

Koen Van Leemput

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

93
papers

7,578
citations

33
h-index

87
g-index

102
ext. papers

9,320
ext. citations

4.6
avg, IF

5.54
L-index

#	Paper	IF	Citations
93	Prediction of MGMT Methylation Status of Glioblastoma Using Radiomics and Latent Space Shape Features. <i>Lecture Notes in Computer Science</i> , 2022 , 222-231	0.9	0
92	JOINT SEGMENTATION OF MULTIPLE SCLEROSIS LESIONS AND BRAIN ANATOMY IN MRI SCANS OF ANY CONTRAST AND RESOLUTION WITH CNNs 2021 , 2021, 1971-1974	1.5	0
91	Cone beam computed tomography based image guidance and quality assessment of prostate cancer for magnetic resonance imaging-only radiotherapy in the pelvis. <i>Physics and Imaging in Radiation Oncology</i> , 2021 , 18, 55-60	3.1	2
90	A contrast-adaptive method for simultaneous whole-brain and lesion segmentation in multiple sclerosis. <i>NeuroImage</i> , 2021 , 225, 117471	7.9	16
89	A Contrast Augmentation Approach to Improve Multi-Scanner Generalization in MRI. <i>Frontiers in Neuroscience</i> , 2021 , 15, 708196	5.1	1
88	Reliability and sensitivity of two whole-brain segmentation approaches included in FreeSurfer - ASEG and SAMSEG. <i>NeuroImage</i> , 2021 , 237, 118113	7.9	3
87	Accurate and robust whole-head segmentation from magnetic resonance images for individualized head modeling. <i>NeuroImage</i> , 2020 , 219, 117044	7.9	14
86	A Longitudinal Method for Simultaneous Whole-Brain and Lesion Segmentation in Multiple Sclerosis. <i>Lecture Notes in Computer Science</i> , 2020 , 119-128	0.9	2
85	Semi-supervised Variational Autoencoder for Survival Prediction. <i>Lecture Notes in Computer Science</i> , 2020 , 124-134	0.9	
84	3D Reconstruction and Segmentation of Dissection Photographs for MRI-Free Neuropathology. <i>Lecture Notes in Computer Science</i> , 2020 , 204-214	0.9	1
83	PSACNN: Pulse sequence adaptive fast whole brain segmentation. <i>NeuroImage</i> , 2019 , 199, 553-569	7.9	17
82	Personalized Radiotherapy Design for Glioblastoma: Integrating Mathematical Tumor Models, Multimodal Scans, and Bayesian Inference. <i>IEEE Transactions on Medical Imaging</i> , 2019 , 38, 1875-1884	11.7	45
81	A modality-adaptive method for segmenting brain tumors and organs-at-risk in radiation therapy planning. <i>Medical Image Analysis</i> , 2019 , 54, 220-237	15.4	16
80	MR-based CT metal artifact reduction for head-and-neck photon, electron, and proton radiotherapy. <i>Medical Physics</i> , 2019 , 46, 4314-4323	4.4	4
79	Fast Nonparametric Mutual-Information-based Registration and Uncertainty Estimation. <i>Lecture Notes in Computer Science</i> , 2019 , 42-51	0.9	1
78	Relevance Vector Machines for Harmonization of MRI Brain Volumes Using Image Descriptors. <i>Lecture Notes in Computer Science</i> , 2019 , 77-85	0.9	0
77	Joint inference on structural and diffusion MRI for sequence-adaptive Bayesian segmentation of thalamic nuclei with probabilistic atlases. <i>Lecture Notes in Computer Science</i> , 2019 , 11492, 767-779	0.9	3

