

Helmut Laufs

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/7195664/helmut-laufs-publications-by-year.pdf>

Version: 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

112
papers

8,339
citations

47
h-index

91
g-index

133
ext. papers

9,888
ext. citations

6
avg, IF

6.14
L-index

#	Paper	IF	Citations
112	Decoding brain states on the intrinsic manifold of human brain dynamics across wakefulness and sleep. <i>Communications Biology</i> , 2021 , 4, 854	6.7	4
111	Signature of consciousness in brain-wide synchronization patterns of monkey and human fMRI signals. <i>NeuroImage</i> , 2021 , 226, 117470	7.9	14
110	EEG microstate periodicity explained by rotating phase patterns of resting-state alpha oscillations. <i>NeuroImage</i> , 2021 , 224, 117372	7.9	5
109	Noise-driven multistability vs deterministic chaos in phenomenological semi-empirical models of whole-brain activity. <i>Chaos</i> , 2021 , 31, 023127	3.3	4
108	Perturbations in dynamical models of whole-brain activity dissociate between the level and stability of consciousness. <i>PLoS Computational Biology</i> , 2021 , 17, e1009139	5	8
107	Nonequilibrium brain dynamics as a signature of consciousness. <i>Physical Review E</i> , 2021 , 104, 014411	2.4	2
106	Unconsciousness reconfigures modular brain network dynamics. <i>Chaos</i> , 2021 , 31, 093117	3.3	1
105	Capturing the non-stationarity of whole-brain dynamics underlying human brain states. <i>NeuroImage</i> , 2021 , 244, 118551	7.9	3
104	Connectivity dynamics from wakefulness to sleep. <i>NeuroImage</i> , 2020 , 220, 117047	7.9	13
103	Data augmentation based on dynamical systems for the classification of brain states. <i>Chaos, Solitons and Fractals</i> , 2020 , 139, 110069	9.3	4
102	Magnetic Measurement of Electrically Evoked Muscle Responses With Optically Pumped Magnetometers. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2020 , 28, 756-765	4.8	7
101	Signal Modeling and Simulation of Temporal Dispersion and Conduction Block in Motor Nerves. <i>IEEE Transactions on Biomedical Engineering</i> , 2020 , 67, 2094-2102	5	1
100	Generative Embeddings of Brain Collective Dynamics Using Variational Autoencoders. <i>Physical Review Letters</i> , 2020 , 125, 238101	7.4	5
99	Modeling regional changes in dynamic stability during sleep and wakefulness. <i>NeuroImage</i> , 2020 , 215, 116833	7.9	20
98	Awakening: Predicting external stimulation to force transitions between different brain states. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 18088-18097	11.5	65
97	The avalanche-like behaviour of large-scale haemodynamic activity from wakefulness to deep sleep. <i>Journal of the Royal Society Interface</i> , 2019 , 16, 20190262	4.1	6
96	EEG-correlated fMRI of human alpha (de-)synchronization. <i>Clinical Neurophysiology</i> , 2019 , 130, 1375-1384	4.3	5

95	Low-Frequency Oscillations Code Speech during Verbal Working Memory. <i>Journal of Neuroscience</i> , 2019 , 39, 6498-6512	6.6	9
94	Discovery of key whole-brain transitions and dynamics during human wakefulness and non-REM sleep. <i>Nature Communications</i> , 2019 , 10, 1035	17.4	72
93	Human non-REM sleep and the mean global BOLD signal. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2019 , 39, 2210-2222	7.3	12
92	Mutual information identifies spurious Hurst phenomena in resting state EEG and fMRI data. <i>Physical Review E</i> , 2018 , 97, 022415	2.4	14
91	A combinatorial framework to quantify peak/pit asymmetries in complex dynamics. <i>Scientific Reports</i> , 2018 , 8, 3557	4.9	11
90	Aufgaben und Struktur moderner Epilepsiezentren in Deutschland. <i>Aktuelle Neurologie</i> , 2018 , 45, 513-533		3
89	Advanced CT for diagnosis of seizure-related stroke mimics. <i>European Radiology</i> , 2018 , 28, 1791-1800	8	19
88	Occupation-Associated Fatal Limbic Encephalitis Caused by Variegated Squirrel Bornavirus 1, Germany, 2013. <i>Emerging Infectious Diseases</i> , 2018 , 24, 978-987	10.2	23
87	Information-Theoretical Analysis of EEG Microstate Sequences in Python. <i>Frontiers in Neuroinformatics</i> , 2018 , 12, 30	3.9	4
86	Spatio-Temporal Dynamics of Intrinsic Networks in Functional Magnetic Imaging Data Using Recurrent Neural Networks. <i>Frontiers in Neuroscience</i> , 2018 , 12, 600	5.1	8
85	Perturbation of whole-brain dynamics in silico reveals mechanistic differences between brain states. <i>NeuroImage</i> , 2018 , 169, 46-56	7.9	41
84	Magnetoneurography of an Electrically Stimulated Arm Nerve. <i>Current Directions in Biomedical Engineering</i> , 2018 , 4, 363-366	0.5	4
83	EEG Microstate Sequences From Different Clustering Algorithms Are Information-Theoretically Invariant. <i>Frontiers in Computational Neuroscience</i> , 2018 , 12, 70	3.5	16
82	Mapping visual dominance in human sleep. <i>NeuroImage</i> , 2017 , 150, 250-261	7.9	7
81	Resting-state fMRI in sleeping infants more closely resembles adult sleep than adult wakefulness. <i>PLoS ONE</i> , 2017 , 12, e0188122	3.7	28
80	Decoding Pedophilia: Increased Anterior Insula Response to Infant Animal Pictures. <i>Frontiers in Human Neuroscience</i> , 2017 , 11, 645	3.3	6
79	On wakefulness fluctuations as a source of BOLD functional connectivity dynamics. <i>Scientific Reports</i> , 2017 , 7, 5908	4.9	53
78	Increased Stability and Breakdown of Brain Effective Connectivity During Slow-Wave Sleep: Mechanistic Insights from Whole-Brain Computational Modelling. <i>Scientific Reports</i> , 2017 , 7, 4634	4.9	48

