

# Pascal Fries

## List of Publications by Year in descending order

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136  
papers

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citations

14124

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170  
docs citations

170  
times ranked

25738  
citing authors

#	ARTICLE	IF	CITATIONS
1	Predictive coding of natural images by V1 firing rates and rhythmic synchronization. <i>Neuron</i> , 2022, 110, 1240-1257.e8.	3.8	28
2	Spontaneous variability in gamma dynamics described by a damped harmonic oscillator driven by noise. <i>Nature Communications</i> , 2022, 13, 2019.	5.8	21
3	What to Do If $N$ Is Two?. <i>Journal of Cognitive Neuroscience</i> , 2022, 34, 1114-1118.	1.1	9
4	Human visual gamma for color stimuli. <i>ELife</i> , 2022, 11, .	2.8	7
5	Hemispheres in harmony. <i>Neuron</i> , 2021, 109, 916-917.	3.8	0
6	Right inferior frontal gyrus implements motor inhibitory control via beta-band oscillations in humans. <i>ELife</i> , 2021, 10, .	2.8	42
7	Visual Neuroscience Methods for Marmosets: Efficient Receptive Field Mapping and Head-Free Eye Tracking. <i>ENeuro</i> , 2021, 8, ENEURO.0489-20.2021.	0.9	8
8	Cortical gamma-band resonance preferentially transmits coherent input. <i>Cell Reports</i> , 2021, 35, 109083.	2.9	26
9	Stimulus-specific plasticity in human visual gamma-band activity and functional connectivity. <i>ELife</i> , 2021, 10, .	2.8	14
10	Visual exposure enhances stimulus encoding and persistence in primary cortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	12
11	Brain rhythms define distinct interaction networks with differential dependence on anatomy. <i>Neuron</i> , 2021, 109, 3862-3878.e5.	3.8	60
12	Stimulus-specific plasticity of macaque V1 spike rates and gamma. <i>Cell Reports</i> , 2021, 37, 110086.	2.9	14
13	A Distinct Class of Bursting Neurons with Strong Gamma Synchronization and Stimulus Selectivity in Monkey V1. <i>Neuron</i> , 2020, 105, 180-197.e5.	3.8	45
14	Magneto-resistive Sensor in Two-Dimension on a 25 $\mu$ m Thick Silicon Substrate for In Vivo Neuronal Measurements. <i>ACS Sensors</i> , 2020, 5, 3493-3500.	4.0	12
15	Movement-related coupling of human subthalamic nucleus spikes to cortical gamma. <i>ELife</i> , 2020, 9, .	2.8	21
16	Human visual cortical gamma reflects natural image structure. <i>NeuroImage</i> , 2019, 200, 635-643.	2.1	21
17	Entanglement and relative entropy of a chiral fermion on the torus. <i>Physical Review D</i> , 2019, 100, .	1.6	16
18	Entanglement Spectrum of Chiral Fermions on the Torus. <i>Physical Review Letters</i> , 2019, 123, 211603.	2.9	31

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19	Cortical layers, rhythms and BOLD signals. <i>NeuroImage</i> , 2019, 197, 689-698.	2.1	74
20	Surface color and predictability determine contextual modulation of V1 firing and gamma oscillations. <i>ELife</i> , 2019, 8, .	2.8	70
21	Gamma Synchronization between V1 and V4 Improves Behavioral Performance. <i>Neuron</i> , 2018, 100, 953-963.e3.	3.8	81
22	Investigating large-scale brain dynamics using field potential recordings: analysis and interpretation. <i>Nature Neuroscience</i> , 2018, 21, 903-919.	7.1	299
23	A theta rhythm in macaque visual cortex and its attentional modulation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E5614-E5623.	3.3	142
24	Cortical volume and sex influence visual gamma. <i>NeuroImage</i> , 2018, 178, 702-712.	2.1	27
25	Source-reconstruction of the sensorimotor network from resting-state macaque electrocorticography. <i>NeuroImage</i> , 2018, 181, 347-358.	2.1	9
26	Finite speed heat transport in a quantum spin chain after quenched local cooling. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2017, 50, 145302.	0.7	0
27	Top-Down Beta Enhances Bottom-Up Gamma. <i>Journal of Neuroscience</i> , 2017, 37, 6698-6711.	1.7	138
28	Implementing the sine transform of fermionic modes as a tensor network. <i>Physical Review A</i> , 2017, 96, .	1.0	1
29	InVivo Magnetic Recording of Neuronal Activity. <i>Neuron</i> , 2017, 95, 1283-1291.e4.	3.8	48
30	Linear distributed source modeling of local field potentials recorded with intra-cortical electrode arrays. <i>PLoS ONE</i> , 2017, 12, e0187490.	1.1	4
31	Alpha power indexes task-related networks on large and small scales: A multimodal ECoG study in humans and a non-human primate. <i>NeuroImage</i> , 2016, 134, 122-131.	2.1	77
32	Areas V1 and V2 show microsaccade-related 3-4 Hz covariation in gamma power and frequency. <i>European Journal of Neuroscience</i> , 2016, 43, 1286-1296.	1.2	58
33	Gamma-Rhythmic Gain Modulation. <i>Neuron</i> , 2016, 92, 240-251.	3.8	111
34	Selective Neural Synchrony Suppression as a Forward Gatekeeper to Piecemeal Conscious Perception. <i>Cerebral Cortex</i> , 2016, 26, 3010-3022.	1.6	10
35	Dissociable attentional and inhibitory networks of dorsal and ventral areas of the right inferior frontal cortex: a combined task-specific and coordinate-based meta-analytic fMRI study. <i>Brain Structure and Function</i> , 2016, 221, 1635-1651.	1.2	67
36	Alpha-Beta and Gamma Rhythms Subserve Feedback and Feedforward Influences among Human Visual Cortical Areas. <i>Neuron</i> , 2016, 89, 384-397.	3.8	582

