Koen Van Leemput

List of Publications by Year
in descending order

95 papers	11,095 citations	109137 35 h-index	54797 84 g-index
102 all docs	102 docs citations	102 times ranked	11714 citing authors

#	Article	IF	Citations
1	Prediction ofÂMGMT Methylation Status ofÂGlioblastoma Using Radiomics andÂLatent Space Shape Features. Lecture Notes in Computer Science, 2022, , 222-231.	1.0	3
2	A contrast-adaptive method for simultaneous whole-brain and lesion segmentation in multiple sclerosis. NeuroImage, 2021, 225, 117471.	2.1	54
3	Joint Segmentation Of Multiple Sclerosis Lesions And Brain Anatomy In MRI Scans Of Any Contrast And Resolution With CNNs. , 2021, 2021, 1971-1974.		3
4	Cone beam computed tomography based image guidance and quality assessment of prostate cancer for magnetic resonance imaging-only radiotherapy in the pelvis. Physics and Imaging in Radiation Oncology, 2021, 18, 55-60.	1.2	4
5	An Augmentation Strategy to Mimic Multi-Scanner Variability in MRI. , 2021, , .		1
6	A Contrast Augmentation Approach to Improve Multi-Scanner Generalization in MRI. Frontiers in Neuroscience, 2021, 15, 708196.	1.4	6
7	Reliability and sensitivity of two whole-brain segmentation approaches included in FreeSurfer â€" ASEG and SAMSEG. NeuroImage, 2021, 237, 118113.	2.1	10
8	Accurate and robust whole-head segmentation from magnetic resonance images for individualized head modeling. NeuroImage, 2020, 219, 117044.	2.1	73
9	3D Reconstruction and Segmentation of Dissection Photographs for MRI-Free Neuropathology. Lecture Notes in Computer Science, 2020, , 204-214.	1.0	3
10	Semi-supervised Variational Autoencoder for Survival Prediction. Lecture Notes in Computer Science, 2020, , 124-134.	1.0	0
11	A Longitudinal Method for Simultaneous Whole-Brain and Lesion Segmentation in Multiple Sclerosis. Lecture Notes in Computer Science, 2020, , 119-128.	1.0	3
12	MRâ€based CT metal artifact reduction for headâ€andâ€neck photon, electron, and proton radiotherapy. Medical Physics, 2019, 46, 4314-4323.	1.6	7
13	PSACNN: Pulse sequence adaptive fast whole brain segmentation. NeuroImage, 2019, 199, 553-569.	2.1	29
14	Personalized Radiotherapy Design for Glioblastoma: Integrating Mathematical Tumor Models, Multimodal Scans, and Bayesian Inference. IEEE Transactions on Medical Imaging, 2019, 38, 1875-1884.	5.4	96
15	A modality-adaptive method for segmenting brain tumors and organs-at-risk in radiation therapy planning. Medical Image Analysis, 2019, 54, 220-237.	7.0	31
16	Magnetic resonance-based computed tomography metal artifact reduction using Bayesian modelling. Physics in Medicine and Biology, 2019, 64, 245012.	1.6	4
17	Joint Inference on Structural and Diffusion MRI for Sequence-Adaptive Bayesian Segmentation of Thalamic Nuclei with Probabilistic Atlases. Lecture Notes in Computer Science, 2019, 11492, 767-779.	1.0	5
18	Fast Nonparametric Mutual-Information-based Registration and Uncertainty Estimation. Lecture Notes in Computer Science, 2019, , 42-51.	1.0	1

