Geert Js Litjens

List of Publications by Year
in descending order

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83 papers	18,652 citations	81743 39 h-index	88477 70 g-index
84 all docs	84 docs citations	84 times ranked	20692 citing authors

#	Article	IF	Citations
1	A survey on deep learning in medical image analysis. Medical Image Analysis, 2017, 42, 60-88.	7.0	7,976
2	Diagnostic Assessment of Deep Learning Algorithms for Detection of Lymph Node Metastases in Women With Breast Cancer. JAMA - Journal of the American Medical Association, 2017, 318, 2199.	3.8	2,003
3	Pulmonary Nodule Detection in CT Images: False Positive Reduction Using Multi-View Convolutional Networks. IEEE Transactions on Medical Imaging, 2016, 35, 1160-1169.	5.4	926
4	Deep learning as a tool for increased accuracy and efficiency of histopathological diagnosis. Scientific Reports, 2016, 6, 26286.	1.6	764
5	Large scale deep learning for computer aided detection of mammographic lesions. Medical Image Analysis, 2017, 35, 303-312.	7.0	728
6	Evaluation of prostate segmentation algorithms for MRI: The PROMISE12 challenge. Medical Image Analysis, 2014, 18, 359-373.	7.0	469
7	Automated deep-learning system for Gleason grading of prostate cancer using biopsies: a diagnostic study. Lancet Oncology, The, 2020, 21, 233-241.	5.1	407
8	Deep learning in histopathology: the path to the clinic. Nature Medicine, 2021, 27, 775-784.	15.2	355
9	Computer-Aided Detection of Prostate Cancer in MRI. IEEE Transactions on Medical Imaging, 2014, 33, 1083-1092.	5.4	338
10	Quantifying the effects of data augmentation and stain color normalization in convolutional neural networks for computational pathology. Medical Image Analysis, 2019, 58, 101544.	7.0	311
11	The 2019 International Society of Urological Pathology (ISUP) Consensus Conference on Grading of Prostatic Carcinoma. American Journal of Surgical Pathology, 2020, 44, e87-e99.	2.1	292
12	From Detection of Individual Metastases to Classification of Lymph Node Status at the Patient Level: The CAMELYON17 Challenge. IEEE Transactions on Medical Imaging, 2019, 38, 550-560.	5.4	269
13	The Medical Segmentation Decathlon. Nature Communications, 2022, 13, .	5.8	252
14	State-of-the-Art Deep Learning in Cardiovascular Image Analysis. JACC: Cardiovascular Imaging, 2019, 12, 1549-1565.	2.3	238
15	1399 H&E-stained sentinel lymph node sections of breast cancer patients: the CAMELYON dataset. GigaScience, 2018, 7, .	3.3	221
16	Stain Specific Standardization of Whole-Slide Histopathological Images. IEEE Transactions on Medical Imaging, 2016, 35, 404-415.	5.4	218
17	Whole-Slide Mitosis Detection in H&E Breast Histology Using PHH3 as a Reference to Train Distilled Stain-Invariant Convolutional Networks. IEEE Transactions on Medical Imaging, 2018, 37, 2126-2136.	5.4	184
18	Using deep learning to segment breast and fibroglandular tissue in MRI volumes. Medical Physics, 2017, 44, 533-546.	1.6	173

