Robert J Cooper

List of Publications by Year
in descending order

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	Widespread nociceptive maps in the human neonatal somatosensory cortex. ELife, 2022, 11, .	2.8	8
2	Smartphone-based photogrammetry provides improved localization and registration of scalp-mounted neuroimaging sensors. Scientific Reports, 2022, 12, .	1.6	14
3	Construction and validation of a database of head models for functional imaging of the neonatal brain. Human Brain Mapping, 2021, 42, 567-586.	1.9	8
4	Functional imaging of the developing brain with wearable high-density diffuse optical tomography: A new benchmark for infant neuroimaging outside the scanner environment. NeuroImage, 2021, 225, 117490.	2.1	46
5	Best practices for fNIRS publications. Neurophotonics, 2021, 8, 012101.	1.7	142
6	Design and validation of a mechanically flexible and ultra-lightweight high-density diffuse optical tomography system for functional neuroimaging of newborns. Neurophotonics, 2021, 8, 015011.	1.7	15
7	Evaluating a new generation of wearable high-density diffuse optical tomography technology via retinotopic mapping of the adult visual cortex. Neurophotonics, 2021, 8, 025002.	1.7	18
8	Group-level cortical functional connectivity patterns using fNIRS: assessing the effect of bilingualism in young infants. Neurophotonics, 2021, 8, 025011.	1.7	14
9	Longitudinal infant fNIRS channel-space analyses are robust to variability parameters at the group-level: An image reconstruction investigation. NeuroImage, 2021, 237, 118068.	2.1	12
10	Wearable, Integrated EEGâ€“fNIRS Technologies: A Review. Sensors, 2021, 21, 6106.	2.1	38
11	Pre-SMA activation and the perception of contagiousness and authenticity in laughter sounds. Cortex, 2021, 143, 57-68.	1.1	10
12	ANIMATE: wearable, flexible, and ultra-lightweight high-density diffuse optical tomography technologies for functional neuroimaging of newborns. , 2021, , .		0
13	Optimum selection of individual-level neonatal models in place of subject-specific priors for infant diffuse optical tomography. , 2021, , .		0
14	Evaluating a new generation of wearable high-density diffuse optical tomography (HD-DOT) technology via retinotopic mapping in the adult brain. , 2021, , .		0
15	Sleep State Modulates Resting-State Functional Connectivity in Neonates. Frontiers in Neuroscience, 2020, 14, 347.	1.4	16
16	A wide field-of-view, modular, high-density diffuse optical tomography system for minimally constrained three-dimensional functional neuroimaging. Biomedical Optics Express, 2020, 11, 4110.	1.5	17
17	Dual wavelength spread-spectrum time-resolved diffuse optical instrument for the measurement of human brain functional responses. Biomedical Optics Express, 2020, 11, 3477.	1.5	1
18	Wearable High-Density Diffuse Optical Tomography (HD-DOT) for Unrestricted 3D Functional Neuroimaging. , 2020, , .		1

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19	Diffuse optical tomography for the detection of perinatal stroke at the cot side: a pilot study. Pediatric Research, 2019, 85, 1001-1007.	1.1	9
20	Mapping hemodynamic changes during hypoglycemia in the very preterm neonatal brain: preliminary results. , 2019, , .		1
21	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
22	Integrating motion sensing and wearable, modular high-density diffuse optical tomography: preliminary results. , 2019, , .		4
23	Adaptive motor cortex plasticity following grip reconstruction in individuals with tetraplegia. Restorative Neurology and Neuroscience, 2018, 36, 73-82.	0.4	9
24	Array Designer: automated optimized array design for functional near-infrared spectroscopy. Neurophotonics, 2018, 5, 1.	1.7	25
25	Diffuse optical tomography to investigate the newborn brain. Pediatric Research, 2017, 82, 376-386.	1.1	45
26	Image reconstruction of oxidized cerebral cytochrome C oxidase changes from broadband near-infrared spectroscopy data. Neurophotonics, 2017, 4, 021105.	1.7	17
27	Functional NIRS Measurement of Cytochrome-C-Oxidase Demonstrates a More Brain-Specific Marker of Frontal Lobe Activation Compared to the Haemoglobins. Advances in Experimental Medicine and Biology, 2017, 977, 141-147.	0.8	22
28	Review of recent progress toward a fiberless, whole-scalp diffuse optical tomography system. Neurophotonics, 2017, 5, 1.	1.7	76
29	Functional imaging of the human brain using a modular, fibre-less, high-density diffuse optical tomography system. Biomedical Optics Express, 2016, 7, 4275.	1.5	67
30	Towards a wearable near infrared spectroscopic probe for monitoring concentrations of multiple chromophores in biological tissue in vivo. Review of Scientific Instruments, 2016, 87, 065112.	0.6	44
31	Hemodynamic response to burst-suppressed and discontinuous electroencephalography activity in infants with hypoxic ischemic encephalopathy. Neurophotonics, 2016, 3, 1.	1.7	25
32	Cytochrome-C-Oxidase Exhibits Higher Brain-Specificity than Haemoglobin in Functional Activation. , 2016, , .		4
33	Mapping Cortical Responses to Somatosensory Stimuli in Human Infants with Simultaneous Near-Infrared Spectroscopy and Event-Related Potential Recording. ENeuro, 2016, 3, ENEURO.0026-16.2016.	0.9	51
34	Real-time dynamic image reconstruction in time-domain diffuse optical tomography. , 2016, , .		0
35	Evaluating real-time image reconstruction in diffuse optical tomography using physiologically realistic test data. Biomedical Optics Express, 2015, 6, 4719.	1.5	10
36	Anatomical guidance for functional near-infrared spectroscopy: AtlasViewer tutorial. Neurophotonics, 2015, 2, 020801.	1.7	269