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19	Relevance Vector Machines for Harmonization of MRI Brain Volumes Using Image Descriptors. Lecture Notes in Computer Science, 2019, , 77-85.	1.0	1
20	Systematic comparison of different techniques to measure hippocampal subfield volumes in ADNI2. NeuroImage: Clinical, 2018, 17, 1006-1018.	1.4	56
21	Characterization of highly multiplexed monolithic PET / gamma camera detector modules. Physics in Medicine and Biology, 2018, 63, 075017.	1.6	18
22	A probabilistic atlas of the human thalamic nuclei combining ex vivo MRI and histology. NeuroImage, 2018, 183, 314-326.	2.1	334
23	Skull segmentation from MR scans using a higher-order shape model based on convolutional restricted Boltzmann machines. , 2018, , .		1
24	CT metal artifact reduction using MR image patches. , 2018, , .		2
25	An automatically generated texture-based atlas of the lungs. , 2018, , .		0
26	PET/MRI in the Presence of Metal Implants: Completion of the Attenuation Map from PET Emission Data. Journal of Nuclear Medicine, 2017, 58, 840-845.	2.8	32
27	A machine learning method for fast and accurate characterization of depth-of-interaction gamma cameras. Physics in Medicine and Biology, 2017, 62, 8376-8401.	1.6	15
28	High-resolution magnetic resonance imaging reveals nuclei of the human amygdala: manual segmentation to automatic atlas. NeuroImage, 2017, 155, 370-382.	2.1	304
29	A patch-based pseudo-CT approach for MRI-only radiotherapy in the pelvis. Medical Physics, 2016, 43, 4742-4752.	1.6	63
30	Computed tomography synthesis from magnetic resonance images in the pelvis using multiple random forests and auto-context features. Proceedings of SPIE, 2016, , .	0.8	16
31	Brain Tumor Segmentation Using a Generative Model with an RBM Prior on Tumor Shape. Lecture Notes in Computer Science, 2016, , 168-180.	1.0	25
32	A generative model for segmentation of tumor and organs-at-risk for radiation therapy planning of glioblastoma patients. Proceedings of SPIE, 2016, , .	0.8	2
33	Fast and sequence-adaptive whole-brain segmentation using parametric Bayesian modeling. NeuroImage, 2016, 143, 235-249.	2.1	101
34	Bayesian longitudinal segmentation of hippocampal substructures in brain MRI using subject-specific atlases. NeuroImage, 2016, 141, 542-555.	2.1	130
35	A Generative Probabilistic Model and Discriminative Extensions for Brain Lesion Segmentation— With Application to Tumor and Stroke. IEEE Transactions on Medical Imaging, 2016, 35, 933-946.	5.4	67
36	Regional Hippocampal Atrophy and Higher Levels of Plasma Amyloid-Beta Are Associated With Subjective Memory Complaints in Nondemented Elderly Subjects. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2016, 71, 1210-1215.	1.7	49