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19	Location Sensitive Deep Convolutional Neural Networks for Segmentation of White Matter Hyperintensities. Scientific Reports, 2017, 7, 5110.	1.6	171
20	Assessment of Prostate Cancer Aggressiveness Using Dynamic Contrast-enhanced Magnetic Resonance Imaging at 3 T. European Urology, 2013, 64, 448-455.	0.9	152
21	Artificial intelligence for diagnosis and Gleason grading of prostate cancer: the PANDA challenge. Nature Medicine, 2022, 28, 154-163.	15.2	143
22	In-depth tissue profiling using multiplexed immunohistochemical consecutive staining on single slide. Science Immunology, 2016, 1, aaf6925.	5.6	142
23	Context-aware stacked convolutional neural networks for classification of breast carcinomas in whole-slide histopathology images. Journal of Medical Imaging, 2017, 4, 1.	0.8	126
24	Neural Image Compression for Gigapixel Histopathology Image Analysis. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2021, 43, 567-578.	9.7	125
25	Epithelium segmentation using deep learning in H&E-stained prostate specimens with immunohistochemistry as reference standard. Scientific Reports, 2019, 9, 864.	1.6	107
26	Differentiation of Prostatitis and Prostate Cancer by Using Diffusion-weighted MR Imaging and MR-guided Biopsy at 3 T. Radiology, 2013, 267, 164-172.	3.6	105
27	The importance of stain normalization in colorectal tissue classification with convolutional networks. , 2017, , .		105
28	Learning to detect lymphocytes in immunohistochemistry with deep learning. Medical Image Analysis, 2019, 58, 101547.	7.0	98
29	Artificial intelligence assistance significantly improves Gleason grading of prostate biopsies by pathologists. Modern Pathology, 2021, 34, 660-671.	2.9	84
30	Computer aided quantification of intratumoral stroma yields an independent prognosticator in rectal cancer. Cellular Oncology (Dordrecht), 2019, 42, 331-341.	2.1	82
31	Automated Detection of DCIS in Whole-Slide H&E Stained Breast Histopathology Images. IEEE Transactions on Medical Imaging, 2016, 35, 2141-2150.	5.4	68
32	Interpatient Variation in Normal Peripheral Zone Apparent Diffusion Coefficient: Effect on the Prediction of Prostate Cancer Aggressiveness. Radiology, 2012, 265, 260-266.	3.6	66
33	Multiparametric Magnetic Resonance Imaging for Discriminating Low-Grade From High-Grade Prostate Cancer. Investigative Radiology, 2015, 50, 490-497.	3.5	63
34	Clinical evaluation of a computer-aided diagnosis system for determining cancer aggressiveness in prostate MRI. European Radiology, 2015, 25, 3187-3199.	2.3	57
35	Prostate Cancer: The European Society of Urogenital Radiology Prostate Imaging Reporting and Data System Criteria for Predicting Extraprostatic Extension by Using 3-T Multiparametric MR Imaging. Radiology, 2015, 276, 479-489.	3.6	53
36	Deep Learning Methods for Lung Cancer Segmentation in Whole-Slide Histopathology Imagesâ€"The ACDC@LungHP Challenge 2019. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 429-440.	3.9	51

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37	A Pattern Recognition Approach to Zonal Segmentation of the Prostate on MRI. Lecture Notes in Computer Science, 2012, 15, 413-420.	1.0	50
38	Residual cyclegan for robust domain transformation of histopathological tissue slides. Medical Image Analysis, 2021, 70, 102004.	7.0	48
39	Detection of Prostate Cancer in Whole-Slide Images Through End-to-End Training With Image-Level Labels. IEEE Transactions on Medical Imaging, 2021, 40, 1817-1826.	5.4	48
40	Computer-extracted Features Can Distinguish Noncancerous Confounding Disease from Prostatic Adenocarcinoma at Multiparametric MR Imaging. Radiology, 2016, 278, 135-145.	3.6	43
41	Impact of rescanning and normalization on convolutional neural network performance in multi-center, whole-slide classification of prostate cancer. Scientific Reports, 2020, 10, 14398.	1.6	40
42	Resolution-agnostic tissue segmentation in whole-slide histopathology images with convolutional neural networks. PeerJ, 2019, 7, e8242.	0.9	39
43	Comparison of different methods for tissue segmentation in histopathological whole-slide images. , 2017, , .		29
44	Automatic computer aided detection of abnormalities in multi-parametric prostate MRI. Proceedings of SPIE, 2011, , .	0.8	28
45	Streaming Convolutional Neural Networks for End-to-End Learning With Multi-Megapixel Images. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 1581-1590.	9.7	28
46	A Single-Arm, Multicenter Validation Study of Prostate Cancer Localization and Aggressiveness With a Quantitative Multiparametric Magnetic Resonance Imaging Approach. Investigative Radiology, 2019, 54, 437-447.	3.5	24
47	Robust and accurate quantification of biomarkers of immune cells in lung cancer micro-environment using deep convolutional neural networks. PeerJ, 2019, 7, e6335.	0.9	24
48	Automatic segmentation of histopathological slides of renal tissue using deep learning. , 2018, , .		23
49	MAGE expression in head and neck squamous cell carcinoma primary tumors, lymph node metastases and respective recurrences-implications for immunotherapy. Oncotarget, 2017, 8, 14719-14735.	0.8	21
50	Evaluation of tongue squamous cell carcinoma resection margins using ex-vivo MR. International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 821-828.	1.7	20
51	A multi-scale superpixel classification approach to the detection of regions of interest in whole slide histopathology images. Proceedings of SPIE, 2015, , .	0.8	19
52	Optimized tumour infiltrating lymphocyte assessment for triple negative breast cancer prognostics. Breast, 2021, 56, 78-87.	0.9	18
53	Artificial Intelligence for Diagnosis and Gleason Grading of Prostate Cancer in Biopsiesâ€"Current Status and Next Steps. European Urology Focus, 2021, 7, 687-691.	1.6	18
54	Automated 3â€dimensional segmentation of pelvic lymph nodes in magnetic resonance images. Medical Physics, 2011, 38, 6178-6187.	1.6	17

