

# Pascal Fries

## List of Publications by Citations

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143  
papers

32,241  
citations

67  
h-index

170  
g-index

170  
ext. papers

39,387  
ext. citations

9.1  
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7.89  
L-index

#	Paper	IF	Citations
143	FieldTrip: Open source software for advanced analysis of MEG, EEG, and invasive electrophysiological data. <i>Computational Intelligence and Neuroscience</i> , <b>2011</b> , 2011, 156869	3	4747
142	A mechanism for cognitive dynamics: neuronal communication through neuronal coherence. <i>Trends in Cognitive Sciences</i> , <b>2005</b> , 9, 474-80	14	2751
141	Dynamic predictions: oscillations and synchrony in top-down processing. <i>Nature Reviews Neuroscience</i> , <b>2001</b> , 2, 704-16	13.5	2560
140	Modulation of oscillatory neuronal synchronization by selective visual attention. <i>Science</i> , <b>2001</b> , 291, 1560-33	33	2123
139	Beta-band oscillations--signalling the status quo?. <i>Current Opinion in Neurobiology</i> , <b>2010</b> , 20, 156-65	7.6	1526
138	Canonical microcircuits for predictive coding. <i>Neuron</i> , <b>2012</b> , 76, 695-711	13.9	1321
137	Rhythms for Cognition: Communication through Coherence. <i>Neuron</i> , <b>2015</b> , 88, 220-35	13.9	1163
136	Neuronal gamma-band synchronization as a fundamental process in cortical computation. <i>Annual Review of Neuroscience</i> , <b>2009</b> , 32, 209-24	17	1143
135	Modulation of neuronal interactions through neuronal synchronization. <i>Science</i> , <b>2007</b> , 316, 1609-12	33.3	959
134	The gamma cycle. <i>Trends in Neurosciences</i> , <b>2007</b> , 30, 309-16	13.3	810
133	Visual areas exert feedforward and feedback influences through distinct frequency channels. <i>Neuron</i> , <b>2015</b> , 85, 390-401	13.9	650
132	Gamma-band synchronization in visual cortex predicts speed of change detection. <i>Nature</i> , <b>2006</b> , 439, 733-6	50.4	562
131	Attentional stimulus selection through selective synchronization between monkey visual areas. <i>Neuron</i> , <b>2012</b> , 75, 875-88	13.9	505
130	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> , <b>2011</b> , 108, 11262-7	11.5	431
129	Neuronal coherence as a mechanism of effective corticospinal interaction. <i>Science</i> , <b>2005</b> , 308, 111-3	33.3	394
128	Neuronal synchronization along the dorsal visual pathway reflects the focus of spatial attention. <i>Neuron</i> , <b>2008</b> , 60, 709-19	13.9	383
127	Synchronization of oscillatory responses in visual cortex correlates with perception in interocular rivalry. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1997</b> , 94, 12699-704	11.5	376

