

Robert J Cooper

List of Publications by Year in descending order

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59
papers

3,248
citations

257101

24
h-index

197535

49
g-index

62
all docs

62
docs citations

62
times ranked

2458
citing authors

#	ARTICLE	IF	CITATIONS
1	Motion artifacts in functional near-infrared spectroscopy: A comparison of motion correction techniques applied to real cognitive data. <i>NeuroImage</i> , 2014, 85, 181-191.	2.1	397
2	Short separation channel location impacts the performance of short channel regression in NIRS. <i>NeuroImage</i> , 2012, 59, 2518-2528.	2.1	306
3	A Systematic Comparison of Motion Artifact Correction Techniques for Functional Near-Infrared Spectroscopy. <i>Frontiers in Neuroscience</i> , 2012, 6, 147.	1.4	304
4	Anatomical guidance for functional near-infrared spectroscopy: AtlasViewer tutorial. <i>Neurophotonics</i> , 2015, 2, 020801.	1.7	269
5	How short is short? Optimum source-detector distance for short-separation channels in functional near-infrared spectroscopy. <i>Neurophotonics</i> , 2015, 2, 025005.	1.7	218
6	Quantification of the cortical contribution to the NIRS signal over the motor cortex using concurrent NIRS-fMRI measurements. <i>NeuroImage</i> , 2012, 59, 3933-3940.	2.1	182
7	Further improvement in reducing superficial contamination in NIRS using double short separation measurements. <i>NeuroImage</i> , 2014, 85, 127-135.	2.1	169
8	Best practices for fNIRS publications. <i>Neurophotonics</i> , 2021, 8, 012101.	1.7	142
9	Performance assessment of time-domain optical brain imagers, part 1: basic instrumental performance protocol. <i>Journal of Biomedical Optics</i> , 2014, 19, 086010.	1.4	101
10	Targeted principle component analysis: A new motion artifact correction approach for near-infrared spectroscopy. <i>Journal of Innovative Optical Health Sciences</i> , 2014, 07, 1350066.	0.5	94
11	Validating atlas-guided DOT: A comparison of diffuse optical tomography informed by atlas and subject-specific anatomies. <i>NeuroImage</i> , 2012, 62, 1999-2006.	2.1	81
12	Review of recent progress toward a fiberless, whole-scalp diffuse optical tomography system. <i>Neurophotonics</i> , 2017, 5, 1.	1.7	76
13	Functional imaging of the human brain using a modular, fibre-less, high-density diffuse optical tomography system. <i>Biomedical Optics Express</i> , 2016, 7, 4275.	1.5	67
14	Reducing motion artifacts for long-term clinical NIRS monitoring using collodion-fixed prism-based optical fibers. <i>NeuroImage</i> , 2014, 85, 192-201.	2.1	66
15	A 4D neonatal head model for diffuse optical imaging of pre-term to term infants. <i>NeuroImage</i> , 2014, 100, 385-394.	2.1	61
16	Mapping Cortical Responses to Somatosensory Stimuli in Human Infants with Simultaneous Near-Infrared Spectroscopy and Event-Related Potential Recording. <i>ENeuro</i> , 2016, 3, ENEURO.0026-16.2016.	0.9	51
17	MONSTIR II: A 32-channel, multispectral, time-resolved optical tomography system for neonatal brain imaging. <i>Review of Scientific Instruments</i> , 2014, 85, 053105.	0.6	50
18	Functional imaging of the developing brain with wearable high-density diffuse optical tomography: A new benchmark for infant neuroimaging outside the scanner environment. <i>NeuroImage</i> , 2021, 225, 117490.	2.1	46

