

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	2.5 Hz sample rate time-domain near-infrared optical tomography based on SPAD-camera image tissue hemodynamics. Biomedical Optics Express, 2022, 13, 133.	2.9	7
2	Characterizing reproducibility of cerebral hemodynamic responses when applying short-channel regression in functional near-infrared spectroscopy. Neurophotonics, 2022, 9, 015004.	3.3	9
3	Increase in Low-Frequency Oscillations in fNIRS as Cerebral Response to Auditory Stimulation with Familiar Music. Brain Sciences, 2022, 12, 42.	2.3	8
4	Systemic physiology augmented functional near-infrared spectroscopy hyperscanning: a first evaluation investigating entrainment of spontaneous activity of brain and body physiology between subjects. Neurophotonics, 2022, 9, 026601.	3.3	12
5	Non-invasive visualization of amyloid-beta deposits in Alzheimer amyloidosis mice using magnetic resonance imaging and fluorescence molecular tomography. Biomedical Optics Express, 2022, 13, 3809.	2.9	8
6	Multi-laboratory performance assessment of diffuse optics instruments: the BitMap exercise. Journal of Biomedical Optics, 2022, 27, .	2.6	9
7	Resolution in depth for SPAD camera based time domain near infrared optical tomography. , 2022, , .		0
8	Systemic physiology augmented functional near-infrared spectroscopy: a powerful approach to study the embodied human brain. Neurophotonics, 2022, 9, .	3.3	26
9	Best practices for fNIRS publications. Neurophotonics, 2021, 8, 012101.	3.3	142
10	Animal presence modulates frontal brain activity of patients in a minimally conscious state: A pilot study. Neuropsychological Rehabilitation, 2021, , 1-13.	1.6	4
11	An investigation into the relationship between stimulus property, neural response and its manifestation in the visual evoked potential involving retinal resolution. European Journal of Neuroscience, 2021, 53, 2612-2628.	2.6	3
12	A multi-laboratory comparison of photon migration instruments and their performances: the BitMap exercise. , 2021, , .		2
13	Time-domain NIRS system based on supercontinuum light source and multi-wavelength detection: validation for tissue oxygenation studies. Biomedical Optics Express, 2021, 12, 6629.	2.9	12
14	Not Removing the Glossy White Cover from Adhesive INVOS Neonatal Sensors Affects the Oxygenation Measurement. Advances in Experimental Medicine and Biology, 2021, 1269, 353-357.	1.6	1
15	Localization of Deep Ischemia and Hemorrhage in Preterm Infants's™ Head with Near-Infrared Optical Tomography: A Numerical Case Study. Advances in Experimental Medicine and Biology, 2021, 1269, 131-136.	1.6	2
16	Precision of time-resolved near-infrared spectroscopy-based measurements of cerebral oxygenation in preterm infants. Neurophotonics, 2021, 8, 045001.	3.3	2
17	Short-channel regression in functional near-infrared spectroscopy is more effective when considering heterogeneous scalp hemodynamics. Neurophotonics, 2020, 7, 035011.	3.3	46
18	Image reconstruction for novel time domain near infrared optical tomography: towards clinical applications. Biomedical Optics Express, 2020, 11, 4723.	2.9	11

