Jussi Tohka

List of Publications by Year
in descending order

110 papers	4,220 citations	186209 28 h-index	128225 60 g-index
131 all docs	131 docs citations	131 times ranked	6031 citing authors

#	ARTICLE	IF	CITATIONS
1	Convolutional Neural Networks Enable Robust Automatic Segmentation of the Rat Hippocampus in MRI After Traumatic Brain Injury. Frontiers in Neurology, 2022, 13, 820267.	1.1	8
2	gACSON software for automated segmentation and morphology analyses of myelinated axons in 3D electron microscopy. Computer Methods and Programs in Biomedicine, 2022, 220, 106802.	2.6	6
3	Contribution of astrocytes to familial risk and clinical manifestation of schizophrenia. Glia, 2022, 70, 650-660.	2.5	12
4	Hippocampal position and orientation as prognostic biomarkers for posttraumatic epileptogenesis: An experimental study in a rat lateral fluid percussion model. Epilepsia, 2022, , .	2.6	1
5	The role of the meningeal lymphatic system in local meningeal inflammation and trigeminal nociception. Scientific Reports, 2022, 12, .	1.6	9
6	Searching for Predictors of Migraine Chronification: a Pilot Study of 1911A>G Polymorphism of TRPV1 Gene in Episodic Versus Chronic Migraine. Journal of Molecular Neuroscience, 2021, 71, 618-624.	1.1	23
7	Neural-level associations of non-verbal pragmatic comprehension in young Finnish autistic adults. International Journal of Circumpolar Health, 2021, 80, 1909333.	0.5	4
8	Cylindrical Shape Decomposition for 3D Segmentation of Tubular Objects. IEEE Access, 2021, 9, 23979-23995.	2.6	5
9	DeepACSON automated segmentation of white matter in 3D electron microscopy. Communications Biology, 2021, 4, 179.	2.0	30
10	Quantitative Longitudinal Predictions of Alzheimer's Disease by Multi-Modal Predictive Learning. Journal of Alzheimer's Disease, 2021, 79, 1533-1546.	1.2	2
11	Automated joint skull-stripping and segmentation with Multi-Task U-Net in large mouse brain MRI databases. NeuroImage, 2021, 229, 117734.	2.1	22
12	Transfer Learning in Magnetic Resonance Brain Imaging: A Systematic Review. Journal of Imaging, 2021, 7, 66.	1.7	56
13	Evaluation of machine learning algorithms for health and wellness applications: A tutorial. Computers in Biology and Medicine, 2021, 132, 104324.	3.9	56
14	Acute thalamic damage as a prognostic biomarker for post‐traumatic epileptogenesis. Epilepsia, 2021, 62, 1852-1864.	2.6	14
15	Comparison of Single and Multitask Learning for Predicting Cognitive Decline Based on MRI Data. IEEE Access, 2021, 9, 154275-154291.	2.6	2
16	ADHD desynchronizes brain activity during watching a distracted multi-talker conversation. NeuroImage, 2020, 216, 116352.	2.1	25
17	Structural Brain Imaging Phenotypes of Mild Cognitive Impairment (MCI) and Alzheimer's Disease (AD) Found by Hierarchical Clustering. International Journal of Alzheimer's Disease, 2020, 2020, 1-13.	1.1	8
18	BV-2 Microglial Cells Overexpressing C9orf72 Hexanucleotide Repeat Expansion Produce DPR Proteins and Show Normal Functionality but No RNA Foci. Frontiers in Neurology, 2020, 11, 550140.	1.1	4