77	Information-theoretical analysis of resting state EEG microstate sequences - non-Markovianity, non-stationarity and periodicities. <i>NeuroImage</i> , 2017 , 158, 99-111	7.9	36
76	Non-linear Relationship between BOLD Activation and Amplitude of Beta Oscillations in the Supplementary Motor Area during Rhythmic Finger Tapping and Internal Timing. <i>Frontiers in Human Neuroscience</i> , 2017 , 11, 582	3.3	9
75	Novel Intrinsic Ignition Method Measuring Local-Global Integration Characterizes Wakefulness and Deep Sleep. <i>ENeuro</i> , 2017 , 4,	3.9	27
74	On the Stability of BOLD fMRI Correlations. <i>Cerebral Cortex</i> , 2017 , 27, 4719-4732	5.1	274
73	Human cortical-hippocampal dialogue in wake and slow-wave sleep. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, E6868-E6876	11.5	63
72	Large-scale signatures of unconsciousness are consistent with a departure from critical dynamics. <i>Journal of the Royal Society Interface</i> , 2016 , 13, 20151027	4.1	100
71	Deep sleep divides the cortex into opposite modes of anatomical-functional coupling. <i>Brain Structure and Function</i> , 2016 , 221, 4221-4234	4	33
70	The brain functional connectome is robustly altered by lack of sleep. <i>NeuroImage</i> , 2016 , 127, 324-332	7.9	81
69	The Voxel-Wise Functional Connectome Can Be Efficiently Derived from Co-activations in a Sparse Spatio-Temporal Point-Process. <i>Frontiers in Neuroscience</i> , 2016 , 10, 381	5.1	40
68	Progression to deep sleep is characterized by changes to BOLD dynamics in sensory cortices. <i>NeuroImage</i> , 2016 , 130, 293-305	7.9	14
67	Increased Global Functional Connectivity Correlates with LSD-Induced Ego Dissolution. <i>Current Biology</i> , 2016 , 26, 1043-50	6.3	237
66	Hirnfunktionelle korrelate typischer Muster des Klinischen Routine-EEGs. <i>Klinische Neurophysiologie</i> , 2016 , 47, 92-99	0.2	
65	Analytical and empirical fluctuation functions of the EEG microstate random walk - Short-range vs. long-range correlations. <i>NeuroImage</i> , 2016 , 141, 442-451	7.9	17
64	Narcoleptic Patients Show Fragmented EEG-Microstructure During Early NREM Sleep. <i>Brain Topography</i> , 2015 , 28, 619-35	4.3	19
63	A stochastic model for EEG microstate sequence analysis. <i>NeuroImage</i> , 2015 , 104, 199-208	7.9	35
62	Multimodal imaging of dynamic functional connectivity. <i>Frontiers in Neurology</i> , 2015 , 6, 10	4.1	38
61	Propagated infra-slow intrinsic brain activity reorganizes across wake and slow wave sleep. <i>ELife</i> , 2015 , 4,	8.9	69
60	Classification of EEG abnormalities in partial epilepsy with simultaneous EEG-fMRI recordings. <i>NeuroImage</i> , 2014 , 99, 461-76	7.9	23