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37	Stimulus-induced visual cortical networks are recapitulated by spontaneous local and interareal synchronization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E606-15.	3.3	56
38	Diverse Phase Relations among Neuronal Rhythms and Their Potential Function. <i>Trends in Neurosciences</i> , 2016, 39, 86-99.	4.2	108
39	Neuronal Oscillations, Coherence, and Consciousness. , 2016, , 49-60.		15
40	Both ongoing alpha and visually induced gamma oscillations show reliable diversity in their across-site phase-relations. <i>Journal of Neurophysiology</i> , 2015, 113, 1556-1563.	0.9	25
41	Visual Areas Exert Feedforward and Feedback Influences through Distinct Frequency Channels. <i>Neuron</i> , 2015, 85, 390-401.	3.8	1,036
42	How to detect the Granger-causal flow direction in the presence of additive noise?. <i>NeuroImage</i> , 2015, 108, 301-318.	2.1	115
43	A DCM study of spectral asymmetries in feedforward and feedback connections between visual areas V1 and V4 in the monkey. <i>NeuroImage</i> , 2015, 108, 460-475.	2.1	129
44	A jackknife approach to quantifying single-trial correlation between covariance-based metrics undefined on a single-trial basis. <i>NeuroImage</i> , 2015, 114, 57-70.	2.1	47
45	A Statistical Framework to Infer Delay and Direction of Information Flow from Measurements of Complex Systems. <i>Neural Computation</i> , 2015, 27, 1555-1608.	1.3	18
46	Visual Cortical Gamma-Band Activity During Free Viewing of Natural Images. <i>Cerebral Cortex</i> , 2015, 25, 918-926.	1.6	107
47	Distributed Attention Is Implemented through Theta-Rhythmic Gamma Modulation. <i>Current Biology</i> , 2015, 25, 2332-2337.	1.8	232
48	Rhythms for Cognition: Communication through Coherence. <i>Neuron</i> , 2015, 88, 220-235.	3.8	1,949
49	Recording of brain activity across spatial scales. <i>Current Opinion in Neurobiology</i> , 2015, 32, 68-77.	2.0	69
50	Communication through coherence with inter-areal delays. <i>Current Opinion in Neurobiology</i> , 2015, 31, 173-180.	2.0	203
51	Beta Oscillation Dynamics in Extrastriate Cortex after Removal of Primary Visual Cortex. <i>Journal of Neuroscience</i> , 2014, 34, 11857-11864.	1.7	42
52	Stimulus repetition modulates gamma-band synchronization in primate visual cortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 3626-3631.	3.3	112
53	Gamma or no gamma, that is the question. <i>Trends in Cognitive Sciences</i> , 2014, 18, 507-509.	4.0	55
54	Contrast gain control and horizontal interactions in V1: A DCM study. <i>NeuroImage</i> , 2014, 92, 143-155.	2.1	64

