

Fabrice Wallois,, Hdr

List of Publications by Year in descending order

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83
papers

2,293
citations

236925

25
h-index

243625

44
g-index

84
all docs

84
docs citations

84
times ranked

2476
citing authors

#	ARTICLE	IF	CITATIONS
1	Syllabic discrimination in premature human infants prior to complete formation of cortical layers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 4846-4851.	7.1	298
2	A multistage knowledge-based system for EEG seizure detection in newborn infants. <i>Clinical Neurophysiology</i> , 2007, 118, 2781-2797.	1.5	114
3	Usefulness of simultaneous EEG&NIRS recording in language studies. <i>Brain and Language</i> , 2012, 121, 110-123.	1.6	99
4	Mother and Stranger: An Electrophysiological Study of Voice Processing in Newborns. <i>Cerebral Cortex</i> , 2011, 21, 1705-1711.	2.9	98
5	NIRS&measured oxy&and deoxyhemoglobin changes associated with EEG spike&and&wave discharges in children. <i>Epilepsia</i> , 2008, 49, 1871-1880.	5.1	95
6	A neonatal atlas template for spatial normalization of whole-brain magnetic resonance images of newborns: Preliminary results. <i>NeuroImage</i> , 2007, 37, 463-473.	4.2	86
7	High-resolution electroencephalography and source localization in neonates. <i>Human Brain Mapping</i> , 2008, 29, 167-176.	3.6	77
8	EEG-NIRS in epilepsy in children and neonates. <i>Neurophysiologie Clinique</i> , 2010, 40, 281-292.	2.2	67
9	Trigeminal nasal receptors related to respiration and to various stimuli in cats. <i>Respiration Physiology</i> , 1991, 85, 111-125.	2.7	65
10	Does spatiotemporal synchronization of EEG change prior to absence seizures?. <i>Brain Research</i> , 2008, 1188, 207-221.	2.2	65
11	Dynamic changes in quantitative electroencephalogram during continuous performance test in children with attention-deficit/hyperactivity disorder. <i>International Journal of Psychophysiology</i> , 2011, 81, 230-236.	1.0	56
12	Distinct hemispheric specializations for native and non-native languages in one-day-old newborns identified by fNIRS. <i>Neuropsychologia</i> , 2016, 84, 63-69.	1.6	56
13	Neonatal brain resting-state functional connectivity imaging modalities. <i>Photoacoustics</i> , 2018, 10, 1-19.	7.8	56
14	EEG Resting State Functional Connectivity Analysis in Children with Benign Epilepsy with Centrottemporal Spikes. <i>Frontiers in Neuroscience</i> , 2016, 10, 143.	2.8	51
15	Experimental investigation of NIRS spatial sensitivity. <i>Biomedical Optics Express</i> , 2011, 2, 1478.	2.9	45
16	Functional Maps at the Onset of Auditory Inputs in Very Early Preterm Human Neonates. <i>Cerebral Cortex</i> , 2017, 27, bhw103.	2.9	41
17	C-Fos-like immunoreactivity in the cat brainstem evoked by sneeze-inducing air puff stimulation of the nasal mucosa. <i>Brain Research</i> , 1995, 687, 143-154.	2.2	37
18	Back to basics: the neuronal substrates and mechanisms that underlie the electroencephalogram in premature neonates. <i>Neurophysiologie Clinique</i> , 2021, 51, 5-33.	2.2	37

