

Peter Herman

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8243423/publications.pdf>

Version: 2024-02-01

58
papers

2,186
citations

201575

27
h-index

243529

44
g-index

62
all docs

62
docs citations

62
times ranked

2714
citing authors

#	ARTICLE	IF	CITATIONS
1	Remote Effects of Focal Hippocampal Seizures on the Rat Neocortex. <i>Journal of Neuroscience</i> , 2008, 28, 9066-9081.	1.7	133
2	Evaluating the gray and white matter energy budgets of human brain function. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2018, 38, 1339-1353.	2.4	131
3	Energetics of neuronal signaling and fMRI activity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 20546-20551.	3.3	121
4	Simultaneous cortex-wide fluorescence Ca ²⁺ imaging and whole-brain fMRI. <i>Nature Methods</i> , 2020, 17, 1262-1271.	9.0	111
5	Decreased Subcortical Cholinergic Arousal in Focal Seizures. <i>Neuron</i> , 2015, 85, 561-572.	3.8	99
6	Amygdala hyper-connectivity in a mouse model of unpredictable early life stress. <i>Translational Psychiatry</i> , 2018, 8, 49.	2.4	87
7	Lactate preserves neuronal metabolism and function following antecedent recurrent hypoglycemia. <i>Journal of Clinical Investigation</i> , 2013, 123, 1988-1998.	3.9	80
8	Uniform distributions of glucose oxidation and oxygen extraction in gray matter of normal human brain: No evidence of regional differences of aerobic glycolysis. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2016, 36, 903-916.	2.4	74
9	The Whole-Brain "Global" Signal from Resting State fMRI as a Potential Biomarker of Quantitative State Changes in Glucose Metabolism. <i>Brain Connectivity</i> , 2016, 6, 435-447.	0.8	70
10	Relative Changes in Cerebral Blood Flow and Neuronal Activity in Local Microdomains during Generalized Seizures. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2004, 24, 1057-1068.	2.4	64
11	Neural Progenitor Cells Regulate Capillary Blood Flow in the Postnatal Subventricular Zone. <i>Journal of Neuroscience</i> , 2012, 32, 16435-16448.	1.7	64
12	Oxidative Neuroenergetics in Event-Related Paradigms. <i>Journal of Neuroscience</i> , 2009, 29, 1707-1718.	1.7	62
13	Quantitative basis for neuroimaging of cortical laminae with calibrated functional MRI. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 15115-15120.	3.3	57
14	Pitfalls in fractal time series analysis: fMRI BOLD as an exemplary case. <i>Frontiers in Physiology</i> , 2012, 3, 417.	1.3	52
15	Decomposing Multifractal Crossovers. <i>Frontiers in Physiology</i> , 2017, 8, 533.	1.3	51
16	Fractal analysis of spontaneous fluctuations of the BOLD signal in rat brain. <i>NeuroImage</i> , 2011, 58, 1060-1069.	2.1	48
17	Frequency-dependent tactile responses in rat brain measured by functional MRI. <i>NMR in Biomedicine</i> , 2008, 21, 410-416.	1.6	45
18	A Multiparametric Assessment of Oxygen Efflux from the Brain. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2006, 26, 79-91.	2.4	43

#	ARTICLE	IF	CITATIONS
19	Fractal Branching Pattern in the Pial Vasculature in the Cat. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2001, 21, 741-753.	2.4	41
20	Mitochondrial Calcium Uptake Capacity Modulates Neocortical Excitability. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2013, 33, 1115-1126.	2.4	38
21	Cerebral oxygen demand for short-lived and steady-state events. <i>Journal of Neurochemistry</i> , 2009, 109, 73-79.	2.1	35
22	Fractal and Noisy CBV Dynamics in Humans: Influence of Age and Gender. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2006, 26, 891-898.	2.4	32
23	Neurovascular and neurometabolic couplings in dynamic calibrated fMRI: transient oxidative neuroenergetics for block-design and event-related paradigms. <i>Frontiers in Neuroenergetics</i> , 2010, 2, .	5.3	31
24	Towards longitudinal mapping of extracellular pH in gliomas. <i>NMR in Biomedicine</i> , 2016, 29, 1364-1372.	1.6	31
25	Mathematical model for the estimation of hemodynamic and oxygenation variables by tissue spectroscopy. <i>Journal of Theoretical Biology</i> , 2006, 241, 262-275.	0.8	30
26	DYNAMIC Multi-coil TEchnique (DYNAMITE) shimming of the rat brain at 11.7%T. <i>NMR in Biomedicine</i> , 2014, 27, 897-906.	1.6	30
27	Multimodal Measurements of Blood Plasma and Red Blood Cell Volumes during Functional Brain Activation. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2009, 29, 19-24.	2.4	29
28	Functional MRI and neural responses in a rat model of Alzheimer's disease. <i>NeuroImage</i> , 2013, 79, 404-411.	2.1	29
29	Analysis of Time and Space Invariance of BOLD Responses in the Rat Visual System. <i>Cerebral Cortex</i> , 2013, 23, 210-222.	1.6	28
30	Impact of Healthy Aging on Multifractal Hemodynamic Fluctuations in the Human Prefrontal Cortex. <i>Frontiers in Physiology</i> , 2018, 9, 1072.	1.3	28
31	S Phase Entry of Neural Progenitor Cells Correlates with Increased Blood Flow in the Young Subventricular Zone. <i>PLoS ONE</i> , 2012, 7, e31960.	1.1	26
32	Brain region and activity-dependent properties of M for calibrated fMRI. <i>NeuroImage</i> , 2016, 125, 848-856.	2.1	26
33	Tactile and Non-tactile Sensory Paradigms for fMRI and Neurophysiologic Studies in Rodents. <i>Methods in Molecular Biology</i> , 2009, 489, 213-242.	0.4	26
34	Mitochondrial Functional State Impacts Spontaneous Neocortical Activity and Resting State fMRI. <i>PLoS ONE</i> , 2013, 8, e63317.	1.1	24
35	Metabolic demands of neural-hemodynamic associated and disassociated areas in brain. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2016, 36, 1695-1707.	2.4	24
36	Quantitative \hat{I}^2 mapping for calibrated fMRI. <i>NeuroImage</i> , 2016, 126, 219-228.	2.1	24