76	Magnetic resonance-based computed tomography metal artifact reduction using Bayesian modelling. <i>Physics in Medicine and Biology</i> , 2019 , 64, 245012	3.8	1
75	Systematic comparison of different techniques to measure hippocampal subfield volumes in ADNI2. <i>NeuroImage: Clinical</i> , 2018 , 17, 1006-1018	5.3	44
74	Characterization of highly multiplexed monolithic PET / gamma camera detector modules. <i>Physics in Medicine and Biology</i> , 2018 , 63, 075017	3.8	13
73	A probabilistic atlas of the human thalamic nuclei combining ex vivo MRI and histology. <i>NeuroImage</i> , 2018 , 183, 314-326	7.9	144
72	Skull segmentation from MR scans using a higher-order shape model based on convolutional restricted Boltzmann machines 2018 ,		1
71	CT metal artifact reduction using MR image patches 2018 ,		2
70	PET/MRI in the Presence of Metal Implants: Completion of the Attenuation Map from PET Emission Data. <i>Journal of Nuclear Medicine</i> , 2017 , 58, 840-845	8.9	22
69	A machine learning method for fast and accurate characterization of depth-of-interaction gamma cameras. <i>Physics in Medicine and Biology</i> , 2017 , 62, 8376-8401	3.8	14
68	High-resolution magnetic resonance imaging reveals nuclei of the human amygdala: manual segmentation to automatic atlas. <i>NeuroImage</i> , 2017 , 155, 370-382	7.9	151
67	Bayesian longitudinal segmentation of hippocampal substructures in brain MRI using subject-specific atlases. <i>NeuroImage</i> , 2016 , 141, 542-555	7.9	83
66	A Generative Probabilistic Model and Discriminative Extensions for Brain Lesion Segmentation--With Application to Tumor and Stroke. <i>IEEE Transactions on Medical Imaging</i> , 2016 , 35, 933-46	11.7	54
65	Regional Hippocampal Atrophy and Higher Levels of Plasma Amyloid-Beta Are Associated With Subjective Memory Complaints in Nondemented Elderly Subjects. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2016 , 71, 1210-5	6.4	37
64	Simultaneous Whole-Brain Segmentation and White Matter Lesion Detection Using Contrast-Adaptive Probabilistic Models. <i>Lecture Notes in Computer Science</i> , 2016 , 9-20	0.9	2
63	A patch-based pseudo-CT approach for MRI-only radiotherapy in the pelvis. <i>Medical Physics</i> , 2016 , 43, 4742	4.4	53
62	Computed tomography synthesis from magnetic resonance images in the pelvis using multiple random forests and auto-context features 2016 ,		14
61	Brain Tumor Segmentation Using a Generative Model with an RBM Prior on Tumor Shape. <i>Lecture Notes in Computer Science</i> , 2016 , 168-180	0.9	21
60	A generative model for segmentation of tumor and organs-at-risk for radiation therapy planning of glioblastoma patients 2016 ,		2
59	Fast and sequence-adaptive whole-brain segmentation using parametric Bayesian modeling. <i>NeuroImage</i> , 2016 , 143, 235-249	7.9	37