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37	Simultaneous Whole-Brain Segmentation and White Matter Lesion Detection Using Contrast-Adaptive Probabilistic Models. Lecture Notes in Computer Science, 2016, , 9-20.	1.0	2
38	The Multimodal Brain Tumor Image Segmentation Benchmark (BRATS). IEEE Transactions on Medical Imaging, 2015, 34, 1993-2024.	5.4	3,589
39	An algorithm for optimal fusion of atlases with different labeling protocols. NeuroImage, 2015, 106, 451-463.	2.1	16
40	Quantitative comparison of 21 protocols for labeling hippocampal subfields and parahippocampal subregions in in vivo MRI: Towards a harmonized segmentation protocol. NeuroImage, 2015, 111, 526-541.	2.1	284
41	A computational atlas of the hippocampal formation using ex vivo, ultra-high resolution MRI: Application to adaptive segmentation of in vivo MRI. NeuroImage, 2015, 115, 117-137.	2.1	939
42	Bayesian segmentation of brainstem structures in MRI. NeuroImage, 2015, 113, 184-195.	2.1	186
43	Cone beam computed tomography guided treatment delivery and planning verification for magnetic resonance imaging only radiotherapy of the brain. Acta Oncológica, 2015, 54, 1496-1500.	0.8	34
44	Patchâ€based generation of a pseudo CT from conventional MRI sequences for MRIâ€only radiotherapy of the brain. Medical Physics, 2015, 42, 1596-1605.	1.6	119
45	4-D PET-MR with Volumetric Navigators and Compressed Sensing. Lecture Notes in Computational Vision and Biomechanics, 2015, , 93-101.	0.5	1
46	Bayesian Tomographic Reconstruction Using Riemannian MCMC. Lecture Notes in Computer Science, 2015, , 619-626.	1.0	2
47	Improved resolution and reliability in dynamic PET using Bayesian regularization of MRTM2. , 2014, , .		0
48	A voxel-based investigation for MRI-only radiotherapy of the brain using ultra short echo times. Physics in Medicine and Biology, 2014, 59, 7501-7519.	1.6	89
49	A Cautionary Analysis of STAPLE Using Direct Inference of Segmentation Truth. Lecture Notes in Computer Science, 2014, 17, 398-406.	1.0	8
50	An Inference Language for Imaging. Lecture Notes in Computer Science, 2014, , 61-72.	1.0	3
51	Improved inference in Bayesian segmentation using Monte Carlo sampling: Application to hippocampal subfield volumetry. Medical Image Analysis, 2013, 17, 766-778.	7.0	36
52	A unified framework for cross-modality multi-atlas segmentation of brain MRI. Medical Image Analysis, 2013, 17, 1181-1191.	7.0	46
53	Predicting the location of human perirhinal cortex, Brodmann's area 35, from MRI. NeuroImage, 2013, 64, 32-42.	2.1	81
54	Is Synthesizing MRI Contrast Useful for Inter-modality Analysis?. Lecture Notes in Computer Science, 2013, 16, 631-638.	1.0	81

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55	Fast, Sequence Adaptive Parcellation of Brain MR Using Parametric Models. Lecture Notes in Computer Science, 2013, 16, 727-734.	1.0	11
56	A Probabilistic, Non-parametric Framework for Inter-modality Label Fusion. Lecture Notes in Computer Science, 2013, 16, 576-583.	1.0	1
57	On Feature Relevance in Image-Based Prediction Models: An Empirical Study. Lecture Notes in Computer Science, 2013, , 171-178.	1.0	1
58	An Improved Optimization Method for the Relevance Voxel Machine. Lecture Notes in Computer Science, 2013, , 147-154.	1.0	0
59	A generative model for multi-atlas segmentation across modalities. , 2012, , 888-891.		21
60	The Relevance Voxel Machine (RVoxM): A Self-Tuning Bayesian Model for Informative Image-Based Prediction. IEEE Transactions on Medical Imaging, 2012, 31, 2290-2306.	5.4	41
61	Incorporating Parameter Uncertainty in Bayesian Segmentation Models: Application to Hippocampal Subfield Volumetry. Lecture Notes in Computer Science, 2012, 15, 50-57.	1.0	7
62	A Generative Model for Probabilistic Label Fusion of Multimodal Data. Lecture Notes in Computer Science, 2012, 7509, 115-133.	1.0	12
63	A Generative Approach for Image-Based Modeling of Tumor Growth. Lecture Notes in Computer Science, 2011, 22, 735-747.	1.0	45
64	Mild Cognitive Impairment: Differential Atrophy in the Hippocampal Subfields. American Journal of Neuroradiology, 2011, 32, 1658-1661.	1.2	100
65	The Relevance Voxel Machine (RVoxM): A Bayesian Method for Image-Based Prediction. Lecture Notes in Computer Science, 2011, 14, 99-106.	1.0	19
66	A Generative Model for Image Segmentation Based on Label Fusion. IEEE Transactions on Medical Imaging, 2010, 29, 1714-1729.	5.4	423
67	Segmentation of image ensembles via latent atlases. Medical Image Analysis, 2010, 14, 654-665.	7.0	64
68	Association of intramyocellular, intraperitoneal and liver fat with glucose tolerance in severely obese adolescents. European Journal of Endocrinology, 2010, 163, 413-419.	1.9	15
69	A Generative Model for Brain Tumor Segmentation in Multi-Modal Images. Lecture Notes in Computer Science, 2010, 13, 151-159.	1.0	132
70	Cerebral measurements and their correlation with the onset age and the duration of opioid abuse. Journal of Opioid Management, 2010, 6, 423-429.	0.2	4
71	Subjects With Intellectual Disability and Familial Need for Full-Time Special Education Show Regional Brain Alterations: A Voxel-Based Morphometry Study. Pediatric Research, 2009, 66, 306-311.	1.1	10
72	Encoding Probabilistic Brain Atlases Using Bayesian Inference. IEEE Transactions on Medical Imaging, 2009, 28, 822-837.	5.4	65