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55	Attentional Modulation of Cell-Class-Specific Gamma-Band Synchronization in Awake Monkey Area V4. <i>Neuron</i> , 2013, 80, 1077-1089.	3.8	174
56	Gamma oscillations: precise temporal coordination without a metronome. <i>Trends in Cognitive Sciences</i> , 2013, 17, 54-55.	4.0	90
57	Adding dynamics to the Human Connectome Project with MEG. <i>NeuroImage</i> , 2013, 80, 190-201.	2.1	189
58	Reduced Occipital Alpha Power Indexes Enhanced Excitability Rather than Improved Visual Perception. <i>Journal of Neuroscience</i> , 2013, 33, 3212-3220.	1.7	184
59	Rhythmic neuronal synchronization in visual cortex entails spatial phase relation diversity that is modulated by stimulation and attention. <i>NeuroImage</i> , 2013, 74, 99-116.	2.1	36
60	Alpha-band suppression in the visual word form area as a functional bottleneck to consciousness. <i>NeuroImage</i> , 2013, 78, 33-45.	2.1	21
61	Visual stimulus eccentricity affects human gamma peak frequency. <i>NeuroImage</i> , 2013, 78, 439-447.	2.1	49
62	Robust Gamma Coherence between Macaque V1 and V2 by Dynamic Frequency Matching. <i>Neuron</i> , 2013, 78, 523-536.	3.8	234
63	Oscillatory activity in the monkey hippocampus during visual exploration and memory formation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 13144-13149.	3.3	234
64	Orientation selectivity and noise correlation in awake monkey area V1 are modulated by the gamma cycle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 4302-4307.	3.3	108
65	Thalamic Coordination of Cortical Communication. <i>Neuron</i> , 2012, 75, 551-552.	3.8	27
66	Canonical Microcircuits for Predictive Coding. <i>Neuron</i> , 2012, 76, 695-711.	3.8	1,876
67	Attentional Stimulus Selection through Selective Synchronization between Monkey Visual Areas. <i>Neuron</i> , 2012, 75, 875-888.	3.8	665
68	DCM for complex-valued data: Cross-spectra, coherence and phase-delays. <i>NeuroImage</i> , 2012, 59, 439-455.	2.1	120
69	Magnetoencephalography in Twins Reveals a Strong Genetic Determination of the Peak Frequency of Visually Induced Gamma-Band Synchronization. <i>Journal of Neuroscience</i> , 2012, 32, 3388-3392.	1.7	108
70	Attention Samples Stimuli Rhythmically. <i>Current Biology</i> , 2012, 22, 1000-1004.	1.8	509
71	Perception of the touch-induced visual double-flash illusion correlates with changes of rhythmic neuronal activity in human visual and somatosensory areas. <i>NeuroImage</i> , 2011, 54, 1395-1405.	2.1	40
72	FieldTrip: Open Source Software for Advanced Analysis of MEG, EEG, and Invasive Electrophysiological Data. <i>Computational Intelligence and Neuroscience</i> , 2011, 2011, 1-9.	1.1	7,466

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73	Neuronal Dynamics Underlying High- and Low-Frequency EEG Oscillations Contribute Independently to the Human BOLD Signal. <i>Neuron</i> , 2011, 69, 572-583.	3.8	408
74	Selective Movement Preparation Is Suberved by Selective Increases in Corticomuscular Gamma-Band Coherence. <i>Journal of Neuroscience</i> , 2011, 31, 6750-6758.	1.7	93
75	Laminar differences in gamma and alpha coherence in the ventral stream. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 11262-11267.	3.3	547
76	Rhythmic Neuronal Synchronization Subverses Selective Attentional Processing. <i>Research and Perspectives in Neurosciences</i> , 2011, , 109-132.	0.4	6
77	Beta-band oscillations " signalling the status quo?. <i>Current Opinion in Neurobiology</i> , 2010, 20, 156-165.	2.0	2,121
78	A backward progression of attentional effects in the ventral stream. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 361-365.	3.3	252
79	Neuronal Synchronization in Human Posterior Parietal Cortex during Reach Planning. <i>Journal of Neuroscience</i> , 2010, 30, 1402-1412.	1.7	73
80	Gamma-Phase Shifting in Awake Monkey Visual Cortex. <i>Journal of Neuroscience</i> , 2010, 30, 1250-1257.	1.7	165
81	Corticospinal Beta-Band Synchronization Entails Rhythmic Gain Modulation. <i>Journal of Neuroscience</i> , 2010, 30, 4481-4488.	1.7	105
82	The pairwise phase consistency: A bias-free measure of rhythmic neuronal synchronization. <i>NeuroImage</i> , 2010, 51, 112-122.	2.1	406
83	Visually induced gamma-band activity predicts speed of change detection in humans. <i>NeuroImage</i> , 2010, 51, 1162-1167.	2.1	86
84	A MEMS-based flexible multichannel ECoG-electrode array. <i>Journal of Neural Engineering</i> , 2009, 6, 036003.	1.8	354
85	Gamma-Band Synchronization in the Macaque Hippocampus and Memory Formation. <i>Journal of Neuroscience</i> , 2009, 29, 12521-12531.	1.7	159
86	Stimulus-Induced and State-Dependent Sustained Gamma Activity Is Tightly Coupled to the Hemodynamic Response in Humans. <i>Journal of Neuroscience</i> , 2009, 29, 13962-13970.	1.7	77
87	Inverse Mapping the Neuronal Substrates of Face Categorizations. <i>Cerebral Cortex</i> , 2009, 19, 2428-2438.	1.6	35
88	A Microsaccadic Rhythm Modulates Gamma-Band Synchronization and Behavior. <i>Journal of Neuroscience</i> , 2009, 29, 9471-9480.	1.7	202
89	Tactile stimulation accelerates behavioral responses to visual stimuli through enhancement of occipital gamma-band activity. <i>Vision Research</i> , 2009, 49, 931-942.	0.7	28
90	Buildup of Choice-Predictive Activity in Human Motor Cortex during Perceptual Decision Making. <i>Current Biology</i> , 2009, 19, 1581-1585.	1.8	434

