

Jens Steinbrink

List of Publications by Year in descending order

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88
papers

5,874
citations

94269

37
h-index

85405

71
g-index

94
all docs

94
docs citations

94
times ranked

5518
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced performance by a hybrid NIRS-EEG brain computer interface. <i>NeuroImage</i> , 2012, 59, 519-529.	2.1	595
2	Spontaneous Low Frequency Oscillations of Cerebral Hemodynamics and Metabolism in Human Adults. <i>NeuroImage</i> , 2000, 12, 623-639.	2.1	585
3	Cortical spreading ischaemia is a novel process involved in ischaemic damage in patients with aneurysmal subarachnoid haemorrhage. <i>Brain</i> , 2009, 132, 1866-1881.	3.7	479
4	A wearable multi-channel fNIRS system for brain imaging in freely moving subjects. <i>NeuroImage</i> , 2014, 85, 64-71.	2.1	316
5	Illuminating the BOLD signal: combined fMRI-fNIRS studies. <i>Magnetic Resonance Imaging</i> , 2006, 24, 495-505.	1.0	277
6	Determining changes in NIR absorption using a layered model of the human head. <i>Physics in Medicine and Biology</i> , 2001, 46, 879-896.	1.6	255
7	Time-resolved multidistance near-infrared spectroscopy of the adult head: intracerebral and extracerebral absorption changes from moments of distribution of times of flight of photons. <i>Applied Optics</i> , 2004, 43, 3037.	2.1	240
8	Near-infrared spectroscopy: does it function in functional activation studies of the adult brain?. <i>International Journal of Psychophysiology</i> , 2000, 35, 125-142.	0.5	239
9	Sensitivity of Newborn Auditory Cortex to the Temporal Structure of Sounds. <i>Journal of Neuroscience</i> , 2009, 29, 14726-14733.	1.7	226
10	Bed-side assessment of cerebral perfusion in stroke patients based on optical monitoring of a dye bolus by time-resolved diffuse reflectance. <i>NeuroImage</i> , 2005, 24, 426-435.	2.1	146
11	Cross talk in the Lambert-Beer calculation for near-infrared wavelengths estimated by Monte Carlo simulations. <i>Journal of Biomedical Optics</i> , 2002, 7, 51.	1.4	119
12	Somatosensory evoked fast optical intensity changes detected non-invasively in the adult human head. <i>Neuroscience Letters</i> , 2000, 291, 105-108.	1.0	112
13	Separability and cross talk: optimizing dual wavelength combinations for near-infrared spectroscopy of the adult head. <i>NeuroImage</i> , 2004, 22, 583-589.	2.1	101
14	Non-invasive detection of fluorescence from exogenous chromophores in the adult human brain. <i>NeuroImage</i> , 2006, 31, 600-608.	2.1	93
15	Noninvasive monitoring of cerebral blood flow by a dye bolus method: Separation of brain from skin and skull signals. <i>Journal of Biomedical Optics</i> , 2002, 7, 464.	1.4	88
16	Neurovascular Coupling in Rat Brain Operates Independent of Hemoglobin Deoxygenation. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2010, 30, 757-768.	2.4	84
17	Somatosensory activation of two fingers can be discriminated with ultrahigh-density diffuse optical tomography. <i>NeuroImage</i> , 2012, 59, 3201-3211.	2.1	84
18	The processing of prosody: Evidence of interhemispheric specialization at the age of four. <i>NeuroImage</i> , 2007, 34, 416-425.	2.1	83

