e3001019. Prior expectations evoke stimulus-specific activity in the deep layers of the primary visual cortex. PLoS 1192 2.6 43 Biology, 2020, 18, e3001023. Stochastic Dynamics Underlying Cognitive Stability and Flexibility. PLoS Computational Biology, 2015, 1.5 11, e1004331. Modelling Odor Decoding in the Antennal Lobe by Combining Sequential Firing Rate Models with 1194 1.5 5 Bayesian Inference. PLoS Computational Biology, 2015, 11, e1004528. A Bayesian computational model reveals a failure to adapt interoceptive precision estimates across depression, anxiety, eating, and substance use disorders. PLoS Computational Biology, 2020, 16, 1.5 e1008484. Distributional Vowel Training Is Less Effective for Adults than for Infants. A Study Using the 1196 1.1 20 Mismatch Response. PLoS ONE, 2014, 9, e109806. Dissociated Roles of the Inferior Frontal Gyrus and Superior Temporal Sulcus in Audiovisual 1.1 Processing: Top-Down and Bottom-Up Mismatch Detection. PLoS ONE, 2015, 10, e0122580. A model of individualized canonical microcircuits supporting cognitive operations. PLoS ONE, 2017, 12, 1198 1.1 9 e0188003. Beyond the Status Quo: A Role for Beta Oscillations in Endogenous Content (Re)Activation. ENeuro, 1199 363 2017, 4, ENEURO.0170-17.2017. Hetereogeneity in Neuronal Intrinsic Properties: A Possible Mechanism for Hub-Like Properties of the 1200 0.9 17 Rat Anterior Cingulate Cortex during Network Activity. ENeuro, 2017, 4, ENEURO.0313-16.2017. Isoflurane Impairs Low-Frequency Feedback but Leaves High-Frequency Feedforward Connectivity Intact in the Fly Brain. ENeuro, 2018, 5, ENEURO.0329-17.2018.

#	Article	IF	CITATIONS
1202	Predictive Coding with Neural Transmission Delays: A Real-Time Temporal Alignment Hypothesis. ENeuro, 2019, 6, ENEURO.0412-18.2019.	0.9	40
1203	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.	0.9	21
1206	Age- and gender-specific characteristics of the resting-state brain activity: a magnetoencephalography study. Aging, 2020, 12, 21613-21637.	1.4	25
1208	Predictive processing as a systematic basis for identifying the neural correlates of consciousness. Philosophy and the Mind Sciences, 2020, 1, .	1.3	36
1209	Deep Active Inference and Scene Construction. Frontiers in Artificial Intelligence, 2020, 3, 509354.	2.0	12
1210	Gamma Oscillations and Neural Field DCMs Can Reveal Cortical Excitability and Microstructure. AIMS Neuroscience, 2014, 1, 18-38.	1.0	9
1211	Neural signatures of perceptual inference. ELife, 2016, 5, e11476.	2.8	138
1212	Neural oscillations as a signature of efficient coding in the presence of synaptic delays. ELife, 2016, 5, .	2.8	40
1213	Tell me something I don't know. ELife, 2016, 5, e15853.	2.8	3
1214	Human intracranial recordings link suppressed transients rather than 'filling-in' to perceptual continuity across blinks. ELife, 2016, 5, .	2.8	40
1215	Unexpected arousal modulates the influence of sensory noise on confidence. ELife, 2016, 5, .	2.8	138
1216	Differential temporal dynamics during visual imagery and perception. ELife, 2018, 7, .	2.8	85
1217	Lamina-specific cortical dynamics in human visual and sensorimotor cortices. ELife, 2018, 7, .	2.8	45
1218	Content-specific activity in frontoparietal and default-mode networks during prior-guided visual perception. ELife, 2018, 7, .	2.8	41
1219	Surface color and predictability determine contextual modulation of V1 firing and gamma oscillations. ELife, 2019, 8, .	2.8	70
1220	Anterior insular cortex plays a critical role in interoceptive attention. ELife, 2019, 8, .	2.8	99
1221	Neural dynamics of perceptual inference and its reversal during imagery. ELife, 2020, 9, .	2.8	54
1222	Apical length governs computational diversity of layer 5 pyramidal neurons. ELife, 2020, 9, .	2.8	24

#	Article	IF	CITATIONS
1223	Fine-scale computations for adaptive processing in the human brain. ELife, 2020, 9, .	2.8	9
1224	Rapid computations of spectrotemporal prediction error support perception of degraded speech. ELife, 2020, 9, .	2.8	41
1225	Amplitude modulations of cortical sensory responses in pulsatile evidence accumulation. ELife, 2020, 9, .	2.8	18
1226	Atypically high influence of subcortical activity on primary sensory regions in autism. NeuroImage: Clinical, 2021, 32, 102839.	1.4	9
1227	Functional segregation within the dorsal frontoparietal network: a multimodal dynamic causal modeling study. Cerebral Cortex, 2022, 32, 3187-3205.	1.6	3
1228	Free association in psychoanalysis and its links to neuroscience contributions. Neuropsychoanalysis, 0, , 1-27.	0.1	1
1229	Broadband Dynamics Rather than Frequency-Specific Rhythms Underlie Prediction Error in the Primate Auditory Cortex. Journal of Neuroscience, 2021, 41, 9374-9391.	1.7	12
1230	Intention-based and sensory-based predictions. Scientific Reports, 2021, 11, 19899.	1.6	7
1231	The Benefits of Music Listening for Induced State Anxiety: Behavioral and Physiological Evidence. Brain Sciences, 2021, 11, 1332.	1.1	3
1233	Conductance-based dynamic causal modeling: A mathematical review of its application to cross-power spectral densities. NeuroImage, 2021, 245, 118662.	2.1	10
1234	The generation of cortical novelty responses through inhibitory plasticity. ELife, 2021, 10, .	2.8	27
1235	State-Dependent Effective Connectivity in Resting-State fMRI. Frontiers in Neural Circuits, 2021, 15, 719364.	1.4	4
1237	Two classes of functional connectivity in dynamical processes in networks. Journal of the Royal Society Interface, 2021, 18, 20210486.	1.5	7
1238	Dynamic large-scale connectivity of intrinsic cortical oscillations supports adaptive listening in challenging conditions. PLoS Biology, 2021, 19, e3001410.	2.6	5
1240	Bayesian theories of consciousness: a review in search for a minimal unifying model. Neuroscience of Consciousness, 2021, 2021, niab038.	1.4	2
1241	Learning differentially shapes prefrontal and hippocampal activity during classical conditioning. ELife, 2021, 10, .	2.8	13
1242	A mechanism for inter-areal coherence through communication based on connectivity and oscillatory power. Neuron, 2021, 109, 4050-4067.e12.	3.8	80
1243	Characterization of the synaptic mechanisms underlying seizure onset with Dynamic Causal Modelling. Frontiers in Human Neuroscience, 0, 8, .	1.0	0