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19	RatLesNetv2: A Fully Convolutional Network for Rodent Brain Lesion Segmentation. Frontiers in Neuroscience, 2020, 14, 610239.	1.4	15
20	Early Increase in Cortical T_2 Relaxation Is a Prognostic Biomarker for the Evolution of Severe Cortical Damage, but Not for Epileptogenesis, after Experimental Traumatic Brain Injury. Journal of Neurotrauma, 2020, 37, 2580-2594.	1.7	15
21	Regularized Bagged Canonical Component Analysis for Multiclass Learning in Brain Imaging. Neuroinformatics, 2020, 18, 641-659.	1.5	2
22	Elevated Acute Plasma miR-124-3p Level Relates to Evolution of Larger Cortical Lesion Area after Traumatic Brain Injury. Neuroscience, 2020, 433, 21-35.	1.1	15
23	Brain and behavioral alterations in subjects with social anxiety dominated by empathic embarrassment. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 4385-4391.	3.3	17
24	Multiscale Imaging Approach for Studying the Central Nervous System: Methodology and Perspective. Frontiers in Neuroscience, 2020, 14, 72.	1.4	7
25	Structural and functional alterations in the brain gray matter among first-degree relatives of schizophrenia patients: A multimodal meta-analysis of fMRI and VBM studies. Schizophrenia Research, 2020, 216, 14-23.	1.1	15
26	*In Vivo* Diffusion Tensor Imaging in Acute and Subacute Phases of Mild Traumatic Brain Injury in Rats. ENeuro, 2020, 7, ENEURO.0476-19.2020.	0.9	15
27	Bayesian receiver operating characteristic metric for linear classifiers. Pattern Recognition Letters, 2019, 128, 52-59.	2.6	2
28	O7.7. NEUROBIOLOGICAL ROOTS OF SCHIZOPHRENIA. Schizophrenia Bulletin, 2019, 45, S182-S182.	2.3	0
29	In Vitro and In Vivo Pipeline for Validation of Disease-Modifying Effects of Systems Biology-Derived Network Treatments for Traumatic Brain Injury—Lessons Learned. International Journal of Molecular Sciences, 2019, 20, 5395.	1.8	9
30	Sex-specific transcriptional and proteomic signatures in schizophrenia. Nature Communications, 2019, 10, 3933.	5.8	41
31	Harmonization of the pipeline for seizure detection to phenotype post-traumatic epilepsy in a preclinical multicenter study on post-traumatic epileptogenesis. Epilepsy Research, 2019, 156, 106131.	0.8	24
32	Automated 3D Axonal Morphometry of White Matter. Scientific Reports, 2019, 9, 6084.	1.6	46
33	Cortical and subcortical T1 white/gray contrast, chronological age, and cognitive performance. NeuroImage, 2019, 196, 276-288.	2.1	25
34	Sign-Consistency Based Variable Importance for Machine Learning in Brain Imaging. Neuroinformatics, 2019, 17, 593-609.	1.5	16
35	Informatics tools to assess the success of procedural harmonization in preclinical multicenter biomarker discovery study on post-traumatic epileptogenesis. Epilepsy Research, 2019, 150, 17-26.	0.8	5
36	Automatic Rodent Brain MRI Lesion Segmentation with Fully Convolutional Networks. Lecture Notes in Computer Science, 2019, , 195-202.	1.0	9

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37	Predicting Intelligence Based on Cortical WM/GM Contrast, Cortical Thickness and Volumetry. Lecture Notes in Computer Science, 2019, , 57-65.	1.0	1
38	T1 white/gray contrast as a predictor of chronological age, and an index of cognitive performance. NeuroImage, 2018, 173, 341-350.	2.1	72
39	Comparison of feature representations in MRI-based MCI-to-AD conversion prediction. Magnetic Resonance Imaging, 2018, 50, 84-95.	1.0	29
40	Antipsychotic and benzodiazepine use and brain morphology in schizophrenia and affective psychoses â€" Systematic reviews and birth cohort study. Psychiatry Research - Neuroimaging, 2018, 281, 43-52.	0.9	3
41	Rey's Auditory Verbal Learning Test scores can be predicted from whole brain MRI in Alzheimer's disease. NeuroImage: Clinical, 2017, 13, 415-427.	1.4	114
42	Functional brain segmentation using interâ€‑subject correlation in fMRI. Human Brain Mapping, 2017, 38, 2643-2665.	1.9	20
43	Long-term antipsychotic and benzodiazepine use and brain volume changes in schizophrenia: The Northern Finland Birth Cohort 1966 study. Psychiatry Research - Neuroimaging, 2017, 266, 73-82.	0.9	21
44	M89. Long-Term Antipsychotic and Benzodiazepine Use and Brain Volume Changes in Schizophrenia: The Northern Finland Birth Cohort 1966 Study. Schizophrenia Bulletin, 2017, 43, S243-S243.	2.3	0
45	Predicting symptom severity in autism spectrum disorder based on cortical thickness measures in agglomerative data. NeuroImage, 2017, 144, 128-141.	2.1	69
46	How Many Is Enough? Effect of Sample Size in Inter-Subject Correlation Analysis of fMRI. Computational Intelligence and Neuroscience, 2016, 2016, 1-10.	1.1	53
47	Simulation and Validation in Brain Image Analysis. Computational Intelligence and Neuroscience, 2016, 2016, 1-2.	1.1	1
48	Brain hemodynamic activity during viewing and re-viewing of comedy movies explained by experienced humor. Scientific Reports, 2016, 6, 27741.	1.6	43
49	Voxel importance in classifier ensembles based on sign consistency patterns: application to sMRI. , 2016, , .		2
50	Spectatorsâ€™ aesthetic experience of sound and movement in dance performance: A transdisciplinary investigation.. Psychology of Aesthetics, Creativity, and the Arts, 2016, 10, 42-55.	1.0	28
51	Comparison of manual and automatic techniques for substriatal segmentation in 11C-raclopride high-resolution PET studies. Nuclear Medicine Communications, 2016, 37, 1074-1087.	0.5	13
52	Comparison of Feature Selection Techniques in Machine Learning for Anatomical Brain MRI in Dementia. Neuroinformatics, 2016, 14, 279-296.	1.5	74
53	Model selection for linear classifiers using Bayesian error estimation. Pattern Recognition, 2015, 48, 3739-3748.	5.1	14
54	Standardized evaluation of algorithms for computer-aided diagnosis of dementia based on structural MRI: The CADDementia challenge. NeuroImage, 2015, 111, 562-579.	2.1	266