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19	EEG resting state analysis of cortical sources in patients with benign epilepsy with centrotemporal spikes. <i>NeuroImage: Clinical</i> , 2015, 9, 275-282.	2.7	35
20	Functional Brain Dysfunction in Patients with Benign Childhood Epilepsy as Revealed by Graph Theory. <i>PLoS ONE</i> , 2015, 10, e0139228.	2.5	35
21	Effects of uncertainty in head tissue conductivity and complexity on EEG forward modeling in neonates. <i>Human Brain Mapping</i> , 2016, 37, 3604-3622.	3.6	35
22	Vagus nerve stimulation induces changes in respiratory sinus arrhythmia of epileptic children during sleep. <i>Epilepsia</i> , 2009, 50, 2473-2480.	5.1	30
23	Vagus Nerve Stimulation Induces Concomitant Respiratory Alterations and a Decrease in SaO2 in Children. <i>Epilepsia</i> , 2005, 46, 1802-1809.	5.1	29
24	Detection of EEG transients in neonates and older children using a system based on dynamic time-warping template matching and spatial dipole clustering. <i>NeuroImage</i> , 2009, 48, 50-62.	4.2	29
25	NIRS-measured oxy- and deoxyhemoglobin changes associated with EEG spike-and-wave discharges in a genetic model of absence epilepsy: The GAERS. <i>Epilepsia</i> , 2010, 51, 1374-1384.	5.1	27
26	Quantitative investigation of the effect of the extra-cerebral vasculature in diffuse optical imaging: a simulation study. <i>Biomedical Optics Express</i> , 2011, 2, 680.	2.9	27
27	Effect of confounding variables on hemodynamic response function estimation using averaging and deconvolution analysis: An event-related NIRS study. <i>NeuroImage</i> , 2017, 155, 25-49.	4.2	26
28	Haemodynamic changes during seizure-like activity in a neonate: A simultaneous AC EEG-SPIR and high-resolution DC EEG recording. <i>Neurophysiologie Clinique</i> , 2009, 39, 217-227.	2.2	25
29	Trigeminal afferences implied in the triggering or inhibition of sneezing in cats. <i>Neuroscience Letters</i> , 1991, 122, 145-147.	2.1	23
30	Connections between retrotrapezoid nucleus and nucleus tractus solitarii in cat. <i>Neuroscience Letters</i> , 2000, 280, 111-114.	2.1	20
31	Vagus Nerve Stimulation Therapy Induces Changes in Heart Rate of Children during Sleep. <i>Epilepsia</i> , 2007, 48, 923-930.	5.1	20
32	Neurovascular coupling in the developing neonatal brain at rest. <i>Human Brain Mapping</i> , 2020, 41, 503-519.	3.6	19
33	Skull Segmentation and Reconstruction From Newborn CT Images Using Coupled Level Sets. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2016, 20, 563-573.	6.3	18
34	Consequence of intraventricular hemorrhage on neurovascular coupling evoked by speech syllables in preterm neonates. <i>Developmental Cognitive Neuroscience</i> , 2018, 30, 60-69.	4.0	18
35	Effect of hypoxia on the activity of respiratory and non-respiratory modulated retrotrapezoid neurons of the cat. <i>Autonomic Neuroscience: Basic and Clinical</i> , 2000, 86, 70-77.	2.8	17
36	Animal model of the short-term cardiorespiratory effects of intermittent vagus nerve stimulation. <i>Autonomic Neuroscience: Basic and Clinical</i> , 2008, 143, 20-26.	2.8	17