#	Article	IF	CITATIONS
1247	Perception, Abduction, and Tacit Inference. Studies in Applied Philosophy, Epistemology and Rational Ethics, 2016, , 399-418.	0.2	3
1249	Temporal Prediction Errors Affect Short-Term Memory Scanning Response Time. Experimental Psychology, 2016, 63, 333-342.	0.3	2
1250	Ich bin – also denke ich. , 2016, , 63-96.		0
1252	Causal Biomimesis: Self-replication as Evolutionary Consequence. Lecture Notes in Computer Science, 2017, , 328-347.	1.0	0
1253	Causal Modeling: Methods and Their Application to Speech and Language. Innovations in Cognitive Neuroscience, 2017, , 155-174.	0.3	0
1254	Dynamic Causal Modelling of Dynamic Dysfunction in NMDA-Receptor Antibody Encephalitis. Springer Series in Bio-/neuroinformatics, 2017, , 121-148.	0.1	1
1267	Large-Scale Cortical Networks for Hierarchical Prediction and Prediction Error in the Primate Brain. SSRN Electronic Journal, 0, , .	0.4	2
1268	Context as Inter-domain Effects: The Hand-Action-Network Dynamic Language Embodiment Model. SpringerBriefs in Psychology, 2018, , 29-54.	0.1	2
1269	Repetitive Stimulation Enhances V1 Encoding Efficiency. SSRN Electronic Journal, 0, , .	0.4	0
1283	Introduction of the Free-Energy Principle: Perception, Action, and Inference of Another's Mind. The Brain & Neural Networks, 2018, 25, 71-85.	0.1	0
1317	Mesoscale Microcircuits Within and Across Primate Somatosensory Areas Identified With Functional MRI. , 2020, , 279-287.		0
1318	Psychotische Erkrankungen ("Schizophrenie"). , 2020, , 275-296.		0
1319	Cochlear Implants: Neuroprosthetic Hearing and the Brain. , 2020, , 923-944.		0
1320	Integrated World Modeling Theory (IWMT) Implemented: Towards Reverse Engineering Consciousness with the Free Energy Principle and Active Inference. Communications in Computer and Information Science, 2020, , 135-155.	0.4	0
1330	Resolving the Connectome, Spectrally-Specific Functional Connectivity Networks and Their Distinct Contributions to Behavior. ENeuro, 2020, 7, ENEURO.0101-20.2020.	0.9	6
1332	Converging intracortical signatures of two separated processing timescales in human early auditory cortex. NeuroImage, 2020, 218, 116882.	2.1	4
1333	Mismatch of Visual-Vestibular Information in Virtual Reality: Is Motion Sickness Part of the Brains Attempt to Reduce the Prediction Error?. Frontiers in Human Neuroscience, 2021, 15, 757735.	1.0	17
1334	Precision control for a flexible body representation. Neuroscience and Biobehavioral Reviews, 2022, 134, 104401.	2.9	38

	CITATION R	CITATION REPORT	
#	Article	IF	CITATIONS
1336	Evolving Concepts of "Hierarchy―in Systems Neuroscience. Studies in Brain and Mind, 2021, , 113-141.	0.5	3
1340	Subjective Experience and Its Neural Basis. , 2021, , 253-284.		0
1344	Network Properties of Visual Cortex. , 2020, , 413-422.		0
1345	When Artificial Intelligence and Computational Neuroscience Meet. , 2020, , 303-335.		2
1349	Exploring Oscillations in Expert Sensorimotor Anticipation: The Tennis Return of Serve. , 2020, , 3-44.		0
1350	A Theory of Aggregate Rationality. SSRN Electronic Journal, 0, , .	0.4	0
1359	Combining Neurophysiological and Psychological Indicators to Understand Individual and Team Cognition and Decision-Making. New Horizons in Managerial and Organizational Cognition, 2021, , 31-56.	0.1	0
1360	The neural architecture of language: Integrative modeling converges on predictive processing. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	175
1361	Predictive Feedback, Early Sensory Representations, and Fast Responses to Predicted Stimuli Depend on NMDA Receptors. Journal of Neuroscience, 2021, 41, 10130-10147.	1.7	9
1364	A Model for the Study of the Increase in Stimulus and Change Point Detection with Small and Variable Spiking Delays. Neural Computation, 2020, 32, 1277-1321.	1.3	0
1376	Predictive waves in the autism-schizophrenia continuum: A novel biobehavioral model. Neuroscience and Biobehavioral Reviews, 2022, 132, 1-22.	2.9	24
1377	Sequential and efficient neural-population coding of complex task information. Neuron, 2022, 110, 328-349.e11.	3.8	37
1378	Neurocomputational Underpinnings of Expected Surprise. Journal of Neuroscience, 2022, 42, 474-486.	1.7	15
1379	Building and Understanding the Minimal Self. Frontiers in Psychology, 2021, 12, 716982.	1.1	1
1380	Resonating Minds—Emergent Collaboration Through Hierarchical Active Inference. Cognitive Computation, 2022, 14, 581-601.	3.6	4
1381	Anatomical and functional connectomes underlying hierarchical visual processing in mouse visual system. Brain Structure and Function, 2022, 227, 1297-1315.	1.2	7
1382	The Adaptation Model Offers a Challenge for the Predictive Coding Account of Mismatch Negativity. Frontiers in Human Neuroscience, 2021, 15, 721574.	1.0	19
1383	Predictive Coding, Variational Autoencoders, and Biological Connections. Neural Computation, 2022, 34, 1-44.	1.3	17

