

Martin Wolf

List of Publications by Year in descending order

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99
papers

4,851
citations

159585

30
h-index

98798

67
g-index

101
all docs

101
docs citations

101
times ranked

4732
citing authors

#	ARTICLE	IF	CITATIONS
1	A review on continuous wave functional near-infrared spectroscopy and imaging instrumentation and methodology. <i>NeuroImage</i> , 2014, 85, 6-27.	4.2	1,371
2	Progress of near-infrared spectroscopy and topography for brain and muscle clinical applications. <i>Journal of Biomedical Optics</i> , 2007, 12, 062104.	2.6	445
3	An Efficient Algorithm for Automatic Peak Detection in Noisy Periodic and Quasi-Periodic Signals. <i>Algorithms</i> , 2012, 5, 588-603.	2.1	275
4	Cerebral near infrared spectroscopy oximetry in extremely preterm infants: phase II randomised clinical trial. <i>BMJ</i> , The, 2015, 350, g7635-g7635.	6.0	224
5	Exergame and Balance Training Modulate Prefrontal Brain Activity during Walking and Enhance Executive Function in Older Adults. <i>Frontiers in Aging Neuroscience</i> , 2016, 8, 66.	3.4	185
6	Between-brain connectivity during imitation measured by fNIRS. <i>NeuroImage</i> , 2012, 63, 212-222.	4.2	165
7	A 30-frames/s, 252imes144\$ SPAD Flash LiDAR With 1728 Dual-Clock 48.8-ps TDCs, and Pixel-Wise Integrated Histogramming. <i>IEEE Journal of Solid-State Circuits</i> , 2019, 54, 1137-1151.	5.4	142
8	Best practices for fNIRS publications. <i>NeuroPhotonics</i> , 2021, 8, 012101.	3.3	142
9	Advances in Near-Infrared Spectroscopy to Study the Brain of the Preterm and Term Neonate. <i>Clinics in Perinatology</i> , 2009, 36, 807-834.	2.1	113
10	A new methodical approach in neuroscience: assessing inter-personal brain coupling using functional near-infrared imaging (fNIRI) hyperscanning. <i>Frontiers in Human Neuroscience</i> , 2013, 7, 813.	2.0	111
11	Modelling confounding effects from extracerebral contamination and systemic factors on functional near-infrared spectroscopy. <i>NeuroImage</i> , 2016, 143, 91-105.	4.2	99
12	Between-brain coherence during joint n-back task performance: A two-person functional near-infrared spectroscopy study. <i>Behavioural Brain Research</i> , 2012, 234, 212-222.	2.2	77
13	Measuring tissue hemodynamics and oxygenation by continuous-wave functional near-infrared spectroscopy—how robust are the different calculation methods against movement artifacts?. <i>Physiological Measurement</i> , 2014, 35, 717-734.	2.1	67
14	A High-PDE, Backside-Illuminated SPAD in 65/40-nm 3D IC CMOS Pixel With Cascoded Passive Quenching and Active Recharge. <i>IEEE Electron Device Letters</i> , 2017, 38, 1547-1550.	3.9	66
15	Detection of motor execution using a hybrid fNIRS-biosignal BCI: a feasibility study. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2013, 10, 4.	4.6	65
16	Wearable and modular functional near-infrared spectroscopy instrument with multidistance measurements at four wavelengths. <i>NeuroPhotonics</i> , 2017, 4, 1.	3.3	57
17	Development of a luminous textile for reflective pulse oximetry measurements. <i>Biomedical Optics Express</i> , 2014, 5, 2537.	2.9	55
18	Calibration of a prototype NIRS oximeter against two commercial devices on a blood-lipid phantom. <i>Biomedical Optics Express</i> , 2013, 4, 1662.	2.9	53