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37	Whole-head functional brain imaging of neonates at cot-side using time-resolved diffuse optical tomography. Proceedings of SPIE, 2015, , .	0.8	3
38	Dynamic image reconstruction in time-resolved diffuse optical tomography. Proceedings of SPIE, 2015, , .	0.8	2
39	Data-driven approach to optimum wavelength selection for diffuse optical imaging. Journal of Biomedical Optics, 2015, 20, 016003.	1.4	13
40	How short is short? Optimum sourceâ€“detector distance for short-separation channels in functional near-infrared spectroscopy. Neurophotonics, 2015, 2, 025005.	1.7	218
41	Whole-head functional brain imaging of neonates at cot-side using time-resolved diffuse optical tomography. , 2015, , .		2
42	Targeted principle component analysis: A new motion artifact correction approach for near-infrared spectroscopy. Journal of Innovative Optical Health Sciences, 2014, 07, 1350066.	0.5	94
43	Performance assessment of time-domain optical brain imagers, part 1: basic instrumental performance protocol. Journal of Biomedical Optics, 2014, 19, 086010.	1.4	101
44	MONSTIR II: A 32-channel, multispectral, time-resolved optical tomography system for neonatal brain imaging. Review of Scientific Instruments, 2014, 85, 053105.	0.6	50
45	Reducing motion artifacts for long-term clinical NIRS monitoring using collodion-fixed prism-based optical fibers. NeuroImage, 2014, 85, 192-201.	2.1	66
46	A 4D neonatal head model for diffuse optical imaging of pre-term to term infants. NeuroImage, 2014, 100, 385-394.	2.1	61
47	Mapping cortical haemodynamics during neonatal seizures using diffuse optical tomography: A case study. NeuroImage: Clinical, 2014, 5, 256-265.	1.4	43
48	Watching the brain at work. Nature Photonics, 2014, 8, 425-426.	15.6	4
49	Motion artifacts in functional near-infrared spectroscopy: A comparison of motion correction techniques applied to real cognitive data. NeuroImage, 2014, 85, 181-191.	2.1	397
50	Further improvement in reducing superficial contamination in NIRS using double short separation measurements. NeuroImage, 2014, 85, 127-135.	2.1	169
51	Simultaneous EEG and diffuse optical imaging of seizure-related hemodynamic activity in the newborn infant brain. Proceedings of SPIE, 2012, , .	0.8	0
52	Quantifying the cortical contribution to the NIRS signal using simultaneous NIRS-BOLD measurements. , 2012, , .		0
53	Validating atlas-guided DOT: A comparison of diffuse optical tomography informed by atlas and subject-specific anatomies. NeuroImage, 2012, 62, 1999-2006.	2.1	81
54	Short separation channel location impacts the performance of short channel regression in NIRS. NeuroImage, 2012, 59, 2518-2528.	2.1	306

#	Article	IF	Citations
55	Quantification of the cortical contribution to the NIRS signal over the motor cortex using concurrent NIRS-fMRI measurements. NeuroImage, 2012, 59, 3933-3940.	2.1	182
56	The utility of near-infrared spectroscopy in the regression of low-frequency physiological noise from functional magnetic resonance imaging data. NeuroImage, 2012, 59, 3128-3138.	2.1	37
57	A Systematic Comparison of Motion Artifact Correction Techniques for Functional Near-Infrared Spectroscopy. Frontiers in Neuroscience, 2012, 6, 147.	1.4	304
58	Transient haemodynamic events in neurologically compromised infants: A simultaneous EEG and diffuse optical imaging study. NeuroImage, 2011, 55, 1610-1616.	2.1	38
59	A tissue equivalent phantom for simultaneous near-infrared optical tomography and EEG. Biomedical Optics Express, 2010, 1, 425.	1.5	13