#	Article	IF	CITATIONS
1384	Time-Frequency Analysis of Electroencephalography Response to Standard Stimulus During an Oddball Paradigm in Patients With Schizophrenia: A Preliminary Study. Journal of Korean Neuropsychiatric Association, 2021, 60, 379.	0.2	0
1385	Adaptive Manual Control: a Predictive Coding Approach. , 2022, , .		2
1386	Temporal–spectral signaling of sensory information and expectations in the cerebral processing of pain. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	17
1387	State anxiety alters the neural oscillatory correlates of predictions and prediction errors during reward-based learning. Neurolmage, 2022, 249, 118895.	2.1	15
1388	Bridging physiological and perceptual views of autism by means of sampling-based Bayesian inference. Network Neuroscience, 0, , 1-17.	1.4	1
1389	Sound omission related brain responses in children. Developmental Cognitive Neuroscience, 2022, 53, 101045.	1.9	4
1390	Layer-specific activation in human primary somatosensory cortex during tactile temporal prediction error processing. NeuroImage, 2022, 248, 118867.	2.1	11
1391	Predisposition to domain-wide maladaptive changes in predictive coding in auditory phantom perception. NeuroImage, 2022, 248, 118813.	2.1	10
1392	Traveling waves in the prefrontal cortex during working memory. PLoS Computational Biology, 2022, 18, e1009827.	1.5	37
1393	Neurons learn by predicting future activity. Nature Machine Intelligence, 2022, 4, 62-72.	8.3	33
1397	The interaction of predictive processing and similarity-based retrieval interference: an ERP study. Language, Cognition and Neuroscience, 2022, 37, 883-901.	0.7	4
1398	Laminar microcircuitry of visual cortex producing attention-associated electric fields. ELife, 2022, 11, .	2.8	12
1399	Interoception as modeling, allostasis as control. Biological Psychology, 2022, 167, 108242.	1.1	34
1400	Novel stimuli evoke excess activity in the mouse primary visual cortex. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	23
1401	Predictive Neuronal Adaptation as a Basis for Consciousness. Frontiers in Systems Neuroscience, 2021, 15, 767461.	1.2	6
1402	Dynamic primitives of brain network interaction. NeuroImage, 2022, 250, 118928.	2.1	18
1403	Computational Approaches to Treatment Response Prediction in Major Depression Using Brain Activity and Behavioral Data: A Systematic Review. Network Neuroscience, 0, , 1-52.	1.4	1
1404	Corticocortical innervation subtypes of layer 5 intratelencephalic cells in the murine secondary motor cortex. Cerebral Cortex, 2022, 33, 50-67.	1.6	3

#	Article	IF	CITATIONS
1405	Perceptual reality monitoring: Neural mechanisms dissociating imagination from reality. Neuroscience and Biobehavioral Reviews, 2022, 135, 104557.	2.9	37
1406	The heart rate discrimination task: A psychophysical method to estimate the accuracy and precision of interoceptive beliefs. Biological Psychology, 2022, 168, 108239.	1.1	40
1408	Simulating homeostatic, allostatic and goal-directed forms of interoceptive control using active inference. Biological Psychology, 2022, 169, 108266.	1.1	34
1409	Power spectrum slope confounds estimation of instantaneous oscillatory frequency. NeuroImage, 2022, 250, 118929.	2.1	18
1410	Dynamics of Oddball Sound Processing: Trial-by-Trial Modeling of ECoG Signals. Frontiers in Human Neuroscience, 2021, 15, 794654.	1.0	2
1411	Théories du complot et COVID-19Â: comment naissent les croyances complotistesÂ?. L'Encephale, 2022, 48, 571-582.	0.3	1
1412	Predictive coding of natural images by V1 firing rates and rhythmic synchronization. Neuron, 2022, 110, 1240-1257.e8.	3.8	28
1414	Multi-regional module-based signal transmission in mouse visual cortex. Neuron, 2022, 110, 1585-1598.e9.	3.8	27
1416	Multimodal Representation Learning for Place Recognition Using Deep Hebbian Predictive Coding. Frontiers in Robotics and Al, 2021, 8, 732023.	2.0	15
1417	Top-down tinnitus models. , 2022, , 231-260.		0
1418	A Parsimonious Look at Neural Oscillations in Speech Perception. Springer Handbook of Auditory Research, 2022, , 81-111.	0.3	2
1419	Selective V1-to-V4 Communication of Attended Stimuli Mediated by Attentional Effects in V1. SSRN Electronic Journal, 0, , .	0.4	0
1422	Mechanisms of distributed working memory in a large-scale network of macaque neocortex. ELife, 2022, 11, .	2.8	48
1423	Nonuniformity of Whole-Cerebral Neural Resource Allocation, a Neuromarker of the Broad-Task Attention. ENeuro, 2022, 9, ENEURO.0358-21.2022.	0.9	0
1424	Osteopathic Care as (En)active Inference: A Theoretical Framework for Developing an Integrative Hypothesis in Osteopathy. Frontiers in Psychology, 2022, 13, 812926.	1.1	24
1425	Active inference leads to Bayesian neurophysiology. Neuroscience Research, 2022, 175, 38-45.	1.0	18
1426	Perceptual pathways to hallucinogenesis. Schizophrenia Research, 2022, 245, 77-89.	1.1	7
1427	Schema-Centred Unity and Process-Centred Pluralism of the Predictive Mind. Minds and Machines, 0, , 1.	2.7	0