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55	Prostate158 - An expert-annotated 3T MRI dataset and algorithm for prostate cancer detection. Computers in Biology and Medicine, 2022, 148, 105817.	3.9	17
56	No pixel-level annotations needed. Nature Biomedical Engineering, 2019, 3, 855-856.	11.6	14
57	Artificial intelligence to detect MYC translocation in slides of diffuse large B-cell lymphoma. Virchows Archiv Fur Pathologische Anatomie Und Physiologie Und Fur Klinische Medizin, 2021, 479, 617-621.	1.4	14
58	H&E stain augmentation improves generalization of convolutional networks for histopathological mitosis detection. , 2018, , .		14
59	Automated computer-aided detection of prostate cancer in MR images: from a whole-organ to a zone-based approach. Proceedings of SPIE, 2012, , .	0.8	12
60	Lymph node detection in MR Lymphography: false positive reduction using multi-view convolutional neural networks. PeerJ, 2019, 7, e8052.	0.9	12
61	Quantitative identification of magnetic resonance imaging features of prostate cancer response following laser ablation and radical prostatectomy. Journal of Medical Imaging, 2014, 1, 035001.	0.8	11
62	Distinguishing prostate cancer from benign confounders via a cascaded classifier on multi-parametric MRI. Proceedings of SPIE, 2014, , .	0.8	11
63	Automated segmentation of epithelial tissue in prostatectomy slides using deep learning. , 2018, , .		11
64	Intranodal signal suppression in pelvic MR lymphography of prostate cancer patients: a quantitative comparison of ferumoxtran-10 and ferumoxytol. PeerJ, 2016, 4, e2471.	0.9	8
65	Predicting biochemical recurrence of prostate cancer with artificial intelligence. Communications Medicine, 2022, 2, .	1.9	8
66	Pharmacokinetic models in clinical practice: What model to use for DCE-MRI of the breast?. , 2010, , .		7
67	Automated detection of prostate cancer in digitized whole-slide images of H and E-stained biopsy specimens. , 2015, , .		7
68	Automatic color unmixing of IHC stained whole slide images. , 2018, , .		7
69	Machine Learning Compared With Pathologist Assessmentâ€"Reply. JAMA - Journal of the American Medical Association, 2018, 319, 1726.	3.8	6
70	Mini Review: The Last Mileâ€"Opportunities and Challenges for Machine Learning in Digital Toxicologic Pathology. Toxicologic Pathology, 2021, 49, 714-719.	0.9	6
71	Using deep learning for quantification of cellularity and cell lineages in bone marrow biopsies and comparison to normal age-related variation. Pathology, 2022, 54, 318-327.	0.3	6
72	Automated quantification of levels of breast terminal duct lobular (TDLU) involution using deep learning. Npj Breast Cancer, 2022, 8, 13.	2.3	6

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73	A Decade of GigaScience: The Challenges of Gigapixel Pathology Images. GigaScience, 2022, 11, .	3.3	3
74	Automated multistructure atlasâ€assisted detection of lymph nodes using pelvic MR lymphography in prostate cancer patients. Medical Physics, 2016, 43, 3132-3142.	1.6	2
75	Simulation of Nodules and Diffuse Infiltrates in Chest Radiographs Using CT Templates. Lecture Notes in Computer Science, 2010, 13, 396-403.	1.0	2
76	Predicting MYC translocation in HE specimens of diffuse large B-cell lymphoma through deep learning. , 2020, , .		2
77	Required Accuracy of MR-US Registration for Prostate Biopsies. Lecture Notes in Computer Science, 2011, , 92-99.	1.0	2
78	End-to-end classification on basal-cell carcinoma histopathology whole-slides images. , 2021, , .		1
79	Computer Aided Detection of Prostate Cancer Using T2, DWI and DCE MRI: Methods and Clinical Applications. Lecture Notes in Computer Science, 2010, , 4-14.	1.0	1
80	Distinguishing benign confounding treatment changes from residual prostate cancer on MRI following laser ablation. Proceedings of SPIE, 2014, , .	0.8	0
81	High resolution whole prostate biopsy classification using streaming stochastic gradient descent. , 2019, , .		0
82	Multi-class semantic cell segmentation and classification of aplasia in bone marrow histology images. , 2020, , .		0
83	Automatic tumour segmentation in H&E-stained whole-slide images of the pancreas.. , 2022, , .		0