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19	The fast optical signal—Robust or elusive when non-invasively measured in the human adult?. <i>NeuroImage</i> , 2005, 26, 996-1008.	2.1	82
20	Stimulus-Induced and State-Dependent Sustained Gamma Activity Is Tightly Coupled to the Hemodynamic Response in Humans. <i>Journal of Neuroscience</i> , 2009, 29, 13962-13970.	1.7	77
21	Near-infrared fluorescence imaging with fluorescently labeled albumin: A novel method for non-invasive optical imaging of blood—brain barrier impairment after focal cerebral ischemia in mice. <i>Journal of Neuroscience Methods</i> , 2009, 180, 126-132.	1.3	71
22	Acoustic Processing of Temporally Modulated Sounds in Infants: Evidence from a Combined Near-Infrared Spectroscopy and EEG Study. <i>Frontiers in Psychology</i> , 2011, 1, 62.	1.1	68
23	<i>In Vivo</i> Near-Infrared Fluorescence Imaging of Matrix Metalloproteinase Activity after Cerebral Ischemia. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2009, 29, 1284-1292.	2.4	62
24	Developmental changes in brain activation and functional connectivity during response inhibition in the early childhood brain. <i>Brain and Development</i> , 2013, 35, 894-904.	0.6	58
25	Time-Resolved Near-Infrared Spectroscopy and Imaging of the Adult Human Brain. <i>Advances in Experimental Medicine and Biology</i> , 2010, 662, 143-148.	0.8	55
26	In Vivo Imaging of the Inflammatory Receptor CD40 After Cerebral Ischemia Using a Fluorescent Antibody. <i>Stroke</i> , 2008, 39, 2845-2852.	1.0	54
27	High-resolution optical functional mapping of the human somatosensory cortex. <i>Frontiers in Neuroenergetics</i> , 2010, 2, 12.	5.3	54
28	Monochromatic Ultra-Slow (~0.1Hz) Oscillations in the human electroencephalogram and their relation to hemodynamics. <i>NeuroImage</i> , 2014, 97, 71-80.	2.1	52
29	Individual alpha-frequency correlates with amplitude of visual evoked potential and hemodynamic response. <i>NeuroImage</i> , 2008, 41, 233-242.	2.1	51
30	Optical bedside monitoring of cerebral perfusion: technological and methodological advances applied in a study on acute ischemic stroke. <i>Journal of Biomedical Optics</i> , 2010, 15, 061708.	1.4	51
31	Tracking of systemically administered mononuclear cells in the ischemic brain by high-field magnetic resonance imaging. <i>NeuroImage</i> , 2006, 33, 886-897.	2.1	48
32	The oxygenation response to functional stimulation: Is there a physiological meaning to the lag between parameters?. <i>NeuroImage</i> , 2007, 36, 100-107.	2.1	45
33	Effect of a mirror-like illusion on activation in the precuneus assessed with functional near-infrared spectroscopy. <i>Journal of Biomedical Optics</i> , 2013, 18, 066001.	1.4	45
34	Towards Noninvasive Molecular Fluorescence Imaging of the Human Brain. <i>Neurodegenerative Diseases</i> , 2008, 5, 296-303.	0.8	42
35	Imperceptible Somatosensory Stimulation Alters Sensorimotor Background Rhythm and Connectivity. <i>Journal of Neuroscience</i> , 2015, 35, 5917-5925.	1.7	42
36	Cerebral Perfusion in Acute Stroke Monitored by Time-domain Near-infrared Reflectometry. <i>Bio cybernetics and Biomedical Engineering</i> , 2012, 32, 3-16.	3.3	41