#	Article	IF	CITATIONS
1428	Deficient Recurrent Cortical Processing in Congenital Deafness. Frontiers in Systems Neuroscience, 2022, 16, 806142.	1.2	10
1429	Allostasis as a core feature of hierarchical gradients in the human brain. Network Neuroscience, 2022, 6, 1010-1031.	1.4	23
1430	Robust effects of corticothalamic feedback and behavioral state on movie responses in mouse dLGN. ELife, 2022, 11, .	2.8	12
1433	On the relationship between predictive coding and backpropagation. PLoS ONE, 2022, 17, e0266102.	1.1	6
1434	A Predictive Coding Framework for Understanding Major Depression. Frontiers in Human Neuroscience, 2022, 16, 787495.	1.0	7
1435	How Psychedelic-Assisted Treatment Works in the Bayesian Brain. Frontiers in Psychiatry, 2022, 13, 812180.	1.3	3
1437	Stress-sensitive inference of task controllability. Nature Human Behaviour, 2022, 6, 812-822.	6.2	8
1438	Corticofugal regulation of predictive coding. ELife, 2022, 11, .	2.8	20
1439	Scaling up Predictive Processing to language with Construction Grammar. Philosophical Psychology, 2023, 36, 553-579.	0.5	4
1440	Reduced Precision Underwrites Ego Dissolution and Therapeutic Outcomes Under Psychedelics. Frontiers in Neuroscience, 2022, 16, 827400.	1.4	4
1441	Diverse functions of the auditory cortico-collicular pathway. Hearing Research, 2022, 425, 108488.	0.9	14
1442	Active inference models do not contradict folk psychology. SynthÃ^se, 2022, 200, 1.	0.6	10
1443	Expectations boost the reconstruction of auditory features from electrophysiological responses to noisy speech. Cerebral Cortex, 2023, 33, 691-708.	1.6	7
1444	Visualizing Compassion: Episodic Simulation as Contemplative Practice. Mindfulness, 2023, 14, 2532-2548.	1.6	3
1446	Emergence of probabilistic representation in the neural network of primary visual cortex. IScience, 2022, 25, 103975.	1.9	3
1447	Towards a cross-level understanding of Bayesian inference in the brain. Neuroscience and Biobehavioral Reviews, 2022, 137, 104649.	2.9	1
1449	From hallucinations to synaesthesia: A circular inference account of unimodal and multimodal erroneous percepts in clinical and drug-induced psychosis. Neuroscience and Biobehavioral Reviews, 2022, 135, 104593.	2.9	7
1450	ç†å¦ç™,法ã¥ã,ªãf¼ãf^ãfẽ,ã,ĩãf¼ã,∙ã,¹. Journal of Allied Health Sciences, 2022, 13, 39-48.	0.0	0

ARTICLE IF CITATIONS # Abnormal effective connectivity in visual cortices underlies stereopsis defects in amblyopia. 1451 5 1.4 NeuroImage: Clinical, 2022, 34, 103005. The neural hierarchy of consciousness: A theoretical model and review on neurophysiology and 1452 NCCs. Neuropsychólogia, 2022, 169, 108202. A whole brain probabilistic generative model: Toward realizing cognitive architectures for 1453 3.3 11 developmental robots. Neural Networks, 2022, 150, 293-312. Exploration in neo-Hebbian reinforcement learning: Computational approaches to the 1454 3.3 exploration–exploitation balance with bio-inspired neural networks. Neural Networks, 2022, 151, 16-33. Alpha-to-beta- and gamma-band activity reflect predictive coding in affective visual processing. 1455 1.6 12 Scientific Reports, 2021, 11, 23492. Control of noise-induced coherent oscillations in three-neuron motifs. Cognitive Neurodynamics, 2.3 2022, 16, 941-960. Pop-out search instigates beta-gated feature selectivity enhancement across V4 layers. Proceedings of 1458 3.3 11 the National Academy of Sciences of the United States of America, 2021, 118, . OUP accepted manuscript. Cerebral Cortex, 2022, , . 1459 1.6 Latency shortening with enhanced sparseness and responsiveness in V1 during active visual sensing. 1461 1.6 5 Scientific Reports, 2022, 12, 6021. 1463 The neural coding framework for learning generative models. Nature Communications, 2022, 13, 2064. 5.8 Breathing control, brain, and bodily self-consciousness: Toward immersive digiceuticals to alleviate 1465 1.1 14 respiratory suffering. Biological Psychology, 2022, 171, 108329. Knowledge-augmented face perception: Prospects for the Bayesian brain-framework to align AI and 1466 0.8 human vision. Consciousness and Cognition, 2022, 101, 103301. Predictive Coding Approximates Backprop Along Arbitrary Computation Graphs. Neural Computation, 1488 1.3 23 2022, 34, 1329-1368. Copredication in Context: A Predictive Processing Approach. Cognitive Science, 2022, 46, e13138. 1489 0.8 Layer-specific population rate coding in a local cortical model with a laminar structure. Nonlinear 1490 2.7 1 Dynamics, 2022, 109, 1107-1121. Applying the Free Energy Principle to Complex Adaptive Systems. Entropy, 2022, 24, 689. 1491 1.1 Do psychedelics change beliefs?. Psychopharmacology, 2022, 239, 1809-1821. 1492 1.57 Interaction within and between cortical networks subserving multisensory learning and its 1.6 reorganization due to musical expertise. Scientific Reports, 2022, 12, 7891.