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91	The Model- and the Data-Gamma. <i>Neuron</i> , 2009, 64, 601-602.	3.8	38
92	Neuronal Gamma-Band Synchronization as a Fundamental Process in Cortical Computation. <i>Annual Review of Neuroscience</i> , 2009, 32, 209-224.	5.0	1,441
93	Biased competition through variations in amplitude of $\beta$ -oscillations. <i>Journal of Computational Neuroscience</i> , 2008, 25, 89-107.	0.6	33
94	Finding Gamma. <i>Neuron</i> , 2008, 58, 303-305.	3.8	126
95	Neuronal Synchronization along the Dorsal Visual Pathway Reflects the Focus of Spatial Attention. <i>Neuron</i> , 2008, 60, 709-719.	3.8	448
96	Imaging the human motor system's beta-band synchronization during isometric contraction. <i>NeuroImage</i> , 2008, 41, 437-447.	2.1	96
97	Gamma-Band Activity in Human Posterior Parietal Cortex Encodes the Motor Goal during Delayed Prosaccades and Antisaccades. <i>Journal of Neuroscience</i> , 2008, 28, 8397-8405.	1.7	108
98	The Effects of Visual Stimulation and Selective Visual Attention on Rhythmic Neuronal Synchronization in Macaque Area V4. <i>Journal of Neuroscience</i> , 2008, 28, 4823-4835.	1.7	379
99	High-Frequency Activity in Human Visual Cortex Is Modulated by Visual Motion Strength. <i>Cerebral Cortex</i> , 2007, 17, 732-741.	1.6	131
100	Oscillatory Activity in Human Parietal and Occipital Cortex Shows Hemispheric Lateralization and Memory Effects in a Delayed Double-Step Saccade Task. <i>Cerebral Cortex</i> , 2007, 17, 2364-2374.	1.6	149
101	The gamma cycle. <i>Trends in Neurosciences</i> , 2007, 30, 309-316.	4.2	943
102	Modulation of Neuronal Interactions Through Neuronal Synchronization. <i>Science</i> , 2007, 316, 1609-1612.	6.0	1,197
103	Inability to directly detect magnetic field changes associated with neuronal activity. <i>Magnetic Resonance in Medicine</i> , 2007, 57, 411-416.	1.9	62
104	The role of neuronal synchronization in selective attention. <i>Current Opinion in Neurobiology</i> , 2007, 17, 154-160.	2.0	434
105	Nonparametric statistical testing of coherence differences. <i>Journal of Neuroscience Methods</i> , 2007, 163, 161-175.	1.3	246
106	Population Activity in the Human Dorsal Pathway Predicts the Accuracy of Visual Motion Detection. <i>Journal of Neurophysiology</i> , 2007, 98, 345-359.	0.9	141
107	Localizing human visual gamma-band activity in frequency, time and space. <i>NeuroImage</i> , 2006, 29, 764-773.	2.1	439
108	Cortical responses to contextual influences in amodal completion. <i>NeuroImage</i> , 2006, 32, 1815-1825.	2.1	19