58	An algorithm for optimal fusion of atlases with different labeling protocols. <i>NeuroImage</i> , 2015 , 106, 451-463	7.9	12
57	Quantitative comparison of 21 protocols for labeling hippocampal subfields and parahippocampal subregions in in vivo MRI: towards a harmonized segmentation protocol. <i>NeuroImage</i> , 2015 , 111, 526-417	7.9	209
56	A computational atlas of the hippocampal formation using ex vivo, ultra-high resolution MRI: Application to adaptive segmentation of in vivo MRI. <i>NeuroImage</i> , 2015 , 115, 117-37	7.9	566
55	Bayesian segmentation of brainstem structures in MRI. <i>NeuroImage</i> , 2015 , 113, 184-95	7.9	108
54	Cone beam computed tomography guided treatment delivery and planning verification for magnetic resonance imaging only radiotherapy of the brain. <i>Acta Oncologica</i> , 2015 , 54, 1496-500	3.2	31
53	Patch-based generation of a pseudo CT from conventional MRI sequences for MRI-only radiotherapy of the brain. <i>Medical Physics</i> , 2015 , 42, 1596-605	4.4	99
52	The Multimodal Brain Tumor Image Segmentation Benchmark (BRATS). <i>IEEE Transactions on Medical Imaging</i> , 2015 , 34, 1993-2024	11.7	2132
51	4-D PET-MR with Volumetric Navigators and Compressed Sensing. <i>Lecture Notes in Computational Vision and Biomechanics</i> , 2015 , 93-101	0.3	1
50	Bayesian Tomographic Reconstruction Using Riemannian MCMC. <i>Lecture Notes in Computer Science</i> , 2015 , 619-626	0.9	1
49	A voxel-based investigation for MRI-only radiotherapy of the brain using ultra short echo times. <i>Physics in Medicine and Biology</i> , 2014 , 59, 7501-19	3.8	76
48	A cautionary analysis of STAPLE using direct inference of segmentation truth. <i>Lecture Notes in Computer Science</i> , 2014 , 17, 398-406	0.9	6
47	An Inference Language for Imaging. <i>Lecture Notes in Computer Science</i> , 2014 , 61-72	0.9	2
46	Improved inference in Bayesian segmentation using Monte Carlo sampling: application to hippocampal subfield volumetry. <i>Medical Image Analysis</i> , 2013 , 17, 766-78	15.4	33
45	A unified framework for cross-modality multi-atlas segmentation of brain MRI. <i>Medical Image Analysis</i> , 2013 , 17, 1181-91	15.4	41
44	Predicting the location of human perirhinal cortex, Brodmann's area 35, from MRI. <i>NeuroImage</i> , 2013 , 64, 32-42	7.9	59
43	Is synthesizing MRI contrast useful for inter-modality analysis?. <i>Lecture Notes in Computer Science</i> , 2013 , 16, 631-8	0.9	68
42	Fast, sequence adaptive parcellation of brain MR using parametric models. <i>Lecture Notes in Computer Science</i> , 2013 , 16, 727-34	0.9	8
41	A probabilistic, non-parametric framework for inter-modality label fusion. <i>Lecture Notes in Computer Science</i> , 2013 , 16, 576-83	0.9	1

40	On Feature Relevance in Image-Based Prediction Models: An Empirical Study. <i>Lecture Notes in Computer Science</i> , 2013 , 171-178	0.9	1
39	An Improved Optimization Method for the Relevance Voxel Machine. <i>Lecture Notes in Computer Science</i> , 2013 , 147-154	0.9	
38	The relevance voxel machine (RVoxM): a self-tuning Bayesian model for informative image-based prediction. <i>IEEE Transactions on Medical Imaging</i> , 2012 , 31, 2290-306	11.7	37
37	A GENERATIVE MODEL FOR MULTI-ATLAS SEGMENTATION ACROSS MODALITIES 2012 , 888-891	1.5	18
36	Incorporating parameter uncertainty in Bayesian segmentation models: application to hippocampal subfield volumetry. <i>Lecture Notes in Computer Science</i> , 2012 , 15, 50-7	0.9	6
35	A Generative Model for Probabilistic Label Fusion of Multimodal Data. <i>Lecture Notes in Computer Science</i> , 2012 , 7509, 115-133	0.9	11
34	A generative approach for image-based modeling of tumor growth. <i>Lecture Notes in Computer Science</i> , 2011 , 22, 735-47	0.9	40
33	Mild cognitive impairment: differential atrophy in the hippocampal subfields. <i>American Journal of Neuroradiology</i> , 2011 , 32, 1658-61	4.4	80
32	The Relevance Voxel Machine (RVoxM): a Bayesian method for image-based prediction. <i>Lecture Notes in Computer Science</i> , 2011 , 14, 99-106	0.9	15
31	Association of intramyocellular, intraperitoneal and liver fat with glucose tolerance in severely obese adolescents. <i>European Journal of Endocrinology</i> , 2010 , 163, 413-9	6.5	14
30	A generative model for brain tumor segmentation in multi-modal images. <i>Lecture Notes in Computer Science</i> , 2010 , 13, 151-9	0.9	103
29	A generative model for image segmentation based on label fusion. <i>IEEE Transactions on Medical Imaging</i> , 2010 , 29, 1714-29	11.7	353
28	Segmentation of image ensembles via latent atlases. <i>Medical Image Analysis</i> , 2010 , 14, 654-65	15.4	53
27	Cerebral measurements and their correlation with the onset age and the duration of opioid abuse. <i>Journal of Opioid Management</i> , 2010 , 6, 423-9	0.8	3
26	Subjects with intellectual disability and familial need for full-time special education show regional brain alterations: a voxel-based morphometry study. <i>Pediatric Research</i> , 2009 , 66, 306-11	3.2	7
25	Encoding probabilistic brain atlases using Bayesian inference. <i>IEEE Transactions on Medical Imaging</i> , 2009 , 28, 822-37	11.7	55
24	Automated segmentation of hippocampal subfields from ultra-high resolution in vivo MRI. <i>Hippocampus</i> , 2009 , 19, 549-57	3.5	331
23	Predicting the location of entorhinal cortex from MRI. <i>NeuroImage</i> , 2009 , 47, 8-17	7.9	78