126	The role of neuronal synchronization in selective attention. <i>Current Opinion in Neurobiology</i> , <b>2007</b> , 17, 154-60	7.6	369
125	Alpha-Beta and Gamma Rhythms Subserve Feedback and Feedforward Influences among Human Visual Cortical Areas. <i>Neuron</i> , <b>2016</b> , 89, 384-97	13.9	356
124	Temporal binding, binocular rivalry, and consciousness. <i>Consciousness and Cognition</i> , <b>1999</b> , 8, 128-51	2.6	348
123	Tactile spatial attention enhances gamma-band activity in somatosensory cortex and reduces low-frequency activity in parieto-occipital areas. <i>Journal of Neuroscience</i> , <b>2006</b> , 26, 490-501	6.6	345
122	Localizing human visual gamma-band activity in frequency, time and space. <i>NeuroImage</i> , <b>2006</b> , 29, 764-73	7.9	344
121	Neuronal dynamics underlying high- and low-frequency EEG oscillations contribute independently to the human BOLD signal. <i>Neuron</i> , <b>2011</b> , 69, 572-83	13.9	335
120	Attention samples stimuli rhythmically. <i>Current Biology</i> , <b>2012</b> , 22, 1000-4	6.3	332
119	The effects of visual stimulation and selective visual attention on rhythmic neuronal synchronization in macaque area V4. <i>Journal of Neuroscience</i> , <b>2008</b> , 28, 4823-35	6.6	327
118	Buildup of choice-predictive activity in human motor cortex during perceptual decision making. <i>Current Biology</i> , <b>2009</b> , 19, 1581-5	6.3	322
117	A MEMS-based flexible multichannel ECoG-electrode array. <i>Journal of Neural Engineering</i> , <b>2009</b> , 6, 036003	3	291
116	Rapid feature selective neuronal synchronization through correlated latency shifting. <i>Nature Neuroscience</i> , <b>2001</b> , 4, 194-200	25.5	280
115	The pairwise phase consistency: a bias-free measure of rhythmic neuronal synchronization. <i>NeuroImage</i> , <b>2010</b> , 51, 112-22	7.9	266
114	Oscillatory neuronal synchronization in primary visual cortex as a correlate of stimulus selection. <i>Journal of Neuroscience</i> , <b>2002</b> , 22, 3739-54	6.6	236
113	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> , <b>2010</b> , 107, 361-5	11.5	201
112	Nonparametric statistical testing of coherence differences. <i>Journal of Neuroscience Methods</i> , <b>2007</b> , 163, 161-75	3	191
111	Is synchronized neuronal gamma activity relevant for selective attention?. <i>Brain Research Reviews</i> , <b>2003</b> , 42, 265-72		188
110	Robust gamma coherence between macaque V1 and V2 by dynamic frequency matching. <i>Neuron</i> , <b>2013</b> , 78, 523-36	13.9	180
109	A microsaccadic rhythm modulates gamma-band synchronization and behavior. <i>Journal of Neuroscience</i> , <b>2009</b> , 29, 9471-80	6.6	169

108	Investigating large-scale brain dynamics using field potential recordings: analysis and interpretation. <i>Nature Neuroscience</i> , <b>2018</b> , 21, 903-919	25.5	155
107	Distributed Attention Is Implemented through Theta-Rhythmic Gamma Modulation. <i>Current Biology</i> , <b>2015</b> , 25, 2332-7	6.3	150
106	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> , <b>2013</b> , 110, 13144-9	11.5	138
105	Gamma-band synchronization in the macaque hippocampus and memory formation. <i>Journal of Neuroscience</i> , <b>2009</b> , 29, 12521-31	6.6	135
104	Communication through coherence with inter-areal delays. <i>Current Opinion in Neurobiology</i> , <b>2015</b> , 31, 173-80	7.6	134
103	Reduced occipital alpha power indexes enhanced excitability rather than improved visual perception. <i>Journal of Neuroscience</i> , <b>2013</b> , 33, 3212-20	6.6	133
102	Adding dynamics to the Human Connectome Project with MEG. <i>NeuroImage</i> , <b>2013</b> , 80, 190-201	7.9	132
101	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> , <b>2007</b> , 17, 2364-74	5.1	131
100	Attentional modulation of cell-class-specific gamma-band synchronization in awake monkey area v4. <i>Neuron</i> , <b>2013</b> , 80, 1077-89	13.9	129
99	Gamma-phase shifting in awake monkey visual cortex. <i>Journal of Neuroscience</i> , <b>2010</b> , 30, 1250-7	6.6	129
98	Neuronal coherence during selective attentional processing and sensory-motor integration. <i>Journal of Physiology (Paris)</i> , <b>2006</b> , 100, 182-93		111
97	High-frequency activity in human visual cortex is modulated by visual motion strength. <i>Cerebral Cortex</i> , <b>2007</b> , 17, 732-41	5.1	111
96	Population activity in the human dorsal pathway predicts the accuracy of visual motion detection. <i>Journal of Neurophysiology</i> , <b>2007</b> , 98, 345-59	3.2	110
95	Finding gamma. <i>Neuron</i> , <b>2008</b> , 58, 303-5	13.9	105
94	A DCM study of spectral asymmetries in feedforward and feedback connections between visual areas V1 and V4 in the monkey. <i>NeuroImage</i> , <b>2015</b> , 108, 460-75	7.9	92
93	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> , <b>2012</b> , 109, 4302-7	11.5	90
92	Gamma-band activity in human posterior parietal cortex encodes the motor goal during delayed prosaccades and antisaccades. <i>Journal of Neuroscience</i> , <b>2008</b> , 28, 8397-405	6.6	88
91	Magnetoencephalography in twins reveals a strong genetic determination of the peak frequency of visually induced $\beta$ band synchronization. <i>Journal of Neuroscience</i> , <b>2012</b> , 32, 3388-92	6.6	87