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19	Dynamic time domain near-infrared optical tomography based on a SPAD camera. Biomedical Optics Express, 2020, 11, 5470.	2.9	15
20	Multimodal imaging combining time-domain near-infrared optical tomography and continuous-wave fluorescence molecular tomography. Optics Express, 2020, 28, 9860.	3.4	13
21	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. Children, 2019, 6, 38.	1.5	7
22	Spectral correction for handheld optoacoustic imaging by means of nearâ€“infrared optical tomography in reflection mode. Journal of Biophotonics, 2019, 12, e201800112.	2.3	13
23	A 30-frames/s, \$252imes144\$ SPAD Flash LiDAR With 1728 Dual-Clock 48.8-ps TDCs, and Pixel-Wise Integrated Histogramming. IEEE Journal of Solid-State Circuits, 2019, 54, 1137-1151.	5.4	142
24	Characterization of the optical properties of color pastes for the design of optical phantoms mimicking biological tissue. Journal of Biophotonics, 2019, 12, e201800300.	2.3	5
25	Cerebral hemodynamic responses in preterm-born neonates to visual stimulation: classification according to subgroups and analysis of frontotemporalâ€“occipital functional connectivity. Neurophotonics, 2019, 6, 1.	3.3	13
26	Absorption spectra of early stool from preterm infants need to be considered in abdominal NIRS oximetry. Biomedical Optics Express, 2019, 10, 2784.	2.9	7
27	Tissue oximetry by diffusive reflective visible light spectroscopy: Comparison of algorithms and their robustness. Journal of Biophotonics, 2018, 11, e201700367.	2.3	3
28	Prospective observational study on assessing the hemodynamic relevance of patent ductus arteriosus with frequency domain near-infrared spectroscopy. BMC Pediatrics, 2018, 18, 66.	1.7	17
29	Optical properties of mice's stool in 550 to 1000â€“nm wavelength range. Journal of Biophotonics, 2018, 11, e201700076.	2.3	2
30	A CMOS SPAD Imager with Collision Detection and 128 Dynamically Reallocating TDCs for Single-Photon Counting and 3D Time-of-Flight Imaging. Sensors, 2018, 18, 4016.	3.8	45
31	In Vitro Comparisons of Near-Infrared Spectroscopy Oximeters: Impact of Slow Changes in Scattering of Liquid Phantoms. Advances in Experimental Medicine and Biology, 2018, 1072, 375-379.	1.6	5
32	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. Advances in Experimental Medicine and Biology, 2018, 1072, 157-161.	1.6	0
33	Liquid Blood Phantoms to Validate NIRS Oximeters: Yeast Versus Nitrogen for Deoxygenation. Advances in Experimental Medicine and Biology, 2018, 1072, 381-385.	1.6	4
34	In vivo precision assessment of a near-infrared spectroscopy-based tissue oximeter (OxyPrem v1.3) in neonates considering systemic hemodynamic fluctuations. Journal of Biomedical Optics, 2018, 23, 1.	2.6	24
35	Hemoglobin spectra affect measurement of tissue oxygen saturation. , 2018, , .		2
36	A Novel 32 x 32, 224 Mevents/s Time Resolved SPAD Image Sensor for Near-Infrared Optical Tomography. , 2018, , .		10

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37	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
38	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
39	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
40	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
41	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
42	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
43	Wearable and modular functional near-infrared spectroscopy instrument with multidistance measurements at four wavelengths. <i>Neurophotonics</i> , 2017, 4, 1.	3.3	57
44	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
45	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
46	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
47	Quantifying the effect of adipose tissue in muscle oximetry by near infrared spectroscopy. <i>Biomedical Optics Express</i> , 2016, 7, 4605.	2.9	20
48	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
49	Modelling confounding effects from extracerebral contamination and systemic factors on functional near-infrared spectroscopy. <i>NeuroImage</i> , 2016, 143, 91-105.	4.2	99
50	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
51	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
52	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
53	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
54	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

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55	Cerebral near infrared spectroscopy oximetry in extremely preterm infants: phase II randomised clinical trial. <i>BMJ, The</i> , 2015, 350, g7635-g7635.	6.0	224
56	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
57	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
58	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
59	Development of a luminous textile for reflective pulse oximetry measurements. <i>Biomedical Optics Express</i> , 2014, 5, 2537.	2.9	55
60	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
61	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
62	Cerebral Oxygenation in Patients With OSA. <i>Chest</i> , 2014, 146, 299-308.	0.8	40
63	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
64	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
65	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
66	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
67	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
68	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
69	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
70	fNIRS derived hemodynamic signals and electrodermal responses in a sequential risk-taking task. <i>Brain Research</i> , 2014, 1557, 141-154.	2.2	15
71	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
72	Preparation of Light-responsive Membranes by a Combined Surface Grafting and Postmodification Process. <i>Journal of Visualized Experiments</i> , 2014, , .	0.3	0

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73	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
74	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
75	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
76	Development of light-responsive porous polycarbonate membranes for controlled caffeine delivery. <i>RSC Advances</i> , 2013, 3, 23317.	3.6	31
77	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
78	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
79	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
80	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
81	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
82	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
83	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
84	An Efficient Algorithm for Automatic Peak Detection in Noisy Periodic and Quasi-Periodic Signals. <i>Algorithms</i> , 2012, 5, 588-603.	2.1	275
85	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
86	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
87	Between-brain connectivity during imitation measured by fNIRS. <i>NeuroImage</i> , 2012, 63, 212-222.	4.2	165
88	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
89	Trial-to-trial variability differs between low versus high responders in motor imagery: Near-infrared spectroscopy study. , 2011, , .		0
90	Towards a BCI for sensorimotor training: Initial results from simultaneous fNIRS and biosignal recordings. , 2011, 2011, 6339-43.		10

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91	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
92	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
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	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
95	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
96	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
97	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
98	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
99	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