59	Decoding wakefulness levels from typical fMRI resting-state data reveals reliable drifts between wakefulness and sleep. <i>Neuron</i> , 2014 , 82, 695-708	13.9	408
58	Working memory performance of early MS patients correlates inversely with modularity increases in resting state functional connectivity networks. <i>NeuroImage</i> , 2014 , 94, 385-395	7.9	82
57	Altered fMRI connectivity dynamics in temporal lobe epilepsy might explain seizure semiology. <i>Frontiers in Neurology</i> , 2014 , 5, 175	4.1	39
56	Large-scale brain functional modularity is reflected in slow electroencephalographic rhythms across the human non-rapid eye movement sleep cycle. <i>NeuroImage</i> , 2013 , 70, 327-39	7.9	76
55	Breakdown of long-range temporal dependence in default mode and attention networks during deep sleep. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 15419-24	11.5	141
54	Sleep neuroimaging and models of consciousness. <i>Frontiers in Psychology</i> , 2013 , 4, 256	3.4	27
53	To wake or not to wake? The two-sided nature of the human K-complex. <i>NeuroImage</i> , 2012 , 59, 1631-8	7.9	87
52	A personalized history of EEG-fMRI integration. <i>NeuroImage</i> , 2012 , 62, 1056-67	7.9	83
51	EEG microstates of wakefulness and NREM sleep. <i>NeuroImage</i> , 2012 , 62, 2129-39	7.9	125
50	Automatic sleep staging using fMRI functional connectivity data. <i>NeuroImage</i> , 2012 , 63, 63-72	7.9	115
49	Simultaneous electroencephalography-functional MRI at 3 T: an analysis of safety risks imposed by performing anatomical reference scans with the EEG equipment in place. <i>Journal of Magnetic Resonance Imaging</i> , 2012 , 35, 561-71	5.6	31
48	Functional imaging of seizures and epilepsy: evolution from zones to networks. <i>Current Opinion in Neurology</i> , 2012 , 25, 194-200	7.1	115
47	Dynamic BOLD functional connectivity in humans and its electrophysiological correlates. <i>Frontiers in Human Neuroscience</i> , 2012 , 6, 339	3.3	197
46	Polysomnographie während funktioneller Magnetresonanztomographie. <i>Neurophysiologie-Labor</i> , 2011 , 33, 70-76	0.1	
45	Epileptic networks in focal cortical dysplasia revealed using electroencephalography-functional magnetic resonance imaging. <i>Annals of Neurology</i> , 2011 , 70, 822-37	9.4	105
44	Die Darstellung gesunder und pathologischer Hirnzustände mittels EEG-kombinierter funktioneller Kernspintomografie (EEG-fMRT). <i>Klinische Neurophysiologie</i> , 2011 , 42, 183-193	0.2	1
43	Converging PET and fMRI evidence for a common area involved in human focal epilepsies. <i>Neurology</i> , 2011 , 77, 904-10	6.5	85
42	EEG correlated functional MRI and postoperative outcome in focal epilepsy. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , 2010 , 81, 922-7	5.5	109

41	Multimodal analysis of resting state cortical activity: what does EEG add to our knowledge of resting state BOLD networks?. <i>NeuroImage</i> , 2010 , 52, 1171-2	7.9	16
40	Imaging haemodynamic changes related to seizures: comparison of EEG-based general linear model, independent component analysis of fMRI and intracranial EEG. <i>NeuroImage</i> , 2010 , 53, 196-205	7.9	64
39	Causal hierarchy within the thalamo-cortical network in spike and wave discharges. <i>PLoS ONE</i> , 2009 , 4, e6475	3.7	116
38	EEG-fMRI Information Fusion: Biophysics and Data Analysis 2009 , 511-526		5
37	Brain Rhythms 2009 , 263-277		
36	BOLD and perfusion changes during epileptic generalised spike wave activity. <i>NeuroImage</i> , 2008 , 39, 608-18	7.9	88
35	Recent advances in recording electrophysiological data simultaneously with magnetic resonance imaging. <i>NeuroImage</i> , 2008 , 40, 515-528	7.9	152
34	Combined EEG-fMRI and tractography to visualise propagation of epileptic activity. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , 2008 , 79, 594-7	5.5	49
33	Noncanonical spike-related BOLD responses in focal epilepsy. <i>Human Brain Mapping</i> , 2008 , 29, 329-45	5.9	79
32	Endogenous brain oscillations and related networks detected by surface EEG-combined fMRI. <i>Human Brain Mapping</i> , 2008 , 29, 762-9	5.9	156
31	An investigation of the relationship between BOLD and perfusion signal changes during epileptic generalised spike wave activity. <i>Magnetic Resonance Imaging</i> , 2008 , 26, 870-3	3.3	26
30	EEG-fMRI in children with pharmaco-resistant focal epilepsy. <i>Epilepsia</i> , 2007 , 48, 385-9	6.4	48
29	Modelling large motion events in fMRI studies of patients with epilepsy. <i>Magnetic Resonance Imaging</i> , 2007 , 25, 894-901	3.3	184
28	Temporal lobe interictal epileptic discharges affect cerebral activity in "default mode" brain regions. <i>Human Brain Mapping</i> , 2007 , 28, 1023-32	5.9	237
27	Brain activation and hypothalamic functional connectivity during human non-rapid eye movement sleep: an EEG/fMRI study—its limitations and an alternative approach. <i>Brain</i> , 2007 , 130, e75; author reply e76	11.2	57
26	Electroencephalography/functional MRI in human epilepsy: what it currently can and cannot do. <i>Current Opinion in Neurology</i> , 2007 , 20, 417-23	7.1	94
25	Impact of interictal epileptic activity on normal brain function in epileptic encephalopathy: an electroencephalography-functional magnetic resonance imaging study. <i>Epilepsy and Behavior</i> , 2007 , 11, 460-5	3.2	25
24	Endogenous cortical rhythms determine cerebral specialization for speech perception and production. <i>Neuron</i> , 2007 , 56, 1127-34	13.9	324