90	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> , <b>2014</b> , 111, 3626-31	11.5	83
89	Diverse Phase Relations among Neuronal Rhythms and Their Potential Function. <i>Trends in Neurosciences</i> , <b>2016</b> , 39, 86-99	13.3	81
88	DCM for complex-valued data: cross-spectra, coherence and phase-delays. <i>NeuroImage</i> , <b>2012</b> , 59, 439-557.9		81
87	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> , <b>2018</b> , 115, E5614-E5623	11.5	80
86	Top-Down Beta Enhances Bottom-Up Gamma. <i>Journal of Neuroscience</i> , <b>2017</b> , 37, 6698-6711	6.6	78
85	Selective movement preparation is subserved by selective increases in corticomuscular gamma-band coherence. <i>Journal of Neuroscience</i> , <b>2011</b> , 31, 6750-8	6.6	78
84	Imaging the human motor systems beta-band synchronization during isometric contraction. <i>NeuroImage</i> , <b>2008</b> , 41, 437-47	7.9	78
83	Corticospinal beta-band synchronization entails rhythmic gain modulation. <i>Journal of Neuroscience</i> , <b>2010</b> , 30, 4481-8	6.6	76
82	How to detect the Granger-causal flow direction in the presence of additive noise?. <i>NeuroImage</i> , <b>2015</b> , 108, 301-18	7.9	75
81	Gamma oscillations: precise temporal coordination without a metronome. <i>Trends in Cognitive Sciences</i> , <b>2013</b> , 17, 54-5	14	74
80	Visual cortical gamma-band activity during free viewing of natural images. <i>Cerebral Cortex</i> , <b>2015</b> , 25, 918-26	5.1	73
79	Empirical mode decomposition: a method for analyzing neural data. <i>Neurocomputing</i> , <b>2005</b> , 65-66, 801-807.4		73
78	Visually induced gamma-band activity predicts speed of change detection in humans. <i>NeuroImage</i> , <b>2010</b> , 51, 1162-7	7.9	69
77	Stimulus-induced and state-dependent sustained gamma activity is tightly coupled to the hemodynamic response in humans. <i>Journal of Neuroscience</i> , <b>2009</b> , 29, 13962-70	6.6	69
76	Neuronal synchronization in human posterior parietal cortex during reach planning. <i>Journal of Neuroscience</i> , <b>2010</b> , 30, 1402-12	6.6	65
75	Gamma-Rhythmic Gain Modulation. <i>Neuron</i> , <b>2016</b> , 92, 240-251	13.9	64
74	Assessing neuronal coherence with single-unit, multi-unit, and local field potentials. <i>Neural Computation</i> , <b>2006</b> , 18, 2256-81	2.9	64
73	Empirical mode decomposition of field potentials from macaque V4 in visual spatial attention. <i>Biological Cybernetics</i> , <b>2005</b> , 92, 380-92	2.8	58

72	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> , <b>2016</b> , 134, 122-131	7.9	56
71	Inability to directly detect magnetic field changes associated with neuronal activity. <i>Magnetic Resonance in Medicine</i> , <b>2007</b> , 57, 411-6	4.4	53
70	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> , <b>2016</b> , 221, 1635-51	4	51
69	Recording of brain activity across spatial scales. <i>Current Opinion in Neurobiology</i> , <b>2015</b> , 32, 68-77	7.6	49
68	Areas V1 and V2 show microsaccade-related 3-4-Hz covariation in gamma power and frequency. <i>European Journal of Neuroscience</i> , <b>2016</b> , 43, 1286-96	3.5	49
67	Contrast gain control and horizontal interactions in V1: a DCM study. <i>NeuroImage</i> , <b>2014</b> , 92, 143-55	7.9	48
66	Ocular dominance in extrastriate cortex of strabismic amblyopic cats. <i>Vision Research</i> , <b>2002</b> , 42, 29-39	2.1	47
65	Gamma or no gamma, that is the question. <i>Trends in Cognitive Sciences</i> , <b>2014</b> , 18, 507-9	14	46
64	Gamma Synchronization between V1 and V4 Improves Behavioral Performance. <i>Neuron</i> , <b>2018</b> , 100, 953-963	16.3	44
63	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> , <b>2016</b> , 113, E606-15	11.5	41
62	Cortical layers, rhythms and BOLD signals. <i>NeuroImage</i> , <b>2019</b> , 197, 689-698	7.9	41
61	Reduced BOLD response to periodic visual stimulation. <i>NeuroImage</i> , <b>2004</b> , 21, 236-43	7.9	39
60	Visual stimulus eccentricity affects human gamma peak frequency. <i>NeuroImage</i> , <b>2013</b> , 78, 439-47	7.9	38
59	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> , <b>2011</b> , 54, 1395-405	7.9	35
58	Surface color and predictability determine contextual modulation of V1 firing and gamma oscillations. <i>ELife</i> , <b>2019</b> , 8,	8.9	35
57	The model- and the data-gamma. <i>Neuron</i> , <b>2009</b> , 64, 601-2	13.9	34
56	Inverse mapping the neuronal substrates of face categorizations. <i>Cerebral Cortex</i> , <b>2009</b> , 19, 2428-38	5.1	33
55	Rhythmic neuronal synchronization in visual cortex entails spatial phase relation diversity that is modulated by stimulation and attention. <i>NeuroImage</i> , <b>2013</b> , 74, 99-116	7.9	31

