Hiroki Sato

List of Publications by Year
in descending order

59 papers	2,208 citations	304743 22 h-index	223800 46 g-index
64 all docs	64 docs citations	64 times ranked	2074 citing authors

#	Article	IF	Citations
1	A NIRS–fMRI investigation of prefrontal cortex activity during a working memory task. NeuroImage, 2013, 83, 158-173.	4.2	290
2	Synchronous activity of two people's prefrontal cortices during a cooperative task measured by simultaneous near-infrared spectroscopy. Journal of Biomedical Optics, 2011, 16, 077011.	2.6	162
3	Cerebral hemodynamics in newborn infants exposed to speech sounds: A whole-head optical topography study. Human Brain Mapping, 2012, 33, 2092-2103.	3.6	141
4	Quantitative evaluation of deep and shallow tissue layers' contribution to fNIRS signal using multi-distance optodes and independent component analysis. NeuroImage, 2014, 85, 150-165.	4.2	136
5	Quantitative evaluation of interrelations between spontaneous low-frequency oscillations in cerebral hemodynamics and systemic cardiovascular dynamics. NeuroImage, 2006, 31, 1592-1600.	4.2	134
6	Optical topography: practical problems and new applications. Applied Optics, 2003, 42, 3054.	2.1	133
7	Temporal cortex activation during speech recognition: an optical topography study. Cognition, 1999, 73, B55-B66.	2.2	125
8	Task-related component analysis for functional neuroimaging and application to near-infrared spectroscopy data. NeuroImage, 2013, 64, 308-327.	4.2	112
9	Intersubject variability of near-infrared spectroscopy signals during sensorimotor cortex activation. Journal of Biomedical Optics, 2005, 10, 044001.	2.6	95
10	Development of wearable optical topography system for mapping the prefrontal cortex activation. Review of Scientific Instruments, 2009, 80, 043704.	1.3	75
11	Relationship of negative mood with prefrontal cortex activity during working memory tasks: An optical topography study. Neuroscience Research, 2011, 70, 189-196.	1.9	71
12	Noninvasive imaging of prefrontal activation during attention-demanding tasks performed while walking using a wearable optical topography system. Journal of Biomedical Optics, 2010, 15, 046002.	2.6	65
13	Tutorial on platform for optical topography analysis tools. Neurophotonics, 2016, 3, 010801.	3.3	54
14	Within-subject reproducibility of near-infrared spectroscopy signals in sensorimotor activation after 6 months. Journal of Biomedical Optics, 2006, 11, 014021.	2.6	51
15	Wavelet analysis for detecting body-movement artifacts in optical topography signals. NeuroImage, 2006, 33, 580-587.	4.2	50
16	Extracting task-related activation components from optical topography measurement using independent components analysis. Journal of Biomedical Optics, 2008, 13, 054008.	2.6	44
17	Task-related oxygenation and cerebral blood volume changes estimated from NIRS signals in motor and cognitive tasks. NeuroImage, 2014, 94, 107-119.	4.2	44
18	Correlation of within-individual fluctuation of depressed mood with prefrontal cortex activity during verbal working memory task: optical topography study. Journal of Biomedical Optics, 2011, 16, 126007.	2.6	41

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19	Application of near-infrared spectroscopy to measurement of hemodynamic signals accompanying stimulated saliva secretion. Journal of Biomedical Optics, 2011, 16, 047002.	2.6	30
20	Replication of the correlation between natural mood states and working memory-related prefrontal activity measured by near-infrared spectroscopy in a German sample. Frontiers in Human Neuroscience, 2014, 8, 37.	2.0	27
21	EEG in classroom: EMD features to detect situational interest of students during learning. Multimedia Tools and Applications, 2019, 78, 16261-16281.	3.9	25
22	Correlation between prefrontal cortex activity during working memory tasks and natural mood independent of personality effects: An optical topography study. Psychiatry Research - Neuroimaging, 2013, 212, 79-87.	1.8	24
23	Development of an Optical Brain-machine Interface. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 5338-41.	0.5	23
24	Comparison of light intensity on the brain surface due to laser exposure during optical topography and solar irradiation. Journal of Biomedical Optics, 2007, 12, 062108.	2.6	20
25	Concurrent fNIRS-fMRI measurement to validate a method for separating deep and shallow fNIRS signals by using multidistance optodes. Neurophotonics, 2015, 2, 015003.	3.3	19
26	Effectiveness Evaluation of Real-Time Scalp Signal Separating Algorithm on Near-Infrared Spectroscopy Neurofeedback. IEEE Journal of Biomedical and Health Informatics, 2018, 22, 1148-1156.	6.3	17
27	Achieving affective human–virtual agent communication by enabling virtual agents to imitate positive expressions. Scientific Reports, 2020, 10, 5977.	3.3	17
28	Non-invasive brain-function imaging by optical topography. TrAC - Trends in Analytical Chemistry, 2005, 24, 147-156.	11.4	16
29	Development of a Multi-channel, Portable Optical Topography System. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 3362-4.	0.5	16
30	Denoising of neuronal signal from mixed systemic low-frequency oscillation using peripheral measurement as noise regressor in near-infrared imaging. Neurophotonics, 2019, 6, 1.	3.3	15
31	Effect of fMRI acoustic noise on sensorimotor activation examined using optical topography. NeuroImage, 2006, 32, 771-777.	4.2	14
32	Prefrontal Function Engaging in External-Focused Attention in 5- to 6-Month-Old Infants: A Suggestion for Default Mode Network. Frontiers in Human Neuroscience, 2016, 10, 676.	2.0	14
33	Relationship between wavelength combination and signal-to-noise ratio in measuring hemoglobin concentrations using visible or near-infrared light. Optical Review, 2009, 16, 442-448.	2.0	11
34	Rearrangeable and exchangeable optical module with system-on-chip for wearable functional near-infrared spectroscopy system. Neurophotonics, 2017, 5, 1.	3.3	11
35	Intrinsic correlations of electroencephalography rhythms with cerebral hemodynamics during sleep transitions. NeuroImage, 2008, 42, 357-368.	4.2	10
36	Multiple-Time-Scale Analysis of Attention as Revealed by EEG, NIRS, and Pupil Diameter Signals During a Free Recall Task: A Multimodal Measurement Approach. Frontiers in Neuroscience, 2019, 13, 1307.	2.8	10