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19	From Membrane to Skin: Aqueous Permeation Control Through Light-Responsive Amphiphilic Polymer Co-Networks. <i>Advanced Functional Materials</i> , 2014, 24, 5194-5201.	14.9	51
20	Short-channel regression in functional near-infrared spectroscopy is more effective when considering heterogeneous scalp hemodynamics. <i>Neurophotonics</i> , 2020, 7, 035011.	3.3	46
21	A Review of near Infrared Spectroscopy for Term and Preterm Newborns. <i>Journal of Near Infrared Spectroscopy</i> , 2012, 20, 43-55.	1.5	45
22	A CMOS SPAD Imager with Collision Detection and 128 Dynamically Reallocating TDCs for Single-Photon Counting and 3D Time-of-Flight Imaging. <i>Sensors</i> , 2018, 18, 4016.	3.8	45
23	Precision of cerebral oxygenation and hemoglobin concentration measurements in neonates measured by near-infrared spectroscopy. <i>Journal of Biomedical Optics</i> , 2011, 16, 047005.	2.6	43
24	Cerebral Oxygenation in Patients With OSA. <i>Chest</i> , 2014, 146, 299-308.	0.8	40
25	Effect of short-term colored-light exposure on cerebral hemodynamics and oxygenation, and systemic physiological activity. <i>Neurophotonics</i> , 2017, 4, 1.	3.3	40
26	The Effect of Inner Speech on Arterial CO ₂ and Cerebral Hemodynamics and Oxygenation: A Functional NIRS Study. <i>Advances in Experimental Medicine and Biology</i> , 2013, 789, 81-87.	1.6	37
27	Valence of physical stimuli, not housing conditions, affects behaviour and frontal cortical brain activity in sheep. <i>Behavioural Brain Research</i> , 2014, 267, 144-155.	2.2	34
28	The relationship between sympathetic nervous activity and cerebral hemodynamics and oxygenation: A study using skin conductance measurement and functional near-infrared spectroscopy. <i>Behavioural Brain Research</i> , 2014, 270, 95-107.	2.2	34
29	Reproducibility of cerebral tissue oxygen saturation measurements by near-infrared spectroscopy in newborn infants. <i>Journal of Biomedical Optics</i> , 2011, 16, 097004.	2.6	31
30	Development of light-responsive porous polycarbonate membranes for controlled caffeine delivery. <i>RSC Advances</i> , 2013, 3, 23317.	3.6	31
31	Body-monitoring with photonic textiles: a reflective heartbeat sensor based on polymer optical fibres. <i>Journal of the Royal Society Interface</i> , 2017, 14, 20170060.	3.4	31
32	Cerebral hemodynamic and oxygenation changes induced by inner and heard speech: a study combining functional near-infrared spectroscopy and capnography. <i>Journal of Biomedical Optics</i> , 2014, 19, 017002.	2.6	28
33	Systemic physiology augmented functional near-infrared spectroscopy: a powerful approach to study the embodied human brain. <i>Neurophotonics</i> , 2022, 9, .	3.3	26
34	A New Approach for Automatic Removal of Movement Artifacts in Near-Infrared Spectroscopy Time Series by Means of Acceleration Data. <i>Algorithms</i> , 2015, 8, 1052-1075.	2.1	24
35	In vivo precision assessment of a near-infrared spectroscopy-based tissue oximeter (OxyPrem v1.3) in neonates considering systemic hemodynamic fluctuations. <i>Journal of Biomedical Optics</i> , 2018, 23, 1.	2.6	24
36	Regional Differences of Hemodynamics and Oxygenation in the Human Calf Muscle Detected with Near-Infrared Spectrophotometry. <i>Journal of Vascular and Interventional Radiology</i> , 2007, 18, 1094-1101.	0.5	21