54	InVivo Magnetic Recording of Neuronal Activity. <i>Neuron</i> , <b>2017</b> , 95, 1283-1291.e4	13.9	31
53	Beta oscillation dynamics in extrastriate cortex after removal of primary visual cortex. <i>Journal of Neuroscience</i> , <b>2014</b> , 34, 11857-64	6.6	31
52	When neurons form memories. <i>Trends in Neurosciences</i> , <b>2003</b> , 26, 123-4	13.3	31
51	Biased competition through variations in amplitude of gamma-oscillations. <i>Journal of Computational Neuroscience</i> , <b>2008</b> , 25, 89-107	1.4	30
50	A jackknife approach to quantifying single-trial correlation between covariance-based metrics undefined on a single-trial basis. <i>NeuroImage</i> , <b>2015</b> , 114, 57-70	7.9	28
49	Thalamic coordination of cortical communication. <i>Neuron</i> , <b>2012</b> , 75, 551-2	13.9	24
48	Tactile stimulation accelerates behavioral responses to visual stimuli through enhancement of occipital gamma-band activity. <i>Vision Research</i> , <b>2009</b> , 49, 931-42	2.1	23
47	A Distinct Class of Bursting Neurons with Strong Gamma Synchronization and Stimulus Selectivity in Monkey V1. <i>Neuron</i> , <b>2020</b> , 105, 180-197.e5	13.9	22
46	Both ongoing alpha and visually induced gamma oscillations show reliable diversity in their across-site phase-relations. <i>Journal of Neurophysiology</i> , <b>2015</b> , 113, 1556-63	3.2	21
45	Alpha-band suppression in the visual word form area as a functional bottleneck to consciousness. <i>NeuroImage</i> , <b>2013</b> , 78, 33-45	7.9	19
44	A Statistical Framework to Infer Delay and Direction of Information Flow from Measurements of Complex Systems. <i>Neural Computation</i> , <b>2015</b> , 27, 1555-608	2.9	18
43	Cortical responses to contextual influences in amodal completion. <i>NeuroImage</i> , <b>2006</b> , 32, 1815-25	7.9	17
42	Cortical volume and sex influence visual gamma. <i>NeuroImage</i> , <b>2018</b> , 178, 702-712	7.9	16
41	Entanglement Spectrum of Chiral Fermions on the Torus. <i>Physical Review Letters</i> , <b>2019</b> , 123, 211603	7.4	15
40	Temporal dynamics of attention-modulated neuronal synchronization in macaque V4. <i>Neurocomputing</i> , <b>2003</b> , 52-54, 481-487	5.4	14
39	Human visual cortical gamma reflects natural image structure. <i>NeuroImage</i> , <b>2019</b> , 200, 635-643	7.9	13
38	Conditions of perceptual selection and suppression during interocular rivalry in strabismic and normal cats. <i>Vision Research</i> , <b>2001</b> , 41, 771-83	2.1	11
37	Does time help to understand consciousness?. <i>Consciousness and Cognition</i> , <b>1999</b> , 8, 260-8	2.6	11