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37	Estimation of megacity growth. <i>Applied Geography</i> , 1998, 18, 69-81.	1.7	40
38	Cytochrome-c-oxidase redox changes during visual stimulation measured by near-infrared spectroscopy cannot be explained by a mere cross talk artefact. <i>NeuroImage</i> , 2004, 22, 109-119.	2.1	39
39	Synchronization between Background Activity and Visually Evoked Potential Is Not Mirrored by Focal Hyperoxygenation: Implications for the Interpretation of Vascular Brain Imaging. <i>Journal of Neuroscience</i> , 2006, 26, 4940-4948.	1.7	39
40	Decoding Vigilance with NIRS. <i>PLoS ONE</i> , 2014, 9, e101729.	1.1	37
41	A flow sensitive alternating inversion recovery (FAIR)-MRI protocol to measure hemispheric cerebral blood flow in a mouse stroke model. <i>Experimental Neurology</i> , 2008, 210, 118-127.	2.0	36
42	Non-invasive optical imaging of stroke. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011, 369, 4470-4494.	1.6	36
43	Contrast enhanced high-resolution diffuse optical tomography of the human brain using ICG. <i>Optics Express</i> , 2011, 19, 18636.	1.7	35
44	Visualization of Cell Death in MICE with Focal Cerebral Ischemia using Fluorescent Annexin A5, Propidium Iodide, and Tunel Staining. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2011, 31, 1311-1320.	2.4	35
45	Optimizing the regularization for image reconstruction of cerebral diffuse optical tomography. <i>Journal of Biomedical Optics</i> , 2014, 19, 096006.	1.4	35
46	Relevance of depth resolution for cerebral blood flow monitoring by near-infrared spectroscopic bolus tracking during cardiopulmonary bypass. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2006, 132, 1172-1178.	0.4	34
47	Hypothermia effects on neurovascular coupling and cerebral metabolic rate of oxygen. <i>NeuroImage</i> , 2008, 40, 1523-1532.	2.1	33
48	Functional imaging with Laser Speckle Contrast Analysis: Vascular compartment analysis and correlation with Laser Doppler Flowmetry and somatosensory evoked potentials. <i>Brain Research</i> , 2006, 1121, 95-103.	1.1	32
49	Are VEP Correlated Fast Optical Signals Detectable in the Human Adult by Non-Invasive Nearinfrared Spectroscopy (NIRS)?. <i>Advances in Experimental Medicine and Biology</i> , 2003, 530, 421-431.	0.8	26
50	Potential determinants of efficacy of mirror therapy in stroke patients – A pilot study. <i>Restorative Neurology and Neuroscience</i> , 2015, 33, 421-434.	0.4	26
51	A time-domain NIR brain imager applied in functional stimulation experiments. , 2005, , .		20
52	Towards Whole-Body Fluorescence Imaging in Humans. <i>PLoS ONE</i> , 2013, 8, e83749.	1.1	20
53	Editorial Comment – Cerebral Near-Infrared Spectroscopy: How Far Away From a Routine Diagnostic Tool?. <i>Stroke</i> , 2004, 35, 70-72.	1.0	18
54	Noninvasive Near-infrared Imaging of Fluorochromes within the Brains of Live Mice: An In Vivo Phantom Study. <i>Molecular Imaging</i> , 2006, 5, 7290.2006.00021.	0.7	18