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109	Gamma-band synchronization in visual cortex predicts speed of change detection. <i>Nature</i> , 2006, 439, 733-736.	13.7	690
110	Neuronal coherence during selective attentional processing and sensory-motor integration. <i>Journal of Physiology (Paris)</i> , 2006, 100, 182-193.	2.1	131
111	Tactile Spatial Attention Enhances Gamma-Band Activity in Somatosensory Cortex and Reduces Low-Frequency Activity in Parieto-Occipital Areas. <i>Journal of Neuroscience</i> , 2006, 26, 490-501.	1.7	417
112	Assessing Neuronal Coherence with Single-Unit, Multi-Unit, and Local Field Potentials. <i>Neural Computation</i> , 2006, 18, 2256-2281.	1.3	84
113	Empirical mode decomposition: a method for analyzing neural data. <i>Neurocomputing</i> , 2005, 65-66, 801-807.	3.5	104
114	Empirical mode decomposition of field potentials from macaque V4 in visual spatial attention. <i>Biological Cybernetics</i> , 2005, 92, 380-392.	0.6	73
115	Neuronal Coherence as a Mechanism of Effective Corticospinal Interaction. <i>Science</i> , 2005, 308, 111-113.	6.0	460
116	A mechanism for cognitive dynamics: neuronal communication through neuronal coherence. <i>Trends in Cognitive Sciences</i> , 2005, 9, 474-480.	4.0	3,545
117	Selective Visual Attention Modulates Oscillatory Neuronal Synchronization. , 2005, , 520-525.		3
118	Reduced BOLD response to periodic visual stimulation. <i>NeuroImage</i> , 2004, 21, 236-243.	2.1	43
119	Temporal dynamics of attention-modulated neuronal synchronization in macaque V4. <i>Neurocomputing</i> , 2003, 52-54, 481-487.	3.5	15
120	Is synchronized neuronal gamma activity relevant for selective attention?. <i>Brain Research Reviews</i> , 2003, 42, 265-272.	9.1	228
121	When neurons form memories. <i>Trends in Neurosciences</i> , 2003, 26, 123-124.	4.2	36
122	Ocular dominance in extrastriate cortex of strabismic amblyopic cats. <i>Vision Research</i> , 2002, 42, 29-39.	0.7	55
123	Response: The birth of a memory. <i>Trends in Neurosciences</i> , 2002, 25, 281-282.	4.2	7
124	Oscillatory Neuronal Synchronization in Primary Visual Cortex as a Correlate of Stimulus Selection. <i>Journal of Neuroscience</i> , 2002, 22, 3739-3754.	1.7	273
125	Modulation of Oscillatory Neuronal Synchronization by Selective Visual Attention. <i>Science</i> , 2001, 291, 1560-1563.	6.0	2,496
126	Conditions of perceptual selection and suppression during interocular rivalry in strabismic and normal cats. <i>Vision Research</i> , 2001, 41, 771-783.	0.7	12



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127	Rapid feature selective neuronal synchronization through correlated latency shifting. Nature Neuroscience, 2001, 4, 194-200.	7.1	309
128	Dynamic predictions: Oscillations and synchrony in top-down processing. Nature Reviews Neuroscience, 2001, 2, 704-716.	4.9	3,053
129	Temporal Binding, Binocular Rivalry, and Consciousness. Consciousness and Cognition, 1999, 8, 128-151.	0.8	411
130	Does Time Help to Understand Consciousness?. Consciousness and Cognition, 1999, 8, 260-268.	0.8	13
131	Synchronization of oscillatory responses in visual cortex correlates with perception in interocular rivalry. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 12699-12704.	3.3	449
132	Precise spike synchronization in the gamma band increases information gain in awake monkey V1. Frontiers in Systems Neuroscience, 0, 3, .	1.2	0
133	Improved (I)CA-noise elimination of electrophysiological data using band-pass filtered components. Frontiers in Systems Neuroscience, 0, 3, .	1.2	0
134	252-site subdural LFP recordings in monkey reveal large-scale effects of selection attention.. Frontiers in Neuroscience, 0, 4, .	1.4	0
135	Brain-wide synchronization networks subserve attention. Frontiers in Human Neuroscience, 0, 5, .	1.0	0
136	Stimulus-Specific Plasticity of Macaque V1 Spike Rates and Gamma. SSRN Electronic Journal, 0, , .	0.4	1