36	Spontaneous variability in gamma dynamics described by a linear harmonic oscillator driven by noise		10
35	Hippocampal and neocortical oscillations are tuned to behavioral state in freely-behaving macaques		9
34	Neuronal Oscillations, Coherence, and Consciousness <b>2016</b> , 49-60		8
33	Movement-related coupling of human subthalamic nucleus spikes to cortical gamma. <i>ELife</i> , <b>2020</b> , 9,	8.9	8
32	Visual areas exert feedforward and feedback influences through distinct frequency channels		8
31	Selective Neural Synchrony Suppression as a Forward Gatekeeper to Piecemeal Conscious Perception. <i>Cerebral Cortex</i> , <b>2016</b> , 26, 3010-22	5.1	7
30	Source-reconstruction of the sensorimotor network from resting-state macaque electrocorticography. <i>NeuroImage</i> , <b>2018</b> , 181, 347-358	7.9	7
29	Entanglement and relative entropy of a chiral fermion on the torus. <i>Physical Review D</i> , <b>2019</b> , 100,	4.9	7
28	Response: The birth of a memory. <i>Trends in Neurosciences</i> , <b>2002</b> , 25, 281-282	13.3	6
27	Rhythmic Neuronal Synchronization Subserves Selective Attentional Processing. <i>Research and Perspectives in Neurosciences</i> , <b>2011</b> , 109-132		5
26	Cortical network mechanisms of response inhibition		5
25	Predictive coding of natural images by V1 activity revealed by self-supervised deep neural networks		5
24	Right inferior frontal gyrus implements motor inhibitory control via beta-band oscillations in humans. <i>ELife</i> , <b>2021</b> , 10,	8.9	5
23	Visual exposure enhances stimulus encoding and persistence in primary cortex		4
22	Cortical gamma-band resonance preferentially transmits coherent input. <i>Cell Reports</i> , <b>2021</b> , 35, 109083	10.6	4
21	Linear distributed source modeling of local field potentials recorded with intra-cortical electrode arrays. <i>PLoS ONE</i> , <b>2017</b> , 12, e0187490	3.7	3
20	Selective Visual Attention Modulates Oscillatory Neuronal Synchronization <b>2005</b> , 520-525		3
19	Two frequency bands contain the most stimulus-related information in visual cortex		3



18	A theta rhythm in macaque visual cortex and its attentional modulation		3
17	Magnetoresistive Sensor in Two-Dimension on a 25 $\mu\text{m}$ Thick Silicon Substrate for In Vivo Neuronal Measurements. <i>ACS Sensors</i> , <b>2020</b> , 5, 3493-3500	9.2	3
16	Brain rhythms define distinct interaction networks with differential dependence on anatomy. <i>Neuron</i> , <b>2021</b> , 109, 3862-3878.e5	13.9	2
15	Top-down beta enhances bottom-up gamma		2
14	Stimulus-specific plasticity of macaque V1 spike rates and gamma		2
13	Cortico-basal-ganglia communication: Temporally structured activity for selective motor control		2
12	A distinct class of bursting neurons with strong gamma synchronization and stimulus selectivity in monkey V1		2
11	Stimulus-specific plasticity in human visual gamma-band activity and functional connectivity		1
10	Gamma synchronization between V1 and V4 improves behavioral performance		1
9	Surface color and predictability determine contextual modulation of V1 firing and gamma oscillations		1
8	Gamma-band resonance of visual cortex to optogenetic stimulation		1
7	Visual Neuroscience Methods for Marmosets: Efficient Receptive Field Mapping and Head-Free Eye Tracking. <i>ENeuro</i> , <b>2021</b> , 8,	3.9	1
6	Stimulus-specific plasticity in human visual gamma-band activity and functional connectivity. <i>ELife</i> , <b>2021</b> , 10,	8.9	1
5	Stimulus-specific plasticity of macaque V1 spike rates and gamma. <i>Cell Reports</i> , <b>2021</b> , 37, 110086	10.6	0
4	Spontaneous variability in gamma dynamics described by a damped harmonic oscillator driven by noise.. <i>Nature Communications</i> , <b>2022</b> , 13, 2019	17.4	0
3	What to Do If N Is Two?. <i>Journal of Cognitive Neuroscience</i> , <b>2022</b> , 1-5	3.1	0
2	Finite speed heat transport in a quantum spin chain after quenched local cooling. <i>Journal of Physics A: Mathematical and Theoretical</i> , <b>2017</b> , 50, 145302		2
1	Hemispheres in harmony. <i>Neuron</i> , <b>2021</b> , 109, 916-917	13.9	