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37	Comprehension‐Dependent Cortical Activation During Speech Comprehension Tasks with Multiple Languages: Functional Near‐Infrared Spectroscopy Study. Japanese Psychological Research, 2018, 60, 300-310.	1.1	9
38	Effects of attentional behaviours on infant visual preferences and object choice. Cognitive Processing, 2019, 20, 317-324.	1.4	9
39	Exploring attentive task-based connectivity for screening attention deficit/hyperactivity disorder children: a functional near-infrared spectroscopy study. Neurophotonics, 2019, 6, 1.	3.3	9
40	Wavelength Dependence of Effective Pathlength Factor in Noninvasive Optical Measurements of Human Brain Functions. Japanese Journal of Applied Physics, 2006, 45, L361-L363.	1.5	8
41	Relationship between hemodynamic alteration and sympathetic nerve activation following a single oral dose of cinnamtannin A2. Free Radical Research, 2021, 55, 491-498.	3.3	4
42	Adaptive algorithm utilizing acceptance rate for eliminating noisy epochs in block-design functional near-infrared spectroscopy data: application to study in attention deficit/hyperactivity disorder children. Neurophotonics, 2018, 5, 1.	3.3	4
43	Impact of short-term oral dose of cinnamtannin A2, an (â˜)-epicatechin tetramer, on spatial memory and adult hippocampal neurogenesis in mouse. Biochemical and Biophysical Research Communications, 2021, 585, 1-7.	2.1	4
44	Development of Portable Optical Topography System. , 2007, , .		3
45	A novel measurand independent of the distance between the source and detector for continuous wave near-infrared spectroscopy. Review of Scientific Instruments, 2017, 88, 064301.	1.3	3
46	Studying the Effect of Lecture Content on Students' EEG data in Classroom using SVD. , 2018, , .		3
47	Using a Data-Driven Approach to Estimate Second-Language Proficiency From Brain Activation: A Functional Near-Infrared Spectroscopy Study. Frontiers in Neuroscience, 2020, 14, 694.	2.8	2
48	Prefrontal cortex activation of return-to-work trainees in remission of mental disorders with depressive symptoms compared to that of healthy controls. Journal of Biomedical Optics, 2019, 24, 1.	2.6	2
49	Comparison between Spontaneous Low-Frequency Oscillations in Regional Cerebral Blood Volume, and Cerebral and Plethysmographic Pulsations. AIP Conference Proceedings, 2007, , .	0.4	1
50	Technique for designing and evaluating probe caps used in optical topography of infants using a real head model based on three dimensional magnetic resonance images. Review of Scientific Instruments, 2008, 79, 066106.	1.3	1
51	Relationship Between Subjective Ratings of Answers and Behavioral and Autonomic Nervous Activities During Creative Problem-Solving via Online Conversation. Frontiers in Neuroscience, 2021, 15, 724679.	2.8	1
52	Optical Topography and Brain Science. Journal of the Japan Society for Precision Engineering, 2008, 74, 1147-1151.	0.1	1
53	Multi-wavelength measurement of cytochrome oxidase and water in biomedical tissues using optical topography system. , 2009, , .		0
54	Origins of spontaneous slow oscillations in cerebral hemodynamics in the rensing state. Neuroscience Research, 2010, 68, e178.	1.9	0

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55	Relationship between affective personality and prefrontal cortex activity during working memory tasks: an optical topography study. Neuroscience Research, 2010, 68, e299.	1.9	0
56	Within-individual fluctuation of depressed mood is correlated with prefrontal cortex activity during working memory task: An optical topography study. Neuroscience Research, 2011, 71, e73.	1.9	0
57	A semi-learning algorithm for noise rejection: an fNIRS study on ADHD children. , 2017, , .		0
58	Evaluating Responses of Circulatory Systems, Sweating and Pupil Diameter to Postural Change. IEEJ Transactions on Electronics, Information and Systems, 2018, 138, 1141-1147.	0.2	0
59	Data Analysis Method for Neuroimaging Data: Task-Related Component Analysis and Its Applications to fNIRS Data. Brain Informatics and Health, 2020, , 149-173.	0.4	0