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55	NABS: non-local automatic brain hemisphere segmentation. Magnetic Resonance Imaging, 2015, 33, 474-484.	1.0	25
56	Prediction of brain maturity based on cortical thickness at different spatial resolutions. NeuroImage, 2015, 111, 350-359.	2.1	90
57	Differences in fMRI intersubject correlation while viewing unedited and edited videos of dance performance. Cortex, 2015, 71, 341-348.	1.1	34
58	Rigid-Body Registration. , 2015, , 301-305.		3
59	Machine learning framework for early MRI-based Alzheimer's conversion prediction in MCI subjects. NeuroImage, 2015, 104, 398-412.	2.1	544
60	A versatile software package for inter-subject correlation based analyses of fMRI. Frontiers in Neuroinformatics, 2014, 8, 2.	1.3	64
61	Partial volume effect modeling for segmentation and tissue classification of brain magnetic resonance images: A review. World Journal of Radiology, 2014, 6, 855.	0.5	66
62	Semi-supervised learning in MCI-to-ad conversion prediction &#x2014; When is unlabeled data useful?. , 2014, , .		4
63	Difference of Gaussians revolved along elliptical paths for ultrasound fetal head segmentation. Computerized Medical Imaging and Graphics, 2014, 38, 774-784.	3.5	22
64	Effects of spatial smoothing on inter-subject correlation based analysis of FMRI. Magnetic Resonance Imaging, 2014, 32, 1114-1124.	1.0	46
65	An automatic framework for quantitative validation of voxel based morphometry measures of anatomical brain asymmetry. NeuroImage, 2014, 100, 444-459.	2.1	11
66	Evaluation and Comparison of Current Fetal Ultrasound Image Segmentation Methods for Biometric Measurements: A Grand Challenge. IEEE Transactions on Medical Imaging, 2014, 33, 797-813.	5.4	137
67	Mind reading with regularized multinomial logistic regression. Machine Vision and Applications, 2013, 24, 1311-1325.	1.7	26
68	Bayesian error estimation and model selection in sparse logistic regression. , 2013, , .		4
69	Automatic statistical shape analysis of cerebral asymmetry in 3D T1-weighted magnetic resonance images at vertex-level: Application to neuroleptic-naÃ¯ve schizophrenia. Magnetic Resonance Imaging, 2013, 31, 676-687.	1.0	20
70	FAST-PVE: Extremely Fast Markov Random Field Based Brain MRI Tissue Classification. Lecture Notes in Computer Science, 2013, , 266-276.	1.0	4
71	The impact of sampling density upon cortical network analysis: regions or points. Magnetic Resonance Imaging, 2012, 30, 978-992.	1.0	11
72	Inter-Subject Correlation in fMRI: Method Validation against Stimulus-Model Based Analysis. PLoS ONE, 2012, 8, e41196.	1.1	74

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73	Imaging brain change across different time scales. Frontiers in Neuroinformatics, 2012, 6, 29.	1.3	6
74	Face Prediction from fMRI Data during Movie Stimulus: Strategies for Feature Selection. Lecture Notes in Computer Science, 2011, , 189-196.	1.0	4
75	Automatic cerebral and cerebellar hemisphere segmentation in 3D MRI: Adaptive disconnection algorithm. Medical Image Analysis, 2010, 14, 360-372.	7.0	26
76	Brain MRI tissue classification based on local Markov random fields. Magnetic Resonance Imaging, 2010, 28, 557-573.	1.0	58
77	Inter-subject correlation of brain hemodynamic responses during watching a movie: localization in space and frequency. Frontiers in Neuroinformatics, 2010, 4, 5.	1.3	141
78	Evaluation of automatic striatal segmentation for the ECAT HRRT images. , 2010, , .		0
79	Improved estimates of partial volume coefficients from noisy brain MRI using spatial context. NeuroImage, 2010, 53, 480-490.	2.1	46
80	Clustering inter-subject correlation matrices in functional magnetic resonance imaging. , 2010, , .		6
81	Segmentation of Striatal Brain Structures from High Resolution PET Images. International Journal of Biomedical Imaging, 2009, 2009, 1-12.	3.0	4
82	Shape Analysis of Human Brain Interhemispheric Fissure Bending in MRI. Lecture Notes in Computer Science, 2009, 12, 216-223.	1.0	5
83	Automatic Quantification of Fluorescence from Clustered Targets in Microscope Images. Lecture Notes in Computer Science, 2009, , 667-675.	1.0	2
84	Robust MRI brain tissue parameter estimation by multistage outlier rejection. Magnetic Resonance in Medicine, 2008, 59, 866-873.	1.9	52
85	Automatic independent component labeling for artifact removal in fMRI. NeuroImage, 2008, 39, 1227-1245.	2.1	202
86	Deconvolution-based partial volume correction in Raclopride-PET and Monte Carlo comparison to MR-based method. NeuroImage, 2008, 39, 1570-1584.	2.1	119
87	Joint penalized-likelihood reconstruction of time-activity curves and regions-of-interest from projection data in brain PET. Physics in Medicine and Biology, 2008, 53, 2877-2896.	1.6	5
88	Automatic compartmental decomposition for 3D MR images of human brain. , 2008, 2008, 3888-91.		1
89	Evaluation of the automatic three-dimensional delineation of caudate and putamen for PET receptor occupancy studies. Nuclear Medicine Communications, 2008, 29, 53-65.	0.5	8
90	STATISTICAL MODELING OF ATTENUATION-CORRECTED PET DATA WITH APPLICATION TO RECONSTRUCTION OF REGIONAL TIME ACTIVITY CURVES. , 2007, , .		0