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37	Plasticity of neonatal neuronal networks in very premature infants: Source localization of temporal theta activity, the first endogenous neural biomarker, in temporoparietal areas. <i>Human Brain Mapping</i> , 2017, 38, 2345-2358.	3.6	17
38	Oral stimulations induce apnoea in newborn kittens. <i>NeuroReport</i> , 1993, 4, 903-906.	1.2	16
39	Cardiorespiratory effects induced by vagus nerve stimulation in epileptic children. <i>Medical and Biological Engineering and Computing</i> , 2006, 44, 338-347.	2.8	16
40	Quantitative effect of the neonatal fontanel on synthetic near infrared spectroscopy measurements. <i>Human Brain Mapping</i> , 2013, 34, 878-889.	3.6	16
41	Functional and Structural Network Disorganizations in Typical Epilepsy With Centro-Temporal Spikes and Impact on Cognitive Neurodevelopment. <i>Frontiers in Neurology</i> , 2019, 10, 809.	2.4	16
42	Postnatal development of the anterior ethmoidal nerve in cats: Unmyelinated and myelinated nerve fiber analysis. <i>Neuroscience Letters</i> , 1993, 160, 221-224.	2.1	15
43	Identifying neural drivers of benign childhood epilepsy with centrotemporal spikes. <i>NeuroImage: Clinical</i> , 2018, 17, 739-750.	2.7	15
44	Influence of vagal afferents in the sneeze reflex in cats. <i>Neuroscience Letters</i> , 1994, 177, 79-82.	2.1	14
45	Shedding light on interictal epileptic spikes: An in vivo study using fast optical signal and electrocorticography. <i>Epilepsia</i> , 2017, 58, 608-616.	5.1	14
46	Hemodynamic Changes Associated with Interictal Spikes Induced by Acute Models of Focal Epilepsy in Rats: A Simultaneous Electrocorticography and Near-Infrared Spectroscopy Study. <i>Brain Topography</i> , 2017, 30, 390-407.	1.8	14
47	Impact of prematurity on neurodevelopment. <i>Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn</i> , 2020, 173, 341-375.	1.8	14
48	Nasal air puff stimulations and laryngeal, thoracic and abdominal muscle activities. <i>Respiration Physiology</i> , 1994, 97, 47-62.	2.7	13
49	Automatic segmentation of newborns' skull and fontanel from CT data using model-based variational level set. <i>Signal, Image and Video Processing</i> , 2014, 8, 377-387.	2.7	13
50	Non-invasive, multimodal analysis of cortical activity, blood volume and neurovascular coupling in infantile spasms using EEG-fNIRS monitoring. <i>NeuroImage: Clinical</i> , 2017, 15, 359-366.	2.7	13
51	The intimate relationship between coalescent generators in very premature human newborn brains: Quantifying the coupling of nested endogenous oscillations. <i>Human Brain Mapping</i> , 2020, 41, 4691-4703.	3.6	12
52	A comparative HRP study of the neuronal supply to the inferior and superior nasal meatus in the cat. <i>Neuroscience Letters</i> , 1992, 139, 234-238.	2.1	10
53	Patent ductus arteriosus in preterm infants is associated with cardiac autonomic alteration and predominant parasympathetic stimulation. <i>Early Human Development</i> , 2013, 89, 631-634.	1.8	10
54	Relationship between relative cerebral blood flow, relative cerebral blood volume, and relative cerebral metabolic rate of oxygen in the preterm neonatal brain. <i>NeuroPhotonics</i> , 2017, 4, 021104.	3.3	10