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37	Reproducibility and sensitivity of detecting brain activity by simultaneous electroencephalography and near-infrared spectroscopy. <i>Experimental Brain Research</i> , 2012, 222, 255-264.	1.5	21
38	Frontal brain deactivation during a non-verbal cognitive judgement bias test in sheep. <i>Brain and Cognition</i> , 2015, 93, 35-41.	1.8	20
39	Quantifying the effect of adipose tissue in muscle oximetry by near infrared spectroscopy. <i>Biomedical Optics Express</i> , 2016, 7, 4605.	2.9	20
40	Correlation between skin, bone, and cerebrospinal fluid layer thickness and optical coefficients measured by multidistance frequency-domain near-infrared spectroscopy in term and preterm infants. <i>Journal of Biomedical Optics</i> , 2014, 19, 017004.	2.6	19
41	Single-Photon Avalanche Diode Imagers Applied to Near-Infrared Imaging. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2014, 20, 291-298.	2.9	18
42	ATRP-based synthesis and characterization of light-responsive coatings for transdermal delivery systems. <i>Science and Technology of Advanced Materials</i> , 2015, 16, 034604.	6.1	17
43	Prospective observational study on assessing the hemodynamic relevance of patent ductus arteriosus with frequency domain near-infrared spectroscopy. <i>BMC Pediatrics</i> , 2018, 18, 66.	1.7	17
44	The Effect of Basic Assumptions on the Tissue Oxygen Saturation Value of Near Infrared Spectroscopy. <i>Advances in Experimental Medicine and Biology</i> , 2013, 765, 169-175.	1.6	17
45	The SafeBoosC phase II clinical trial: an analysis of the interventions related with the oximeter readings. <i>Archives of Disease in Childhood: Fetal and Neonatal Edition</i> , 2016, 101, F333-F338.	2.8	16
46	fNIRS derived hemodynamic signals and electrodermal responses in a sequential risk-taking task. <i>Brain Research</i> , 2014, 1557, 141-154.	2.2	15
47	Dynamic time domain near-infrared optical tomography based on a SPAD camera. <i>Biomedical Optics Express</i> , 2020, 11, 5470.	2.9	15
48	Housing conditions influence cortical and behavioural reactions of sheep in response to videos showing social interactions of different valence. <i>Behavioural Brain Research</i> , 2015, 284, 69-76.	2.2	13
49	Spectral correction for handheld optoacoustic imaging by means of near-infrared optical tomography in reflection mode. <i>Journal of Biophotonics</i> , 2019, 12, e201800112.	2.3	13
50	Cerebral hemodynamic responses in preterm-born neonates to visual stimulation: classification according to subgroups and analysis of frontotemporal-occipital functional connectivity. <i>Neurophotonics</i> , 2019, 6, 1.	3.3	13
51	Multimodal imaging combining time-domain near-infrared optical tomography and continuous-wave fluorescence molecular tomography. <i>Optics Express</i> , 2020, 28, 9860.	3.4	13
52	Time-domain NIRS system based on supercontinuum light source and multi-wavelength detection: validation for tissue oxygenation studies. <i>Biomedical Optics Express</i> , 2021, 12, 6629.	2.9	12
53	Systemic physiology augmented functional near-infrared spectroscopy hyperscanning: a first evaluation investigating entrainment of spontaneous activity of brain and body physiology between subjects. <i>Neurophotonics</i> , 2022, 9, 026601.	3.3	12
54	Fast reconstruction of optical properties for complex segmentations in near infrared imaging. <i>Journal of Modern Optics</i> , 2017, 64, 732-742.	1.3	11