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91	Genetic Algorithms for Finite Mixture Model Based Voxel Classification in Neuroimaging. IEEE Transactions on Medical Imaging, 2007, 26, 696-711.	5.4	87
92	Accurate 3D Left-Right Brain Hemisphere Segmentation in MR Images Based on Shape Bottlenecks and Partial Volume Estimation. , 2007, , 581-590.		4
93	Automatic Extraction of Caudate and Putamen in [^{11}C] Raclopride PET Using Deformable Surface Models and Normalized Cuts. IEEE Transactions on Nuclear Science, 2006, 53, 220-227.	1.2	19
94	Comparison of Image Segmentation and Registration Based Methods for Analysis of Misaligned Dynamic H152O Cardiac PET Images. , 2006, , .		0
95	A Monte Carlo study of deconvolution algorithms for partial volume correction in quantitative PET. , 2006, , .		9
96	Robust Estimation of Bioaffinity Assay Fluorescence Signals. IEEE Transactions on Information Technology in Biomedicine, 2006, 10, 733-739.	3.6	6
97	Unsupervised Segmentation of Cardiac PET Transmission Images for Automatic Heart Volume Extraction. , 2006, 2006, 1077-80.		11
98	A method for automatic extraction of striatal structures for dose-finding studies in PET. , 2006, , .		1
99	Assessment of Separation of Functional Components with ICA from Dynamic Cardiac Perfusion PET Phantom Images for Volume Extraction with Deformable Surface Models. Lecture Notes in Computer Science, 2005, , 338-347.	1.0	5
100	Adaptive edge detection based on 3D kernel functions for biomedical image analysis. , 2005, , .		2
101	Automatic extraction of brain surface and mid-sagittal plane from PET images applying deformable models. Computer Methods and Programs in Biomedicine, 2005, 79, 1-17.	2.6	25
102	AUTOMATED DIAGNOSIS OF BRAIN TUMOURS ASTROCYTOMAS USING PROBABILISTIC NEURAL NETWORK CLUSTERING AND SUPPORT VECTOR MACHINES. International Journal of Neural Systems, 2005, 15, 1-11.	3.2	44
103	PET-SORTEO: validation and development of database of Simulated PET volumes. IEEE Transactions on Nuclear Science, 2005, 52, 1321-1328.	1.2	74
104	GLOBAL DEFORMABLE SURFACE OPTIMIZATION USING ADAPTIVE CONSTRAINTS AND PENALTIES. Image Analysis and Stereology, 2005, 24, 9.	0.4	0
105	DEFORMABLE MESH FOR AUTOMATED SURFACE EXTRACTION FROM NOISY IMAGES. International Journal of Image and Graphics, 2004, 04, 405-432.	1.2	18
106	Assessment of brain surface extraction from PET images using Monte Carlo Simulations. IEEE Transactions on Nuclear Science, 2004, 51, 2641-2648.	1.2	9
107	Fast and robust parameter estimation for statistical partial volume models in brain MRI. NeuroImage, 2004, 23, 84-97.	2.1	607
108	Surface Extraction from Volumetric Images Using Deformable Meshes: A Comparative Study. Lecture Notes in Computer Science, 2002, , 350-364.	1.0	15

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109	Global optimization of deformable surface meshes based on genetic algorithms. , 0, , .		4
110	A new software tool for analyzing BOLD fMRI during movie watching. Frontiers in Neuroinformatics, 0, 3, .	1.3	0