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73	Automated segmentation of hippocampal subfields from ultra–high resolution in vivo MRI. Hippocampus, 2009, 19, 549-557.	0.9	381
74	Predicting the location of entorhinal cortex from MRI. NeuroImage, 2009, 47, 8-17.	2.1	94
75	Asymmetric Image-Template Registration. Lecture Notes in Computer Science, 2009, 12, 565-573.	1.0	26
76	Supervised Nonparametric Image Parcellation. Lecture Notes in Computer Science, 2009, 12, 1075-1083.	1.0	6
77	Joint Segmentation of Image Ensembles via Latent Atlases. Lecture Notes in Computer Science, 2009, 12, 272-280.	1.0	4
78	Nonparametric Mixture Models for Supervised Image Parcellation. , 2009, 12, 301-313.		3
79	JNCL patients show marked brain volume alterations on longitudinal MRI in adolescence. Journal of Neurology, 2008, 255, 1226-1230.	1.8	20
80	Model-Based Segmentation of Hippocampal Subfields in Ultra-High Resolution In Vivo MRI. Lecture Notes in Computer Science, 2008, 11, 235-243.	1.0	19
81	Thalami and corona radiata in juvenile NCL (CLN3): a voxel-based morphometric study. European Journal of Neurology, 2007, 14, 447-450.	1.7	19
82	Probabilistic Brain Atlas Encoding Using Bayesian Inference. Lecture Notes in Computer Science, 2006, 9, 704-711.	1.0	19
83	Model-Based Brain Tissue Classification. , 2005, , 1-55.		0
84	A dosimetric study on the use of bolus materials for treatment of superficial tumors with BNCT. Applied Radiation and Isotopes, 2004, 61, 787-791.	0.7	15
85	Automatic brain tumor segmentation by subject specific modification of atlas priors1. Academic Radiology, 2003, 10, 1341-1348.	1.3	246
86	A unifying framework for partial volume segmentation of brain MR images. IEEE Transactions on Medical Imaging, 2003, 22, 105-119.	5.4	242
87	Automatic Brain and Tumor Segmentation. Lecture Notes in Computer Science, 2002, , 372-379.	1.0	59
88	Automated segmentation of multiple sclerosis lesions by model outlier detection. IEEE Transactions on Medical Imaging, 2001, 20, 677-688.	5.4	417
89	A Statistical Framework for Partial Volume Segmentation. Lecture Notes in Computer Science, 2001, , 204-212.	1.0	5
90	Validation of Nonlinear Spatial Filtering to Improve Tissue Segmentation of MR Brain Images. Lecture Notes in Computer Science, 2001, , 507-515.	1.0	0

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91	Automated model-based tissue classification of MR images of the brain. IEEE Transactions on Medical Imaging, 1999, 18, 897-908.	5.4	903
92	Automated model-based bias field correction of MR images of the brain. IEEE Transactions on Medical Imaging, 1999, 18, 885-896.	5.4	529
93	Automated Segmentation of MS Lesions from Multi-channel MR Images. Lecture Notes in Computer Science, 1999, , 11-21.	1.0	13
94	Quantification of Cerebral Grey and White Matter Asymmetry from MRI. Lecture Notes in Computer Science, 1999, , 348-357.	1.0	18
95	Automatic segmentation of brain tissues and MR bias field correction using a digital brain atlas. Lecture Notes in Computer Science, 1998, , 1222-1229.	1.0	12