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55	Local and Distant Dysregulation of Synchronization Around Interictal Spikes in BECTS. <i>Frontiers in Neuroscience</i> , 2017, 11, 59.	2.8	10
56	Effect of structural complexities in head modeling on the accuracy of EEG source localization in neonates. <i>Journal of Neural Engineering</i> , 2020, 17, 056004.	3.5	10
57	Performance Analysis of Optically Pumped 4He Magnetometers vs. Conventional SQUIDs: From Adult to Infant Head Models. <i>Sensors</i> , 2022, 22, 3093.	3.8	10
58	Activities of vagal receptors in the different phases of sneeze in cats. <i>Respiration Physiology</i> , 1995, 101, 239-255.	2.7	9
59	Cortical light scattering during interictal epileptic spikes in frontal lobe epilepsy in children: A fast optical signal and electroencephalographic study. <i>Epilepsia</i> , 2017, 58, 2064-2072.	5.1	9
60	Electrophysiological and hemodynamic mismatch responses in rats listening to human speech syllables. <i>PLoS ONE</i> , 2017, 12, e0173801.	2.5	9
61	Neurodevelopment and asymmetry of auditory-related responses to repetitive syllabic stimuli in preterm neonates based on frequency-domain analysis. <i>Scientific Reports</i> , 2019, 9, 10654.	3.3	9
62	Changes in Fos-like immunoreactivity evoked by maturation of the sneeze reflex triggered by nasal air puff stimulation in kittens. <i>Brain Research</i> , 1997, 757, 102-110.	2.2	8
63	Inverse coupling between respiratory and cardiac oscillators in a life-threatening event in a neonate. <i>Autonomic Neuroscience: Basic and Clinical</i> , 2008, 143, 79-82.	2.8	8
64	Noninvasive Technique for the Diagnosis of Patent Ductus Arteriosus in Premature Infants by Analyzing Pulse Wave Phases on Photoplethysmography Signals Measured in the Right Hand and the Left Foot. <i>PLoS ONE</i> , 2014, 9, e98763.	2.5	8
65	Assessment of cerebrovascular development and intraventricular hemorrhages in preterm infants with optical measures of the brain arterial pulse wave. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2019, 39, 466-480.	4.3	8
66	Preterm Modulation of Connectivity by Endogenous Generators: The Theta Temporal Activities in Coalescence with Slow Waves. <i>Brain Topography</i> , 2019, 32, 762-772.	1.8	7
67	A Neonatal Bimodal MR-CT Head Template. <i>PLoS ONE</i> , 2017, 12, e0166112.	2.5	7
68	Exploring the Event-Related Potentials' Time Course of Associative Recognition in Autism. <i>Autism Research</i> , 2020, 13, 1998-2016.	3.8	6
69	Functional and structural correlates of the preterm infant's brain: relating developmental changes of auditory evoked responses to structural maturation. <i>Brain Structure and Function</i> , 2020, 225, 2165-2176.	2.3	6
70	Temporal and Spatial Dynamics of Different Interictal Epileptic Discharges: A Time-Frequency EEG Approach in Pediatric Focal Refractory Epilepsy. <i>Frontiers in Neurology</i> , 2020, 11, 941.	2.4	5
71	What Triggers the Interictal Epileptic Spike? A Multimodal Multiscale Analysis of the Dynamic of Synaptic and Non-synaptic Neuronal and Vascular Compartments Using Electrical and Optical Measurements. <i>Frontiers in Neurology</i> , 2021, 12, 596926.	2.4	4
72	An improved mechanical air puff stimulator that allows activation of a variety of endoepithelial receptors and is suitable for the study of reflexes in animals and humans. <i>Journal of Neuroscience Methods</i> , 1997, 77, 119-127.	2.5	3

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73	Design and construction of a brain phantom to simulate neonatal MR images. <i>Computerized Medical Imaging and Graphics</i> , 2011, 35, 237-250.	5.8	3
74	Evaluation of anterior fontanel size and area in the newborn using CT images. <i>Journal of Intelligent and Fuzzy Systems</i> , 2015, 29, 443-450.	1.4	3
75	Neonatal Atlas Templates for the Study of Brain Development Using Magnetic Resonance Images. <i>Current Medical Imaging</i> , 2015, 11, 38-48.	0.8	2
76	A survey on stimuli for visual cortical function assessment in infants. <i>Brain and Development</i> , 2018, 40, 2-15.	1.1	2
77	Cortical hemodynamic mapping of subthalamic nucleus deep brain stimulation in Parkinsonian patients, using high-density functional near-infrared spectroscopy. <i>PLoS ONE</i> , 2021, 16, e0245188.	2.5	2
78	Realistic Head Model Design and 3D Brain Imaging of NIRS Signals Using Audio Stimuli on Preterm Neonates for Intra-Ventricular Hemorrhage Diagnosis. <i>Lecture Notes in Computer Science</i> , 2012, 15, 172-179.	1.3	2
79	A Tool to Investigate Symmetry Properties of Newborns Brain: The Newborns'™ Symmetric Brain Atlas. <i>ISRN Neuroscience</i> , 2013, 2013, 1-6.	1.5	1
80	Evolution of cross-frequency coupling between endogenous oscillations over the temporal cortex in very premature neonates. <i>Cerebral Cortex</i> , 2022, 33, 278-289.	2.9	1
81	High-density EEG and source analysis: Principles, recent progress and applications in children. <i>Journal of Pediatric Epilepsy</i> , 2015, 02, 003-018.	0.2	0
82	Differences in behavioral and cortical indices in pianists and non-musicians during a non-musical motor planning task: An event-related potential study. <i>Neuroscience Letters</i> , 2022, 769, 136321.	2.1	0
83	Dynamics of cortical oxygenation during immediate adaptation to extrauterine life. <i>Scientific Reports</i> , 2021, 11, 22041.	3.3	0