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19	Diffuse optical tomography to investigate the newborn brain. <i>Pediatric Research</i> , 2017, 82, 376-386.	1.1	45
20	Towards a wearable near infrared spectroscopic probe for monitoring concentrations of multiple chromophores in biological tissue <i>in vivo</i> . <i>Review of Scientific Instruments</i> , 2016, 87, 065112.	0.6	44
21	Mapping cortical haemodynamics during neonatal seizures using diffuse optical tomography: A case study. <i>NeuroImage: Clinical</i> , 2014, 5, 256-265.	1.4	43
22	Transient haemodynamic events in neurologically compromised infants: A simultaneous EEG and diffuse optical imaging study. <i>NeuroImage</i> , 2011, 55, 1610-1616.	2.1	38
23	Wearable, Integrated EEG&fNIRS Technologies: A Review. <i>Sensors</i> , 2021, 21, 6106.	2.1	38
24	The utility of near-infrared spectroscopy in the regression of low-frequency physiological noise from functional magnetic resonance imaging data. <i>NeuroImage</i> , 2012, 59, 3128-3138.	2.1	37
25	Hemodynamic response to burst-suppressed and discontinuous electroencephalography activity in infants with hypoxic ischemic encephalopathy. <i>NeuroPhotonics</i> , 2016, 3, 1.	1.7	25
26	Array Designer: automated optimized array design for functional near-infrared spectroscopy. <i>NeuroPhotonics</i> , 2018, 5, 1.	1.7	25
27	Functional NIRS Measurement of Cytochrome-C-Oxidase Demonstrates a More Brain-Specific Marker of Frontal Lobe Activation Compared to the Haemoglobins. <i>Advances in Experimental Medicine and Biology</i> , 2017, 977, 141-147.	0.8	22
28	Evaluating a new generation of wearable high-density diffuse optical tomography technology via retinotopic mapping of the adult visual cortex. <i>NeuroPhotonics</i> , 2021, 8, 025002.	1.7	18
29	Image reconstruction of oxidized cerebral cytochrome C oxidase changes from broadband near-infrared spectroscopy data. <i>NeuroPhotonics</i> , 2017, 4, 021105.	1.7	17
30	A wide field-of-view, modular, high-density diffuse optical tomography system for minimally constrained three-dimensional functional neuroimaging. <i>Biomedical Optics Express</i> , 2020, 11, 4110.	1.5	17
31	Sleep State Modulates Resting-State Functional Connectivity in Neonates. <i>Frontiers in Neuroscience</i> , 2020, 14, 347.	1.4	16
32	Design and validation of a mechanically flexible and ultra-lightweight high-density diffuse optical tomography system for functional neuroimaging of newborns. <i>NeuroPhotonics</i> , 2021, 8, 015011.	1.7	15
33	Group-level cortical functional connectivity patterns using fNIRS: assessing the effect of bilingualism in young infants. <i>NeuroPhotonics</i> , 2021, 8, 025011.	1.7	14
34	Smartphone-based photogrammetry provides improved localization and registration of scalp-mounted neuroimaging sensors. <i>Scientific Reports</i> , 2022, 12, .	1.6	14
35	A tissue equivalent phantom for simultaneous near-infrared optical tomography and EEG. <i>Biomedical Optics Express</i> , 2010, 1, 425.	1.5	13
36	Data-driven approach to optimum wavelength selection for diffuse optical imaging. <i>Journal of Biomedical Optics</i> , 2015, 20, 016003.	1.4	13

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37	Longitudinal infant fNIRS channel-space analyses are robust to variability parameters at the group-level: An image reconstruction investigation. <i>NeuroImage</i> , 2021, 237, 118068.	2.1	12
38	Evaluating real-time image reconstruction in diffuse optical tomography using physiologically realistic test data. <i>Biomedical Optics Express</i> , 2015, 6, 4719.	1.5	10
39	Pre-SMA activation and the perception of contagiousness and authenticity in laughter sounds. <i>Cortex</i> , 2021, 143, 57-68.	1.1	10
40	Adaptive motor cortex plasticity following grip reconstruction in individuals with tetraplegia. <i>Restorative Neurology and Neuroscience</i> , 2018, 36, 73-82.	0.4	9
41	Diffuse optical tomography for the detection of perinatal stroke at the cot side: a pilot study. <i>Pediatric Research</i> , 2019, 85, 1001-1007.	1.1	9
42	Construction and validation of a database of head models for functional imaging of the neonatal brain. <i>Human Brain Mapping</i> , 2021, 42, 567-586.	1.9	8
43	Widespread nociceptive maps in the human neonatal somatosensory cortex. <i>ELife</i> , 2022, 11, .	2.8	8
44	Watching the brain at work. <i>Nature Photonics</i> , 2014, 8, 425-426.	15.6	4
45	Cytochrome-C-Oxidase Exhibits Higher Brain-Specificity than Haemoglobin in Functional Activation. , 2016, , .		4
46	Integrating motion sensing and wearable, modular high-density diffuse optical tomography: preliminary results. , 2019, , .		4
47	Whole-head functional brain imaging of neonates at cot-side using time-resolved diffuse optical tomography. <i>Proceedings of SPIE</i> , 2015, , .	0.8	3
48	Advances in wearable high-density diffuse optical tomography: first applications of a new commercial technology and development of an infant-specific research device. , 2019, , .		3
49	Dynamic image reconstruction in time-resolved diffuse optical tomography. <i>Proceedings of SPIE</i> , 2015, , .	0.8	2
50	Whole-head functional brain imaging of neonates at cot-side using time-resolved diffuse optical tomography. , 2015, , .		2
51	Mapping hemodynamic changes during hypoglycemia in the very preterm neonatal brain: preliminary results. , 2019, , .		1
52	Dual wavelength spread-spectrum time-resolved diffuse optical instrument for the measurement of human brain functional responses. <i>Biomedical Optics Express</i> , 2020, 11, 3477.	1.5	1
53	Wearable High-Density Diffuse Optical Tomography (HD-DOT) for Unrestricted 3D Functional Neuroimaging. , 2020, , .		1
54	Simultaneous EEG and diffuse optical imaging of seizure-related hemodynamic activity in the newborn infant brain. <i>Proceedings of SPIE</i> , 2012, , .	0.8	0

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55	Quantifying the cortical contribution to the NIRS signal using simultaneous NIRS-BOLD measurements. , 2012, , .		0
56	Real-time dynamic image reconstruction in time-domain diffuse optical tomography. , 2016, , .		0
57	ANIMATE: wearable, flexible, and ultra-lightweight high-density diffuse optical tomography technologies for functional neuroimaging of newborns. , 2021, , .		0
58	Optimum selection of individual-level neonatal models in place of subject-specific priors for infant diffuse optical tomography. , 2021, , .		0
59	Evaluating a new generation of wearable high-density diffuse optical tomography (HD-DOT) technology via retinotopic mapping in the adult brain. , 2021, , .		0