#	Article	IF	CITATIONS
1494	Investigation of two neural mass models for DCMâ€based effective connectivity inference in temporal epilepsy. Computer Methods and Programs in Biomedicine, 2022, 221, 106840.	2.6	1
1495	Locality in Language and Locality in Brain Oscillatory Structures. Biolinguistics, 0, 9, 074-095.	0.6	6
1496	Assessing Dysfunctional Expectations in Posttraumatic Stress Disorder: Development and Validation of the Posttraumatic Expectations Scale (PTES). Assessment, 2023, 30, 1285-1301.	1.9	3
1499	Two Distinct Neural Mechanisms Underlying Acupuncture Analgesia. Frontiers in Pain Research, 2022, 3, .	0.9	2
1500	The N400 in silico: A review of computational models. Psychology of Learning and Motivation - Advances in Research and Theory, 2022, , 123-206.	0.5	7
1502	An informal reconstruction of the free-energy framework, examining the conceptual problems that arise. Neuropsychologia, 2022, , 108281.	0.7	0
1503	EMDR Therapy and PTSD: A Goal-Directed Predictive Processing Perspective. Journal of EMDR Practice and Research, 2022, 16, 108-122.	0.2	1
1504	Evaluating the extent to which homeostatic plasticity learns to compute prediction errors in unstructured neuronal networks. Journal of Computational Neuroscience, 0, , .	0.6	0
1505	Alzheimer's Disease, Hearing Loss, and Deviance Detection. Frontiers in Neuroscience, 2022, 16, .	1.4	7
1506	Neurons as hierarchies of quantum reference frames. BioSystems, 2022, 219, 104714.	0.9	12
1507	Backpropagation with biologically plausible spatiotemporal adjustment for training deep spiking neural networks. Patterns, 2022, 3, 100522.	3.1	14
1511	Oscillatory and Aperiodic Neural Activity Jointly Predict Language Learning. Journal of Cognitive Neuroscience, 2022, 34, 1630-1649.	1.1	24
1512	Auditory cortex modelled as a dynamical network of oscillators: understanding event-related fields and their adaptation. Biological Cybernetics, 2022, 116, 475-499.	0.6	4
1513	Dynamic causal communication channels between neocortical areas. Neuron, 2022, 110, 2470-2483.e7.	3.8	17
1516	A Predictive Processing Model of Episodic Memory and Time Perception. Neural Computation, 2022, 34, 1501-1544.	1.3	8
1517	A generic neural factor linking resting-state neural dynamics and the brain's response to unexpectedness in multilevel cognition. Cerebral Cortex, 2023, 33, 2931-2946.	1.6	1
1518	What is neurorepresentationalism? From neural activity and predictive processing to multi-level representations and consciousness. Behavioural Brain Research, 2022, 432, 113969.	1.2	11
1519	Face-induced gamma oscillations and event-related potentials in patients with epilepsy: an intracranial EEG study. BMC Neuroscience, 2022, 23, .	0.8	1

#	Article	IF	CITATIONS
1520	Echolocation-related reversal of information flow in a cortical vocalization network. Nature Communications, 2022, 13, .	5.8	10
1521	Cortical-subcortical interactions in goal-directed behavior. Physiological Reviews, 2023, 103, 347-389.	13.1	13
1522	Reverse Differentiation via Predictive Coding. Proceedings of the AAAI Conference on Artificial Intelligence, 2022, 36, 8150-8158.	3.6	6
1524	Priming of probabilistic attentional templates. Psychonomic Bulletin and Review, 2023, 30, 22-39.	1.4	6
1525	Theory of the Multiregional Neocortex: Large-Scale Neural Dynamics and Distributed Cognition. Annual Review of Neuroscience, 2022, 45, 533-560.	5.0	30
1528	Dual counterstream architecture may support separation between vision and predictions. Consciousness and Cognition, 2022, 103, 103375.	0.8	2
1529	The impact of neuroimaging advancement on neurocognitive evaluation in pediatric brain tumor survivors: A review. Brain Science Advances, 2019, 5, 117-127.	0.3	0
1533	A Hybrid Account of Concepts Within the Predictive Processing Paradigm. Review of Philosophy and Psychology, 2023, 14, 1349-1375.	1.0	3
1538	The neurophysiological effect of NMDA-R antagonism of frontotemporal lobar degeneration is conditional on individual GABA concentration. Translational Psychiatry, 2022, 12, .	2.4	0
1539	A computational lens on menopause-associated psychosis. Frontiers in Psychiatry, 0, 13, .	1.3	5
1540	Rapid adaptation of predictive models during language comprehension: Aperiodic EEG slope, individual alpha frequency and idea density modulate individual differences in real-time model updating. Frontiers in Psychology, 0, 13, .	1.1	11
1541	A Guide for the Multiplexed: The Development of Visual Feature Maps in the Brain. Neuroscience, 2023, 508, 62-75.	1.1	2
1542	Neurophysiological Perspective on Allostasis and Homeostasis: Dynamic Adaptation in Viable Systems. Journal of Robotics and Mechatronics, 2022, 34, 710-717.	0.5	1
1543	How childhood maltreatment alters perception and cognition – the predictive processing account of borderline personality disorder. Psychological Medicine, 2022, 52, 2899-2916.	2.7	6
1544	Computational Contributions of the Thalamus to Learning and Memory. , 2022, , 416-431.		0
1545	Thalamocortical Circuits for Auditory Processing, Plasticity, and Perception. , 2022, , 237-268.		0
1546	Learned uncertainty: The free energy principle in anxiety. Frontiers in Psychology, 0, 13, .	1.1	6
1547	Oversampled and undersolved: Depressive rumination from an active inference perspective. Neuroscience and Biobehavioral Reviews, 2022, 142, 104873.	2.9	6