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55	Image reconstruction for novel time domain near infrared optical tomography: towards clinical applications. <i>Biomedical Optics Express</i> , 2020, 11, 4723.	2.9	11
56	Towards a BCI for sensorimotor training: Initial results from simultaneous fNIRS and biosignal recordings. , 2011, 2011, 6339-43.		10
57	A Novel 32 x 32, 224 Mevents/s Time Resolved SPAD Image Sensor for Near-Infrared Optical Tomography. , 2018, , .		10
58	Can the Assessment of Spontaneous Oscillations by Near Infrared Spectrophotometry Predict Neurological Outcome of Preterm Infants?. <i>Advances in Experimental Medicine and Biology</i> , 2016, 876, 521-531.	1.6	9
59	Working memory training shows immediate and long-term effects on cognitive performance in children and adolescents. <i>F1000Research</i> , 2014, 3, 82.	1.6	9
60	Characterizing reproducibility of cerebral hemodynamic responses when applying short-channel regression in functional near-infrared spectroscopy. <i>Neurophotonics</i> , 2022, 9, 015004.	3.3	9
61	Multi-laboratory performance assessment of diffuse optics instruments: the BitMap exercise. <i>Journal of Biomedical Optics</i> , 2022, 27, .	2.6	9
62	Investigating the Usability and Acute Effects of a Bedside Video Console to Prefrontal Cortical Activity Alterations: A Preclinical Study in Healthy Elderly. <i>Frontiers in Systems Neuroscience</i> , 2017, 11, 85.	2.5	8
63	The Effect of Sudden Depressurization on Pilots at Cruising Altitude. <i>Advances in Experimental Medicine and Biology</i> , 2013, 765, 177-183.	1.6	8
64	Increase in Low-Frequency Oscillations in fNIRS as Cerebral Response to Auditory Stimulation with Familiar Music. <i>Brain Sciences</i> , 2022, 12, 42.	2.3	8
65	Non-invasive visualization of amyloid-beta deposits in Alzheimer amyloidosis mice using magnetic resonance imaging and fluorescence molecular tomography. <i>Biomedical Optics Express</i> , 2022, 13, 3809.	2.9	8
66	Regional differences of cerebral hemoglobin concentration in preterm infants measured by near infrared spectrophotometry. <i>Technology and Health Care</i> , 1999, 7, 63-73.	1.2	7
67	Frontal Brain Activity and Behavioral Indicators of Affective States are Weakly Affected by Thermal Stimuli in Sheep Living in Different Housing Conditions. <i>Frontiers in Veterinary Science</i> , 2015, 2, 9.	2.2	7
68	Reference Ranges for Hemoglobin and Hematocrit Levels in Neonates as a Function of Gestational Age (22â€“42 Weeks) and Postnatal Age (0â€“29 Days): Mathematical Modeling. <i>Children</i> , 2019, 6, 38.	1.5	7
69	Brain Tissue Oxygen Saturation Increases During the Night in Adolescents. <i>Advances in Experimental Medicine and Biology</i> , 2013, 789, 113-119.	1.6	7
70	Absorption spectra of early stool from preterm infants need to be considered in abdominal NIRS oximetry. <i>Biomedical Optics Express</i> , 2019, 10, 2784.	2.9	7
71	2.5 Hz sample rate time-domain near-infrared optical tomography based on SPAD-camera image tissue hemodynamics. <i>Biomedical Optics Express</i> , 2022, 13, 133.	2.9	7
72	Characterizing Fluctuations of Arterial and Cerebral Tissue Oxygenation in Preterm Neonates by Means of Data Analysis Techniques for Nonlinear Dynamical Systems. <i>Advances in Experimental Medicine and Biology</i> , 2016, 876, 511-519.	1.6	5