22	Nonparametric Mixture Models for Supervised Image Parcellation 2009 , 12, 301-313		3
21	Asymmetric image-template registration. <i>Lecture Notes in Computer Science</i> , 2009 , 12, 565-73	0.9	22
20	Supervised nonparametric image parcellation. <i>Lecture Notes in Computer Science</i> , 2009 , 12, 1075-83	0.9	6
19	Joint segmentation of image ensembles via latent atlases. <i>Lecture Notes in Computer Science</i> , 2009 , 12, 272-80	0.9	2
18	JNCL patients show marked brain volume alterations on longitudinal MRI in adolescence. <i>Journal of Neurology</i> , 2008 , 255, 1226-30	5.5	17
17	Model-based segmentation of hippocampal subfields in ultra-high resolution in vivo MRI. <i>Lecture Notes in Computer Science</i> , 2008 , 11, 235-43	0.9	18
16	Thalami and corona radiata in juvenile NCL (CLN3): a voxel-based morphometric study. <i>European Journal of Neurology</i> , 2007 , 14, 447-50	6	17
15	Probabilistic brain atlas encoding using Bayesian inference. <i>Lecture Notes in Computer Science</i> , 2006 , 9, 704-11	0.9	13
14	Model-Based Brain Tissue Classification 2005 , 1-55		
13	A dosimetric study on the use of bolus materials for treatment of superficial tumors with BNCT. <i>Applied Radiation and Isotopes</i> , 2004 , 61, 787-91	1.7	13
12	A Cross-Platform Software Framework for Medical Image Processing. <i>Lecture Notes in Computer Science</i> , 2004 , 1091-1092	0.9	3
11	Automatic brain tumor segmentation by subject specific modification of atlas priors. <i>Academic Radiology</i> , 2003 , 10, 1341-8	4.3	192
10	A unifying framework for partial volume segmentation of brain MR images. <i>IEEE Transactions on Medical Imaging</i> , 2003 , 22, 105-19	11.7	190
9	Automatic Brain and Tumor Segmentation. <i>Lecture Notes in Computer Science</i> , 2002 , 372-379	0.9	34
8	Automated segmentation of multiple sclerosis lesions by model outlier detection. <i>IEEE Transactions on Medical Imaging</i> , 2001 , 20, 677-88	11.7	346
7	Validation of Nonlinear Spatial Filtering to Improve Tissue Segmentation of MR Brain Images. <i>Lecture Notes in Computer Science</i> , 2001 , 507-515	0.9	
6	A Statistical Framework for Partial Volume Segmentation. <i>Lecture Notes in Computer Science</i> , 2001 , 204-212		5
5	Automated model-based tissue classification of MR images of the brain. <i>IEEE Transactions on Medical Imaging</i> , 1999 , 18, 897-908	11.7	746

4	Automated model-based bias field correction of MR images of the brain. <i>IEEE Transactions on Medical Imaging</i> , 1999 , 18, 885-96	11.7	433
3	Automated Segmentation of MS Lesions from Multi-channel MR Images. <i>Lecture Notes in Computer Science</i> , 1999 , 11-21	0.9	11
2	Quantification of Cerebral Grey and White Matter Asymmetry from MRI. <i>Lecture Notes in Computer Science</i> , 1999 , 348-357	0.9	15
1	Automatic segmentation of brain tissues and MR bias field correction using a digital brain atlas. <i>Lecture Notes in Computer Science</i> , 1998 , 1222-1229	0.9	8