Patrick J Drew

List of Publications by Year
in descending order

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45	4,572	147566	243296
papers	citations	31 h-index	44 g-index

65	65	65	4681
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Correlations of Neuronal and Microvascular Densities in Murine Cortex Revealed by Direct Counting and Colocalization of Nuclei and Vessels. Journal of Neuroscience, 2009, 29, 14553-14570.	1.7	500
2	Cascade Models of Synaptically Stored Memories. Neuron, 2005, 45, 599-611.	3.8	430
3	Two-Photon Microscopy as a Tool to Study Blood Flow and Neurovascular Coupling in the Rodent Brain. Journal of Cerebral Blood Flow and Metabolism, 2012, 32, 1277-1309.	2.4	405
4	Chronic optical access through a polished and reinforced thinned skull. Nature Methods, 2010, 7, 981-984.	9.0	382
5	Fluctuating and sensory-induced vasodynamics in rodent cortex extend arteriole capacity. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 8473-8478.	3.3	257
6	Texture Coding in the Rat Whisker System: Slip-Stick Versus Differential Resonance. PLoS Biology, 2008, 6, e215.	2.6	202
7	Time to wake up: Studying neurovascular coupling and brain-wide circuit function in the un-anesthetized animal. NeuroImage, 2017, 153, 382-398.	2.1	177
8	Weak correlations between hemodynamic signals and ongoing neural activity during the resting state. Nature Neuroscience, 2017, 20, 1761-1769.	7.1	148
9	Rapid determination of particle velocity from space-time images using the Radon transform. Journal of Computational Neuroscience, 2010, 29, 5-11.	0.6	129
10	Active Dilation of Penetrating Arterioles Restores Red Blood Cell Flux to Penumbral Neocortex after Focal Stroke. Journal of Cerebral Blood Flow and Metabolism, 2009, 29, 738-751.	2.4	125
11	Models and Properties of Power-Law Adaptation in Neural Systems. Journal of Neurophysiology, 2006, 96, 826-833.	0.9	123
12	Ultra-slow Oscillations in fMRI and Resting-State Connectivity: Neuronal and Vascular Contributions and Technical Confounds. Neuron, 2020, 107, 782-804.	3.8	105
13	A Polished and Reinforced Thinned-skull Window for Long-term Imaging of the Mouse Brain. Journal of Visualized Experiments, 2012, , .	0.2	104
14	Extending the effects of spike-timing-dependent plasticity to behavioral timescales. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 8876-8881.	3.3	97
15	Vascular and neural basis of the BOLD signal. Current Opinion in Neurobiology, 2019, 58, 61-69.	2.0	89
16	Anatomical basis and physiological role of cerebrospinal fluid transport through the murine cribriform plate. ELife, 2019, 8, .	2.8	85
17	Neurovascular Coupling and Decoupling in the Cortex during Voluntary Locomotion. Journal of Neuroscience, 2014, 34, 10975-10981.	1.7	81
18	Robust and Fragile Aspects of Cortical Blood Flow in Relation to the Underlying Angioarchitecture. Microcirculation, 2015, 22, 204-218.	1.0	78

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19	A Guide to Delineate the Logic of Neurovascular Signaling in the Brain. Frontiers in Neuroenergetics, 2011, 3, 1.	5.3	71
20	Neurovascular coupling and bilateral connectivity during NREM and REM sleep. ELife, 2020, 9, .	2.8	66
21	Intrinsic Signal Imaging of Deprivation-Induced Contraction of Whisker Representations in Rat Somatosensory Cortex. Cerebral Cortex, 2009, 19, 331-348.	1.6	64
22	Finding coherence in spontaneous oscillations. Nature Neuroscience, 2008, 11, 991-993.	7.1	59
23	Mechanical restriction of intracortical vessel dilation by brain tissue sculpts the hemodynamic response. NeuroImage, 2015, 115, 162-176.	2.1	58
24	Endocannabinoid Signaling Is Required for Development and Critical Period Plasticity of the Whisker Map in Somatosensory Cortex. Neuron, 2009, 64, 537-549.	3.8	57
25	Quantitative separation of arterial and venous cerebral blood volume increases during voluntary locomotion. NeuroImage, 2015, 105, 369-379.	2.1	56
26	Transfer functions linking neural calcium to single voxel functional ultrasound signal. Nature Communications, 2020, 11, 2954.	5.8	55
27	Cerebral oxygenation during locomotion is modulated by respiration. Nature Communications, 2019, 10, 5515.	5.8	54
28	Effects of Voluntary Locomotion and Calcitonin Gene-Related Peptide on the Dynamics of Single Dural Vessels in Awake Mice. Journal of Neuroscience, 2016, 36, 2503-2516.	1.7	47
29	Twitches, Blinks, and Fidgets: Important Generators of Ongoing Neural Activity. Neuroscientist, 2019, 25, 298-313.	2.6	46
30	nNOS-expressing interneurons control basal and behaviorally evoked arterial dilation in somatosensory cortex of mice. ELife, 2020, 9, .	2.8	45
31	Functional hyperemia drives fluid exchange in the paravascular space. Fluids and Barriers of the CNS, 2020, 17, 52.	2.4	42
32	Rude mechanicals in brain haemodynamics: non-neural actors that influence blood flow. Philosophical Transactions of the Royal Society B: Biological Sciences, 2021, 376, 20190635.	1.8	39
33	Model of Song Selectivity and Sequence Generation in Area HVc of the Songbird. Journal of Neurophysiology, 2003, 89, 2697-2706.	0.9	38
34	Brief anesthesia, but not voluntary locomotion, significantly alters cortical temperature. Journal of Neurophysiology, 2015, 114, 309-322.	0.9	38
35	Determination of Vessel Cross-Sectional Area by Thresholding in Radon Space. Journal of Cerebral Blood Flow and Metabolism, 2014, 34, 1180-1187.	2.4	37
36	Pupillary response to chromatic flicker. Experimental Brain Research, 2001, 136, 256-262.	0.7	32

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37	Venous cerebral blood volume increase during voluntary locomotion reflects cardiovascular changes. NeuroImage, 2015, 118, 301-312.	2.1	26
38	The pial vasculature of the mouse develops according to a sensory-independent program. Scientific Reports, 2018, 8, 9860.	1.6	26
39	Spatial and temporal patterns of nitric oxide diffusion and degradation drive emergent cerebrovascular dynamics. PLoS Computational Biology, 2020, 16, e1008069.	1.5	24
40	Two-Photon Imaging of Blood Flow in the Rat Cortex. Cold Spring Harbor Protocols, 2013, 2013, pdb.prot076513.	0.2	18
41	A method for longitudinal, transcranial imaging of blood flow and remodeling of the cerebral vasculature in postnatal mice. Physiological Reports, 2014, 2, e12238.	0.7	18
42	Origins of 1/f-like tissue oxygenation fluctuations in the murine cortex. PLoS Biology, 2021, 19, e3001298.	2.6	15
43	Iliski, a software for robust calculation of transfer functions. PLoS Computational Biology, 2021, 17, e1008614.	1.5	2
44	Modeling temporal combination selective neurons of the songbird. Neurocomputing, 2002, 44-46, 789-794.	3.5	0
45	[P1.15]: CB1 receptor signaling is required for whisker map development and plasticity in rat somatosensory cortex. International Journal of Developmental Neuroscience, 2008, 26, 846-846.	0.7	0