#	Article	IF	CITATIONS	
1548	Distinct local and brain-wide networks are activated by optogenetic stimulation of neurons specific to each layer of motor cortex. NeuroImage, 2022, 263, 119640.	2.1	7	
1549	New Results from Brain Research and Neuroscience. , 2022, , 203-228.		0	
1550	Beyond mindfulness: Arousal-driven modulation of attentional control during arousal-based practices. Current Research in Neurobiology, 2022, 3, 100053.	1.1	3	
1551	Internal Feedback in Biological Control: Architectures and Examples. , 2022, , .		4	
1552	Efficient Temporal Coding in the Early Visual System: Existing Evidence and Future Directions. Frontiers in Computational Neuroscience, 0, 16, .	1.2	9	
1553	Adaptive control of synaptic plasticity integrates micro- and macroscopic network function. Neuropsychopharmacology, 2023, 48, 121-144.	2.8	8	
1554	The Effects of Cortical Reorganization and Applications of Functional Near-Infrared Spectroscopy in Deaf People and Cochlear Implant Users. Brain Sciences, 2022, 12, 1150.	1.1	1	
1555	Guiding visual attention in deep convolutional neural networks based on human eye movements. Frontiers in Neuroscience, 0, 16, .	1.4	3	
1558	Computational psychiatry: from synapses to sentience. Molecular Psychiatry, 2023, 28, 256-268.	4.1	31	
1559	Distinct interacting cortical networks for stimulus-response and repetition-suppression. Communications Biology, 2022, 5, .	2.0	0	
1560	Repeating patterns: Predictive processing suggests an aesthetic learning role of the basal ganglia in repetitive stereotyped behaviors. Frontiers in Psychology, 0, 13, .	1.1	3	
1561	Generalized Simultaneous Localization and Mapping (G-SLAM) as unification framework for natural and artificial intelligences: towards reverse engineering the hippocampal/entorhinal system and principles of high-level cognition. Frontiers in Systems Neuroscience, 0, 16, .	1.2	8	
1562	Neural Mechanisms and Psychology of Psychedelic Ego Dissolution. Pharmacological Reviews, 2022, 74, 876-917.	7.1	20	
1564	The Tripod neuron: a minimal structural reduction of the dendritic tree. Journal of Physiology, 2023, 601, 3265-3295.	1.3	1	
1565	High-frequency oscillations-based precise temporal resolution of short latency afferent inhibition in the human brain. Clinical Neurophysiology, 2022, 144, 135-141.	0.7	4	
1566	Neurophysiological mechanisms of implicit and explicit memory in the process of consciousness. Journal of Neurophysiology, 2022, 128, 872-891.	0.9	3	
1567	Multistability, perceptual value, and internal foraging. Neuron, 2022, 110, 3076-3090.	3.8	9	
1569	Rule-based and stimulus-based cues bias auditory decisions via different computational and physiological mechanisms. PLoS Computational Biology, 2022, 18, e1010601.	1.5	2	
		CITATION REPC	DRT	
------	---	---------------	-----	-----------
#	Article	I	F	Citations
1571	Distinct organization of two cortico-cortical feedback pathways. Nature Communications, 202	2, 13, . 5	5.8	11
1575	A quantitative model reveals a frequency ordering of prediction and prediction-error signals in human brain. Communications Biology, 2022, 5, .	the 2	2.0	6
1576	Calibrating vision: Concepts and questions. Vision Research, 2022, 201, 108131.	C).7	3
1577	Functional architecture of executive control and associated event-related potentials in macaqu Nature Communications, 2022, 13, .	es. 5	5.8	10
1578	Precise movement-based predictions in the mouse auditory cortex. Current Biology, 2022, 32, 4925-4940.e6.	1	8	20
1579	Testable or bust: theoretical lessons for predictive processing. SynthÃ^se, 2022, 200, .	C).6	4
1580	Computational Modeling of Oddball Sequence Processing Exposes Common and Differential A Network Changes in First-Episode Schizophrenia-Spectrum Disorders and Schizophrenia. Schizophrenia Bulletin, 2023, 49, 407-416.	uditory 2	2.3	4
1581	Effects of face repetition on ventral visual stream connectivity using dynamic causal modelling fMRI data. NeuroImage, 2022, 264, 119708.	of 2	2.1	2
1582	Key Issues and Future Directions: The Neural Architecture for Language. , 2019, , 527-530.			2
1584	The Language Conceptual Formation to Inspire Intelligent Systems. Sci, 2022, 4, 42.	1	8	0
1585	Riding the (brain) waves! Using neural oscillations to inform bilingualism research. Bilingualism 2023, 26, 202-215.	, 1	.0	7
1586	More than meets the eye: The role of sensory dimensions in psychedelic brain dynamics, experi therapeutics. Neuropharmacology, 2023, 223, 109300.	ence, and 2	2.0	15
1587	What does the free energy principle tell us about the brain?. Neurons, Behavior, Data Analysis, Theory, 2019, 2, .	and 1	8	18
1589	Where is the error? Hierarchical predictive coding through dendritic error computation. Trends Neurosciences, 2023, 46, 45-59.	in 4	1.2	31
1590	Pain, from perception to action: A computational perspective. IScience, 2023, 26, 105707.	1	.9	5
1593	Dynamic interactions between anterior insula and anterior cingulate cortex link perceptual fear and heart rate variability during movie viewing. Network Neuroscience, 0, , 1-37.	tures 1	4	0
1594	Integrated world modeling theory expanded: Implications for the future of consciousness. From in Computational Neuroscience, 0, 16, .	tiers 1	2	11
1595	Probing top-down information in neocortical layer 1. Trends in Neurosciences, 2023, 46, 20-31	. 4	1.2	8