#	ARTICLE	IF	CITATIONS
37	A novel approach for selective brain cooling: implications for hypercapnia and seizure activity. <i>Intensive Care Medicine</i> , 2004, 30, 1829-1833.	3.9	22
38	Real-time fractal signal processing in the time domain. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2013, 392, 89-102.	1.2	22
39	Hypofrontality and Posterior Hyperactivity in Early Schizophrenia: Imaging and Behavior in a Preclinical Model. <i>Biological Psychiatry</i> , 2017, 81, 503-513.	0.7	22
40	Nonlinear Analysis of Blood Cell Flux Fluctuations in the Rat Brain Cortex during Stepwise Hypotension Challenge. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2006, 26, 1189-1197.	2.4	21
41	Comparison of glomerular activity patterns by fMRI and wide-field calcium imaging: Implications for principles underlying odor mapping. <i>NeuroImage</i> , 2016, 126, 208-218.	2.1	19
42	Orthonasal versus retronasal glomerular activity in rat olfactory bulb by fMRI. <i>NeuroImage</i> , 2020, 212, 116664.	2.1	19
43	Fractal Analysis of Spontaneous Fluctuations in Human Cerebral Hemoglobin Content and its Oxygenation Level Recorded by NIRS. <i>Advances in Experimental Medicine and Biology</i> , 1999, 471, 49-55.	0.8	18
44	Fractal Characterization of Complexity in Dynamic Signals: Application to Cerebral Hemodynamics. <i>Methods in Molecular Biology</i> , 2009, 489, 23-40.	0.4	17
45	Role of mitochondrial calcium uptake homeostasis in resting state fMRI brain networks. <i>NMR in Biomedicine</i> , 2015, 28, 1579-1588.	1.6	14
46	Hypersensitivity to Thromboxane Receptor Mediated Cerebral Vasomotion and CBF Oscillations during Acute NO-Deficiency in Rats. <i>PLoS ONE</i> , 2010, 5, e14477.	1.1	13
47	Role of Ongoing, Intrinsic Activity of Neuronal Populations for Quantitative Neuroimaging of Functional Magnetic Resonance Imaging-Based Networks. <i>Brain Connectivity</i> , 2011, 1, 185-193.	0.8	12
48	High-resolution relaxometry-based calibrated fMRI in murine brain: Metabolic differences between awake and anesthetized states. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2022, 42, 811-825.	2.4	11
49	Supraspinal Sensorimotor and Pain-Related Reorganization after a Hemicontusion Rat Cervical Spinal Cord Injury. <i>Journal of Neurotrauma</i> , 2021, 38, 3393-3405.	1.7	8
50	Impact of Global Mean Normalization on Regional Glucose Metabolism in the Human Brain. <i>Neural Plasticity</i> , 2018, 2018, 1-16.	1.0	7
51	Aerobic glycolysis imaging of epileptic foci during the inter-ictal period. <i>EBioMedicine</i> , 2022, 79, 104004.	2.7	7
52	Spontaneous activity forms a foundation for odor-evoked activation maps in the rat olfactory bulb. <i>NeuroImage</i> , 2018, 172, 586-596.	2.1	6
53	Influence of the heme-oxygenase pathway on cerebrocortical blood flow. <i>NeuroReport</i> , 2007, 18, 1193-1197.	0.6	5
54	Association Between Magnetic Resonance Imaging-Based Spinal Morphometry and Sensorimotor Behavior in a Hemicontusion Model of Incomplete Cervical Spinal Cord Injury in Rats. <i>Brain Connectivity</i> , 2020, 10, 479-489.	0.8	5

#	ARTICLE	IF	CITATIONS
55	Thalamic activations in rat brain by fMRI during tactile (forepaw, whisker) and non-tactile (visual,) Tj ETQq1 1 0.784314 rgBT /Overloc	1.1	3
56	Model-based evaluation of the microhemodynamic effects of PEGylated HBOC molecules in the rat brain cortex: a laser speckle imaging study. Biomedical Optics Express, 2020, 11, 4150.	1.5	2
57	Fractal correlation structure in fMRI data of rat brain. Journal of Cerebral Blood Flow and Metabolism, 2005, 25, S379-S379.	2.4	1
58	CMR02 Mapping by Calibrated fMRI. Series in Medical Physics and Biomedical Engineering, 2013, , 85-109.	0.1	1