Ilkka T NissilÃ¤

List of Publications by Year
in descending order

39 papers	1,079 citations	516710 16 h-index	526287 27 g-index
39 all docs	39 docs citations	39 times ranked	1069 citing authors

#	Article	IF	Citations
1	A Model-Based Iterative Learning Approach for Diffuse Optical Tomography. IEEE Transactions on Medical Imaging, 2022, 41, 1289-1299.	8.9	17
2	Imaging affective and non-affective touch processing in two-year-old children. NeuroImage, 2022, 251, 118983.	4.2	4
3	Relationship between maternal pregnancy-related anxiety and infant brain responses to emotional speech â€“ a pilot study. Journal of Affective Disorders, 2020, 262, 62-70.	4.1	8
4	Hemodynamic responses to emotional speech in two-month-old infants imaged using diffuse optical tomography. Scientific Reports, 2019, 9, 4745.	3.3	10
5	Affective and non-affective touch evoke differential brain responses in 2-month-old infants. NeuroImage, 2018, 169, 162-171.	4.2	111
6	Emotional Processing in the First 2 Years of Life: A Review of Nearâ€Infrared Spectroscopy Studies. Journal of Neuroimaging, 2018, 28, 441-454.	2.0	11
7	Nonlinear approach to difference imaging in diffuse optical tomography. Journal of Biomedical Optics, 2015, 20, 105001.	2.6	8
8	High-Density Diffuse Optical Imaging of Total Hemoglobin Changes to Emotionally Valenced Speech in Two-Month Old Infants. , 2014, , .		0
9	Effect of task-related extracerebral circulation on diffuse optical tomography: experimental data and simulations on the forehead. Biomedical Optics Express, 2013, 4, 412.	2.9	14
10	State space regularization in the nonstationary inverse problem for diffuse optical tomography. Inverse Problems, 2011, 27, 025009.	2.0	17
11	Magnetic-Stimulation-Related Physiological Artifacts in Hemodynamic Near-Infrared Spectroscopy Signals. PLoS ONE, 2011, 6, e24002.	2.5	17
12	Hemodynamic responses to speech and music in newborn infants. Human Brain Mapping, 2010, 31, 595-603.	3.6	93
13	Correlation of visual-evoked hemodynamic responses and potentials in human brain. Experimental Brain Research, 2010, 202, 561-570.	1.5	26
14	Effects of improper source coupling in frequency-domain near-infrared spectroscopy. Physics in Medicine and Biology, 2010, 55, 2941-2960.	3.0	9
15	3D level set reconstruction of model and experimental data in Diffuse Optical Tomography. Optics Express, 2010, 18, 150.	3.4	20
16	Two Approaches for Using Anatomical Atlas Information for Image Reconstruction in Optical Tomography of Neonates. , 2010, , .		0
17	Approximation errors and model reduction in three-dimensional diffuse optical tomography. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2009, 26, 2257.	1.5	45
18	Probabilistic atlas can improve reconstruction from optical imaging of the neonatal brain. Optics Express, 2009, 17, 14977.	3.4	26

#	Article	IF	Citations
19	Significance of background optical properties, time-resolved information and optode arrangement in diffuse optical imaging of term neonates. Physics in Medicine and Biology, 2009, 54, 535-554.	3.0	46
20	Study of neurovascular coupling in humans via simultaneous magnetoencephalography and diffuse optical imaging acquisition. NeuroImage, 2009, 46, 624-632.	4.2	46
21	Coupling between somatosensory evoked potentials and hemodynamic response in the rat. NeuroImage, 2008, 41, 189-203.	4.2	73
22	Study of Neurovascular Coupling via Simultaneous MEG DOI Acquisition. , 2008, , .		1
23	Optical tomographic imaging of activation of the infant auditory cortex using perturbation Monte Carlo with anatomical a priori information. , 2007, , .		3
24	Significance of tissue anisotropy in optical tomography of the infant brain. Applied Optics, 2007, 46, 1633.	2.1	13
25	Image reconstruction in optical tomography in the presence of coupling errors. Applied Optics, 2007, 46, 2743.	2.1	46
26	Comparison between a time-domain and a frequency-domain system for optical tomography. Journal of Biomedical Optics, 2006, 11, 064015.	2.6	21
27	Evaluation of Phase Signals in Quantitative Near- Infrared Spectroscopy. , 2006, , .		0
28	Diffuse Optical Imaging. , 2005, , 77-129.		11
29	Simultaneous diffuse near-infrared imaging of hemodynamic and oxygenation changes and electroencephalographic measurements of neuronal activity in the human brain. , 2005, , .		3
30	Bilateral hemodynamic responses to auditory stimulation in newborn infants. NeuroReport, 2005, 16, 1373-1377.	1.2	54
31	Near-infrared spectroscopic imaging of stimulus-related hemodynamic responses on the neonatal auditory cortices. , 2005, , .		1
32	Instrumentation and calibration methods for the multichannel measurement of phase and amplitude in optical tomography. Review of Scientific Instruments, 2005, 76, 044302.	1.3	55
33	An application of perturbation Monte Carlo in optical tomography. , 2005, 2006, 274-7.		2
34	Modeling anisotropic light propagation in a realistic model of the human head. Applied Optics, 2005, 44, 2049.	2.1	26
35	Gaussâ€“Newton method for image reconstruction in diffuse optical tomography. Physics in Medicine and Biology, 2005, 50, 2365-2386.	3.0	189
36	Multi-channel near-infrared spectroscopy on the human forehead during hypo- and hypercapnia. , 2004, , .		0

#	Article	IF	Citations
37	Optical topographic studies of adults and neonates. , 2003, , .		2
38	Near-infrared measurements of hemodynamic and oxygenation changes on the frontal cortex during breath holding, hyperventilation, and natural sleep. , 2003, , .		3
39	Instrumentation for the accurate measurement of phase and amplitude in optical tomography. Review of Scientific Instruments, 2002, 73, 3306-3312.	1.3	48