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73	Dorsiflexor Muscle Oxygenation During Low, Moderate and Submaximal Sustained Isometric Contraction. <i>Advances in Experimental Medicine and Biology</i> , 2017, 977, 21-26.	1.6	5
74	A New Method Based on Graphics Processing Units for Fast Near-Infrared Optical Tomography. <i>Advances in Experimental Medicine and Biology</i> , 2017, 977, 191-197.	1.6	5
75	In Vitro Comparisons of Near-Infrared Spectroscopy Oximeters: Impact of Slow Changes in Scattering of Liquid Phantoms. <i>Advances in Experimental Medicine and Biology</i> , 2018, 1072, 375-379.	1.6	5
76	Characterization of the optical properties of color pastes for the design of optical phantoms mimicking biological tissue. <i>Journal of Biophotonics</i> , 2019, 12, e201800300.	2.3	5
77	Speech Therapy Changes Blood Circulation and Oxygenation in the Brain and Muscle. <i>Advances in Experimental Medicine and Biology</i> , 2011, 701, 21-25.	1.6	5
78	Liquid Blood Phantoms to Validate NIRS Oximeters: Yeast Versus Nitrogen for Deoxygenation. <i>Advances in Experimental Medicine and Biology</i> , 2018, 1072, 381-385.	1.6	4
79	Animal presence modulates frontal brain activity of patients in a minimally conscious state: A pilot study. <i>Neuropsychological Rehabilitation</i> , 2021, , 1-13.	1.6	4
80	Tissue oximetry by diffusive reflective visible light spectroscopy: Comparison of algorithms and their robustness. <i>Journal of Biophotonics</i> , 2018, 11, e201700367.	2.3	3
81	An investigation into the relationship between stimulus property, neural response and its manifestation in the visual evoked potential involving retinal resolution. <i>European Journal of Neuroscience</i> , 2021, 53, 2612-2628.	2.6	3
82	The Effect of Venous and Arterial Occlusion of the Arm on Changes in Tissue Hemodynamics, Oxygenation, and Ultra-Weak Photon Emission. <i>Advances in Experimental Medicine and Biology</i> , 2013, 765, 257-264.	1.6	3
83	Development and Validation of a Sensor Prototype for Near-Infrared Imaging of the Newborn Brain. <i>Advances in Experimental Medicine and Biology</i> , 2017, 977, 163-168.	1.6	3
84	Cerebral Blood Flow Measurements by near Infrared Spectrophotometry in Reflectance Mode are Valid in Neonates. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 1998, 18, 698-699.	4.3	2
85	Optical properties of mice's stool in 550 to 1000nm wavelength range. <i>Journal of Biophotonics</i> , 2018, 11, e201700076.	2.3	2
86	A multi-laboratory comparison of photon migration instruments and their performances: the BitMap exercise. , 2021, , .		2
87	Localization of Deep Ischemia and Hemorrhage in Preterm Infants' Head with Near-Infrared Optical Tomography: A Numerical Case Study. <i>Advances in Experimental Medicine and Biology</i> , 2021, 1269, 131-136.	1.6	2
88	Local Measurement of Flap Oxygen Saturation: An Application of Visible Light Spectroscopy. <i>Advances in Experimental Medicine and Biology</i> , 2016, 876, 391-397.	1.6	2
89	Hemoglobin spectra affect measurement of tissue oxygen saturation. , 2018, , .		2
90	Precision of time-resolved near-infrared spectroscopy-based measurements of cerebral oxygenation in preterm infants. <i>Neurophotonics</i> , 2021, 8, 045001.	3.3	2

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91	Not Removing the Glossy White Cover from Adhesive INVOS Neonatal Sensors Affects the Oxygenation Measurement. <i>Advances in Experimental Medicine and Biology</i> , 2021, 1269, 353-357.	1.6	1
92	Trial-to-trial variability differs between low versus high responders in motor imagery: Near-infrared spectroscopy study. , 2011, , .		0
93	NEAR-INFRARED IMAGING SENSOR WITH IMPROVED HANDLING AND DIRECT LOCALIZATION IN SIMULTANEOUS MAGNETIC RESONANCE IMAGING MEASUREMENTS. <i>Journal of Innovative Optical Health Sciences</i> , 2011, 04, 191-198.	1.0	0
94	Hydrogels: From Membrane to Skin: Aqueous Permeation Control Through Light-Responsive Amphiphilic Polymer Co-Networks (<i>Adv. Funct. Mater.</i> 33/2014). <i>Advanced Functional Materials</i> , 2014, 24, 5308-5308.	14.9	0
95	The Influence of Inner and Heard Speech in Arts Speech Therapy on Brain Oxygenation and Hemodynamics. <i>Journal of Alternative and Complementary Medicine</i> , 2014, 20, A78-A78.	2.1	0
96	Preparation of Light-responsive Membranes by a Combined Surface Grafting and Postmodification Process. <i>Journal of Visualized Experiments</i> , 2014, , .	0.3	0
97	Synchronized Oscillations of Arterial Oxygen Saturation, Cerebral Tissue Oxygenation and Heart Rate in Preterm Neonates: Investigation of Long-Term Measurements with Multiple Einsteinâ€™s Cross Wavelet Analysis. <i>Advances in Experimental Medicine and Biology</i> , 2018, 1072, 157-161.	1.6	0
98	Evaluation of a Textile-Based Near Infrared Spectroscopy System in Calf Muscle Oxygenation Measurements. <i>Advances in Experimental Medicine and Biology</i> , 2014, 812, 355-360.	1.6	0
99	Resolution in depth for SPAD camera based time domain near infrared optical tomography. , 2022, , .		0