

Ilkka T Nissilä

List of Publications by Year in descending order

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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	Gaussâ€“Newton method for image reconstruction in diffuse optical tomography. <i>Physics in Medicine and Biology</i> , 2005, 50, 2365-2386.	3.0	189
2	Affective and non-affective touch evoke differential brain responses in 2-month-old infants. <i>NeuroImage</i> , 2018, 169, 162-171.	4.2	111
3	Hemodynamic responses to speech and music in newborn infants. <i>Human Brain Mapping</i> , 2010, 31, 595-603.	3.6	93
4	Coupling between somatosensory evoked potentials and hemodynamic response in the rat. <i>NeuroImage</i> , 2008, 41, 189-203.	4.2	73
5	Instrumentation and calibration methods for the multichannel measurement of phase and amplitude in optical tomography. <i>Review of Scientific Instruments</i> , 2005, 76, 044302.	1.3	55
6	Bilateral hemodynamic responses to auditory stimulation in newborn infants. <i>NeuroReport</i> , 2005, 16, 1373-1377.	1.2	54
7	Instrumentation for the accurate measurement of phase and amplitude in optical tomography. <i>Review of Scientific Instruments</i> , 2002, 73, 3306-3312.	1.3	48
8	Image reconstruction in optical tomography in the presence of coupling errors. <i>Applied Optics</i> , 2007, 46, 2743.	2.1	46
9	Significance of background optical properties, time-resolved information and optode arrangement in diffuse optical imaging of term neonates. <i>Physics in Medicine and Biology</i> , 2009, 54, 535-554.	3.0	46
10	Study of neurovascular coupling in humans via simultaneous magnetoencephalography and diffuse optical imaging acquisition. <i>NeuroImage</i> , 2009, 46, 624-632.	4.2	46
11	Approximation errors and model reduction in three-dimensional diffuse optical tomography. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2009, 26, 2257.	1.5	45
12	Modeling anisotropic light propagation in a realistic model of the human head. <i>Applied Optics</i> , 2005, 44, 2049.	2.1	26
13	Probabilistic atlas can improve reconstruction from optical imaging of the neonatal brain. <i>Optics Express</i> , 2009, 17, 14977.	3.4	26
14	Correlation of visual-evoked hemodynamic responses and potentials in human brain. <i>Experimental Brain Research</i> , 2010, 202, 561-570.	1.5	26
15	Comparison between a time-domain and a frequency-domain system for optical tomography. <i>Journal of Biomedical Optics</i> , 2006, 11, 064015.	2.6	21
16	3D level set reconstruction of model and experimental data in Diffuse Optical Tomography. <i>Optics Express</i> , 2010, 18, 150.	3.4	20
17	State space regularization in the nonstationary inverse problem for diffuse optical tomography. <i>Inverse Problems</i> , 2011, 27, 025009.	2.0	17
18	Magnetic-Stimulation-Related Physiological Artifacts in Hemodynamic Near-Infrared Spectroscopy Signals. <i>PLoS ONE</i> , 2011, 6, e24002.	2.5	17

#	ARTICLE	IF	CITATIONS
19	A Model-Based Iterative Learning Approach for Diffuse Optical Tomography. IEEE Transactions on Medical Imaging, 2022, 41, 1289-1299.	8.9	17
20	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
21	Significance of tissue anisotropy in optical tomography of the infant brain. Applied Optics, 2007, 46, 1633.	2.1	13
22	Diffuse Optical Imaging. , 2005, , 77-129.		11
23	Emotional Processing in the First 2 Years of Life: A Review of Near-Infrared Spectroscopy Studies. Journal of Neuroimaging, 2018, 28, 441-454.	2.0	11
24	Hemodynamic responses to emotional speech in two-month-old infants imaged using diffuse optical tomography. Scientific Reports, 2019, 9, 4745.	3.3	10
25	Effects of improper source coupling in frequency-domain near-infrared spectroscopy. Physics in Medicine and Biology, 2010, 55, 2941-2960.	3.0	9
26	Nonlinear approach to difference imaging in diffuse optical tomography. Journal of Biomedical Optics, 2015, 20, 105001.	2.6	8
27	Relationship between maternal pregnancy-related anxiety and infant brain responses to emotional speech – a pilot study. Journal of Affective Disorders, 2020, 262, 62-70.	4.1	8
28	Imaging affective and non-affective touch processing in two-year-old children. NeuroImage, 2022, 251, 118983.	4.2	4
29	Near-infrared measurements of hemodynamic and oxygenation changes on the frontal cortex during breath holding, hyperventilation, and natural sleep. , 2003, , .		3
30	Simultaneous diffuse near-infrared imaging of hemodynamic and oxygenation changes and electroencephalographic measurements of neuronal activity in the human brain. , 2005, , .		3
31	Optical tomographic imaging of activation of the infant auditory cortex using perturbation Monte Carlo with anatomical a priori information. , 2007, , .		3
32	Optical topographic studies of adults and neonates. , 2003, , .		2
33	An application of perturbation Monte Carlo in optical tomography. , 2005, 2006, 274-7.		2
34	Near-infrared spectroscopic imaging of stimulus-related hemodynamic responses on the neonatal auditory cortices. , 2005, , .		1
35	Study of Neurovascular Coupling via Simultaneous MEG DOI Acquisition. , 2008, , .		1
36	Multi-channel near-infrared spectroscopy on the human forehead during hypo- and hypercapnia. , 2004, , .		0

#	ARTICLE	IF	CITATIONS
37	Evaluation of Phase Signals in Quantitative Near- Infrared Spectroscopy. , 2006, , .		0
38	Two Approaches for Using Anatomical Atlas Information for Image Reconstruction in Optical Tomography of Neonates. , 2010, , .		0
39	High-Density Diffuse Optical Imaging of Total Hemoglobin Changes to Emotionally Valenced Speech in Two-Month Old Infants. , 2014, , .		0