#	Article	IF	CITATIONS
1598	Predictive coding is a consequence of energy efficiency in recurrent neural networks. Patterns, 2022, 3, 100639.	3.1	17
1599	Depersonalization disorder as a systematic downregulation of interoceptive signals. Scientific Reports, 2022, 12, .	1.6	6
1600	Visual motion perception as online hierarchical inference. Nature Communications, 2022, 13, .	5.8	5
1602	Taking subjectivity seriously: towards a unification of phenomenology, psychiatry, and neuroscience. Molecular Psychiatry, 2023, 28, 10-16.	4.1	10
1603	Task-evoked pupillary responses track precision-weighted prediction errors and learning rate during interceptive visuomotor actions. Scientific Reports, 2022, 12, .	1.6	6
1604	Transcranial direct current stimulation of the right anterior temporal lobe changes interpersonal neural synchronization and shared mental processes. Brain Stimulation, 2023, 16, 28-39.	0.7	5
1605	Revealing the neurobiology underlying interpersonal neural synchronization with multimodal data fusion. Neuroscience and Biobehavioral Reviews, 2023, 146, 105042.	2.9	7
1606	Dissociating Hippocampal and Cortical Contributions to Predictive Processing. Journal of Neuroscience, 2023, 43, 184-186.	1.7	0
1608	MARTI-4: New Model of Human Brain, Considering Neocortex and Basal Ganglia – Learns to Play Atari Game by Reinforcement Learning on a Single CPU. Lecture Notes in Computer Science, 2023, , 62-74.	1.0	1
1609	Computational methods to study information processing in neural circuits. Computational and Structural Biotechnology Journal, 2023, 21, 910-922.	1.9	0
1610	Neurodegenerative disease of the brain: a survey of interdisciplinary approaches. Journal of the Royal Society Interface, 2023, 20, .	1.5	6
1611	Being active over one's own motion: Considering predictive mechanisms in self-motion perception. Neuroscience and Biobehavioral Reviews, 2023, , 105051.	2.9	1
1613	Inhibitory top-down projections from zona incerta mediate neocortical memory. Neuron, 2023, 111, 727-738.e8.	3.8	14
1614	The molecular memory code and synaptic plasticity: A synthesis. BioSystems, 2023, 224, 104825.	0.9	13
1615	Dynamic causal modelling shows a prominent role of local inhibition in alpha power modulation in higher visual cortex. PLoS Computational Biology, 2022, 18, e1009988.	1.5	0
1617	Information theoretic evidence for layer- and frequency-specific changes in cortical information processing under anesthesia. PLoS Computational Biology, 2023, 19, e1010380.	1.5	2
1618	Interacting rhythms enhance sensitivity of target detection in a fronto-parietal computational model of visual attention. ELife, 0, 12, .	2.8	0
1619	Generation and Application of Engineered Rabies Viral Vectors for Neural Circuit Research. Neuromethods, 2023, , 51-75.	0.2	0

CITATION REPORT

CITATION REPORT

#	Article	IF	CITATIONS
1621	Neurophysiological mechanisms of error monitoring in human and non-human primates. Nature Reviews Neuroscience, 2023, 24, 153-172.	4.9	17
1622	The neural representations underlying asymmetric crossâ€modal prediction of words. Human Brain Mapping, 2023, 44, 2418-2435.	1.9	1
1623	AIXI, FEP-AI, and Integrated World Models: Towards a Unified Understanding of Intelligence and Consciousness. Communications in Computer and Information Science, 2023, , 251-273.	0.4	1
1624	Dysconnection and cognition in schizophrenia: A spectral dynamic causal modeling study. Human Brain Mapping, 2023, 44, 2873-2896.	1.9	4
1626	Anterior cingulate and medial prefrontal cortex oscillations underlie learning alterations in trait anxiety in humans. Communications Biology, 2023, 6, .	2.0	5
1627	A deep hierarchy of predictions enables online meaning extraction in a computational model of human speech comprehension. PLoS Biology, 2023, 21, e3002046.	2.6	1
1629	What multiplexing means for the interpretation of functional MRI data. Frontiers in Human Neuroscience, 0, 17, .	1.0	0
1630	A physical neural mass model framework for the analysis of oscillatory generators from laminar electrophysiological recordings. NeuroImage, 2023, 270, 119938.	2.1	7
1631	Functional network properties of the auditory cortex. Hearing Research, 2023, 433, 108768.	0.9	2
1633	Bayesian surprise shapes neural responses in somatosensory cortical circuits. Cell Reports, 2023, 42, 112009.	2.9	3
1634	Understanding mental health through computers: An introduction to computational psychiatry. Frontiers in Psychiatry, 0, 14, .	1.3	0
1635	Global dynamics of neural mass models. PLoS Computational Biology, 2023, 19, e1010915.	1.5	5
1637	Developmental mechanisms underlying the evolution of human cortical circuits. Nature Reviews Neuroscience, 2023, 24, 213-232.	4.9	34
1638	Locomotion-induced gain of visual responses cannot explain visuomotor mismatch responses in layer 2/3 of primary visual cortex. Cell Reports, 2023, 42, 112096.	2.9	5
1639	Neural correlates of emotional valence for faces and words. Frontiers in Psychology, 0, 14, .	1.1	1
1640	Amygdala connectivity related to subsequent stress responses during the COVID-19 outbreak. Frontiers in Psychiatry, 0, 14, .	1.3	1
1642	Expectation violations enhance neuronal encoding of sensory information in mouse primary visual cortex. Nature Communications, 2023, 14, .	5.8	8
1643	Hierarchical predictive coding in distributed pain circuits. Frontiers in Neural Circuits, 0, 17, .	1.4	3