23	Independent component analysis of interictal fMRI in focal epilepsy: comparison with general linear model-based EEG-correlated fMRI. <i>NeuroImage</i> , 2007 , 38, 488-500	7.9	75
22	Analysis of EEG-fMRI data in focal epilepsy based on automated spike classification and Signal Space Projection. <i>NeuroImage</i> , 2006 , 31, 1015-24	7.9	40
21	EEG-fMRI of idiopathic and secondarily generalized epilepsies. <i>NeuroImage</i> , 2006 , 31, 1700-10	7.9	227
20	Where the BOLD signal goes when alpha EEG leaves. <i>NeuroImage</i> , 2006 , 31, 1408-18	7.9	298
19	Conjugate eye deviation in acute stroke: incidence, hemispheric asymmetry, and lesion pattern. <i>Stroke</i> , 2006 , 37, 2726-32	6.7	39
18	Linking generalized spike-and-wave discharges and resting state brain activity by using EEG/fMRI in a patient with absence seizures. <i>Epilepsia</i> , 2006 , 47, 444-8	6.4	153
17	EEG-fMRI mapping of asymmetrical delta activity in a patient with refractory epilepsy is concordant with the epileptogenic region determined by intracranial EEG. <i>Magnetic Resonance Imaging</i> , 2006 , 24, 367-71	3.3	35
16	fMRI temporal clustering analysis in patients with frequent interictal epileptiform discharges: comparison with EEG-driven analysis. <i>NeuroImage</i> , 2005 , 26, 309-16	7.9	28
15	The sensory cortical representation of the human penis: revisiting somatotopy in the male homunculus. <i>Journal of Neuroscience</i> , 2005 , 25, 5984-7	6.6	106
14	Hemi-spinal cord infarction due to vertebral artery dissection in congenital afibrinogenemia. <i>Neurology</i> , 2004 , 63, 1522-3	6.5	19
13	Electroencephalographic signatures of attentional and cognitive default modes in spontaneous brain activity fluctuations at rest. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003 , 100, 11053-8	11.5	773
12	EEG-correlated fMRI of human alpha activity. <i>NeuroImage</i> , 2003 , 19, 1463-76	7.9	769
11	Intracellular survival of <i>Leishmania major</i> in neutrophil granulocytes after uptake in the absence of heat-labile serum factors. <i>Infection and Immunity</i> , 2002 , 70, 826-35	3.7	127
10	Inhibition of the spontaneous apoptosis of neutrophil granulocytes by the intracellular parasite <i>Leishmania major</i> . <i>Journal of Immunology</i> , 2002 , 169, 898-905	5.3	198
9	<i>Leishmania</i> promastigotes release a granulocyte chemotactic factor and induce interleukin-8 release but inhibit gamma interferon-inducible protein 10 production by neutrophil granulocytes. <i>Infection and Immunity</i> , 2002 , 70, 4177-84	3.7	100
8	Giant cell myocarditis in a 12-year-old girl with common variable immunodeficiency. <i>Mayo Clinic Proceedings</i> , 2002 , 77, 92-6	6.4	17
7	Chemokines, natural killer cells and granulocytes in the early course of <i>Leishmania major</i> infection in mice. <i>Medical Microbiology and Immunology</i> , 2001 , 190, 73-6	4	105
6	Neuroimaging of wakefulness91-95		

5 Methodology of combined EEG and fMRI 82-90

4 Unifying turbulent dynamics framework distinguishes different brain states

2

3 Connectivity dynamics from wakefulness to sleep

2

2 Perturbations in dynamical models of whole-brain activity dissociate between the level and stability of consciousness

4

1 BOLD signatures of sleep

1