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55	Using NIRS as a predictor for EEG-based BCI performance. , 2012, 2012, 4911-4.		18
56	A validation study of the use of near-infrared spectroscopy imaging in primary and secondary motor areas of the human brain. Epilepsy and Behavior, 2015, 49, 118-125.	0.9	18
57	Fluorescence tomography technique optimized for noninvasive imaging of the mouse brain. Journal of Biomedical Optics, 2008, 13, 041311.	1.4	17
58	Correcting saturation effects of the arterial input function in dynamic susceptibility contrast-enhanced MRI â€” a Monte Carlo simulation. Magnetic Resonance Imaging, 2007, 25, 1300-1311.	1.0	16
59	Social work after stroke: identifying demand for support by recording stroke patientsâ€™ and carersâ€™ needs in different phases after stroke. BMC Neurology, 2016, 16, 111.	0.8	16
60	Noninvasive near-infrared imaging of fluorochromes within the brain of live mice: an in vivo phantom study. Molecular Imaging, 2006, 5, 180-7.	0.7	14
61	Dysferlin-deficient Muscular Dystrophy: Gadofluorine M Suitability at MR Imaging in a Mouse Model. Radiology, 2009, 250, 87-94.	3.6	12
62	Separation of indocyanine green boluses in the human brain and scalp based on time-resolved in-vivo fluorescence measurements. Journal of Biomedical Optics, 2012, 17, 057003.	1.4	11
63	Evaluation of an AIF correction algorithm for dynamic susceptibility contrast-enhanced perfusion MRI. Magnetic Resonance in Medicine, 2008, 60, 102-110.	1.9	9
64	Ultrasound Perfusion Imaging of Small Stroke Involving the Thalamus. Ultraschall in Der Medizin, 2009, 30, 466-470.	0.8	8
65	Non-invasive surface-stripping for epifluorescence small animal imaging. Biomedical Optics Express, 2010, 1, 97.	1.5	8
66	Intra- and extracerebral changes of hemoglobin concentrations by analysis of moments of distributions of times of flight of photons. , 2003, , .		6
67	Noninvasive Fluorescence Imaging in Animal Models of Stroke. Current Medicinal Chemistry, 2012, 19, 4786-4793.	1.2	6
68	Impact of Selection Criteria on Recruitment in an Interventional Stroke Trial. Cerebrovascular Diseases, 2013, 36, 344-350.	0.8	6
69	Multimodal imaging technique for rapid response brain-computer interface feedback. , 2013, , .		4
70	Imaging of Motor Activity in Freely Moving Subjects Using a Wearable NIRS Imaging System. , 2012, , .		3
71	Depth sensitivity in multi-distance NIRS measurements in humans. , 2012, , .		3
72	A Time-Domain NIR Brain Imager Applied in Functional Stimulation Experiments. , 2005, , .		3

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73	The Blushing Brain: Changes in Brain Colour Indicate the Functional State of the Cerebral Cortex. Medical Laser Application: International Journal for Laser Treatment and Research, 2003, 18, 206-216.	0.4	2
74	Allosteric release of nitric oxide from hemoglobin does not mediate neurovascular coupling. Journal of Cerebral Blood Flow and Metabolism, 2005, 25, S207-S207.	2.4	2
75	<title>Noninvasive cerebral blood flow monitoring by a dye bolus method;separation of extra- and intracerebral absorption changes by frequency-domain spectroscopy</title>. , 2001, , .		2
76	Investigating hemodynamics in scalp and brain using high-resolution diffuse optical tomography in humans. , 2012, , .		2
77	Ultrasound Perfusion Imaging of Cysts in the Midbrain. Ultraschall in Der Medizin, 2005, 26, 527-529.	0.8	1
78	Three-dimensional superposition of diffuse optical tomography results and subjacent anatomic structures. Proceedings of SPIE, 2011, , .	0.8	1
79	Instrumentation and Methodology for Bedside Monitoring of Cerebral Perfusion by Optical Bolus Tracking. , 2010, , .		1
80	Clinical Trial on Bedside Monitoring of Cerebral Perfusion in Acute Stroke by Time-Domain Near-Infrared Reflectometry. , 2010, , .		1
81	Combined EEG and time-resolved NIRS to study neuro-vascular coupling in the adult brain. , 2010, , .		1
82	Functional brain imaging by CW-NIRS coregistered by blood flow monitors. , 2003, , .		0
83	Functional differentiation within the monkey cortex as revealed by near-infrared spectroscopy. Nature Precedings, 2008, , .	0.1	0
84	Contrast-enhanced diffuse optical tomography of brain perfusion in humans using ICG. , 2012, , .		0
85	Intra- and extracerebral changes of hemoglobin concentrations by analysis of moments of distributions of times of flight of photons. , 2003, , .		0
86	Spatiotemporal correlation of neuronal activity and cerebral blood flow of the motor cortex: Non-invasive measurement of DC-EEG and near-infrared spectroscopy in humans during a motor task. Journal of Cerebral Blood Flow and Metabolism, 2005, 25, S367-S367.	2.4	0
87	Three-dimensional Superposition of Diffuse Optical Tomography Results and Subjacent Anatomic Structures. , 2011, , .		0
88	Whole Body Fluorescence Imaging in Humans. , 2012, , .		0