		CITATION REPORT		
#	Article		IF	CITATIONS
1645	Distinct roles of forward and backward alpha-band waves in spatial visual attention. ELife	, 0, 12, .	2.8	13
1647	Brain-like Combination of Feedforward and Recurrent Network Components Achieves Pro Extraction and Robust Pattern Recognition. Lecture Notes in Computer Science, 2023, , 4	ototype 488-501.	1.0	0
1648	Psychotic Disorders ("Schizophreniaâ€). , 2023, , 263-282.			1
1649	A survey of neurophysiological differentiation across mouse visual brain areas and timesc Frontiers in Computational Neuroscience, 0, 17, .	ales.	1.2	1
1651	Random Tactile Noise Stimulation Reveals Beta-Rhythmic Impulse Response Function of t Somatosensory System. Journal of Neuroscience, 2023, 43, 3107-3119.	he	1.7	2
1652	Flexible intentions: An Active Inference theory. Frontiers in Computational Neuroscience,	0, 17, .	1.2	7
1653	Deriving Time-Averaged Active Inference fromÂControl Principles. Communications in Co Information Science, 2023, , 355-370.	mputer and	0.4	1
1654	Subjective signal strength distinguishes reality from imagination. Nature Communication	s, 2023, 14, .	5.8	18
1655	The maternal brain is more flexible and responsive at rest: effective connectivity of the pa caregiving network in postpartum mothers. Scientific Reports, 2023, 13, .	irental	1.6	5
1656	Adaptive control of functional connectivity: dorsal and ventral limbic divisions regulate th and ventral neocortical networks. Cerebral Cortex, 2023, 33, 7870-7895.	ie dorsal	1.6	3
1659	How the conception of control influences our understanding of actions. Nature Reviews Neuroscience, 2023, 24, 313-329.		4.9	4
1661	Principles of large-scale neural interactions. Neuron, 2023, 111, 987-1002.		3.8	21
1663	A predictive coding approach to modelling the perceived complexity of popular music dru Heliyon, 2023, 9, e15199.	ım patterns.	1.4	3
1664	With great power comes great vulnerability: an ethical analysis of psychedelics' thera mechanisms proposed by the REBUS hypothesis. Journal of Medical Ethics, 2023, 49, 826	peutic -832.	1.0	3
1666	Recurrent predictive coding models for associative memory employing covariance learnin Computational Biology, 2023, 19, e1010719.	g. PLoS	1.5	4
1667	Free energy and inference in living systems. Interface Focus, 2023, 13, .		1.5	5
1668	<pre><scp>EEG</scp> mismatch responses in a multimodal roving stimulus paradigm provide probabilistic inference across audition, somatosensation, and vision. Human Brain Mappi 3644-3668.</pre>	evidence for ng, 2023, 44,	1.9	7
1670	Local brain oscillations and interregional connectivity differentially serve sensory and exp effects on pain. Science Advances, 2023, 9, .	ectation	4.7	3

CITATION REPORT

#	Article	IF	CITATIONS
1671	A parahippocampal-sensory Bayesian vicious circle generates pain or tinnitus: a source-localized EEG study. Brain Communications, 2023, 5, .	1.5	5
1681	Neural Circuit Model of Long-Term Potentiation from Intermittent Theta Burst Stimulation. , 2023, , .		0
1708	Post-injury pain and behaviour: a control theory perspective. Nature Reviews Neuroscience, 2023, 24, 378-392.	4.9	7
1713	The impact of the human thalamus on brain-wide information processing. Nature Reviews Neuroscience, 2023, 24, 416-430.	4.9	36
1727	Brain networks involved in deviance and novelty detection: Are they sensory modality specific?. , 2023, , 315-343.		0
1729	Role of event-related potentials and brain rhythms in predictive coding. , 2023, , 187-220.		0
1730	A primer on predictive coding and network modeling. , 2023, , 1-36.		0
1760	How Does Artificial Intelligence Contribute to iEEG Research?. Studies in Neuroscience, Psychology and Behavioral Economics, 2023, , 761-802.	0.1	2
1761	Which Rhythms Reflect Bottom-Up and Top-Down Processing?. Studies in Neuroscience, Psychology and Behavioral Economics, 2023, , 389-414.	0.1	0
1792	How deep is the brain? The shallow brain hypothesis. Nature Reviews Neuroscience, 2023, 24, 778-791.	4.9	5
1794	Extrinsische Bereitschaftsnetzwerke. , 2023, , 89-94.		0
1853	Exploring mechanisms of psychedelic action using neuroimaging. , 2024, 2, 141-153.		0
1854	Computational modeling and autonomic control. , 2024, , .		0
1855	Hierarchical AGI from First Principles. Studies in Computational Intelligence, 2024, , 823-831.	0.7	0
1075	The Device Proin and Tinniture 2024 180 202		

1875 The Bayesian Brain and Tinnitus. , 2024, , 189-203.

0