Geert Js Litjens

List of Publications by Year
in descending order

83 papers	18,652 citations	81900 39 h-index	88630 70 g-index
84 all docs	84 docs citations	84 times ranked	20692 citing authors

#	Article	IF	Citations
1	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.	13.9	28
2	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.	0.6	6
3	Artificial intelligence for diagnosis and Gleason grading of prostate cancer: the PANDA challenge. Nature Medicine, 2022, 28, 154-163.	30.7	143
4	Automated quantification of levels of breast terminal duct lobular (TDLU) involution using deep learning. Npj Breast Cancer, 2022, 8, 13.	5.2	6
5	Automatic tumour segmentation in H&E-stained whole-slide images of the pancreas.. , 2022, , .		0
6	A Decade of <i>GigaScience</i>: The Challenges of Gigapixel Pathology Images. GigaScience, 2022, 11, .	6.4	3
7	Predicting biochemical recurrence of prostate cancer with artificial intelligence. Communications Medicine, 2022, 2, .	4.2	8
8	The Medical Segmentation Decathlon. Nature Communications, 2022, 13, .	12.8	252
9	Prostate158 - An expert-annotated 3T MRI dataset and algorithm for prostate cancer detection. Computers in Biology and Medicine, 2022, 148, 105817.	7.0	17
10	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.	2.8	14
11	Artificial intelligence assistance significantly improves Gleason grading of prostate biopsies by pathologists. Modern Pathology, 2021, 34, 660-671.	5.5	84
12	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.	6.3	51
13	Neural Image Compression for Gigapixel Histopathology Image Analysis. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2021, 43, 567-578.	13.9	125
14	Mini Review: The Last Mileâ€"Opportunities and Challenges for Machine Learning in Digital Toxicologic Pathology. Toxicologic Pathology, 2021, 49, 714-719.	1.8	6
15	End-to-end classification on basal-cell carcinoma histopathology whole-slides images. , 2021, , .		1
16	Optimized tumour infiltrating lymphocyte assessment for triple negative breast cancer prognostics. Breast, 2021, 56, 78-87.	2.2	18
17	Deep learning in histopathology: the path to the clinic. Nature Medicine, 2021, 27, 775-784.	30.7	355
18	Residual cyclegan for robust domain transformation of histopathological tissue slides. Medical Image Analysis, 2021, 70, 102004.	11.6	48

#	Article	IF	Citations
19	Artificial Intelligence for Diagnosis and Gleason Grading of Prostate Cancer in Biopsiesâ€"Current Status and Next Steps. European Urology Focus, 2021, 7, 687-691.	3.1	18
20	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.	8.9	48
21	Automated deep-learning system for Gleason grading of prostate cancer using biopsies: a diagnostic study. Lancet Oncology, The, 2020, 21, 233-241.	10.7	407
22	The 2019 International Society of Urological Pathology (ISUP) Consensus Conference on Grading of Prostatic Carcinoma. American Journal of Surgical Pathology, 2020, 44, e87-e99.	3.7	292
23	Impact of rescanning and normalization on convolutional neural network performance in multi-center, whole-slide classification of prostate cancer. Scientific Reports, 2020, 10, 14398.	3.3	40
24	Predicting MYC translocation in HE specimens of diffuse large B-cell lymphoma through deep learning. , 2020, , .		2
25	Multi-class semantic cell segmentation and classification of aplasia in bone marrow histology images. , 2020, , .		0
26	State-of-the-Art Deep Learning in Cardiovascular Image Analysis. JACC: Cardiovascular Imaging, 2019, 12, 1549-1565.	5.3	238
27	No pixel-level annotations needed. Nature Biomedical Engineering, 2019, 3, 855-856.	22.5	14
28	Quantifying the effects of data augmentation and stain color normalization in convolutional neural networks for computational pathology. Medical Image Analysis, 2019, 58, 101544.	11.6	311
29	Learning to detect lymphocytes in immunohistochemistry with deep learning. Medical Image Analysis, 2019, 58, 101547.	11.6	98
30	Epithelium segmentation using deep learning in H&E-stained prostate specimens with immunohistochemistry as reference standard. Scientific Reports, 2019, 9, 864.	3.3	107
31	Computer aided quantification of intratumoral stroma yields an independent prognosticator in rectal cancer. Cellular Oncology (Dordrecht), 2019, 42, 331-341.	4.4	82
32	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.	6.2	24
33	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.	8.9	269
34	Robust and accurate quantification of biomarkers of immune cells in lung cancer micro-environment using deep convolutional neural networks. PeerJ, 2019, 7, e6335.	2.0	24
35	Lymph node detection in MR Lymphography: false positive reduction using multi-view convolutional neural networks. PeerJ, 2019, 7, e8052.	2.0	12
36	Resolution-agnostic tissue segmentation in whole-slide histopathology images with convolutional neural networks. PeerJ, 2019, 7, e8242.	2.0	39

#	Article	IF	Citations
37	High resolution whole prostate biopsy classification using streaming stochastic gradient descent. , 2019, , .		0
38	Machine Learning Compared With Pathologist Assessmentâ€"Reply. JAMA - Journal of the American Medical Association, 2018, 319, 1726.	7.4	6
39	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.	8.9	184
40	1399 H&E-stained sentinel lymph node sections of breast cancer patients: the CAMELYON dataset. GigaScience, 2018, 7, .	6.4	221
41	Automated segmentation of epithelial tissue in prostatectomy slides using deep learning. , 2018, , .		11
42	H&E stain augmentation improves generalization of convolutional networks for histopathological mitosis detection. , 2018, , .		14
43	Automatic segmentation of histopathological slides of renal tissue using deep learning. , 2018, , .		23
44	Automatic color unmixing of IHC stained whole slide images. , 2018, , .		7
45	Using deep learning to segment breast and fibroglandular tissue in MRI volumes. Medical Physics, 2017, 44, 533-546.	3.0	173
46	A survey on deep learning in medical image analysis. Medical Image Analysis, 2017, 42, 60-88.	11.6	7,976
47	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.	7.4	2,003
48	Comparison of different methods for tissue segmentation in histopathological whole-slide images. , 2017, , .		29
49	Location Sensitive Deep Convolutional Neural Networks for Segmentation of White Matter Hyperintensities. Scientific Reports, 2017, 7, 5110.	3.3	171
50	The importance of stain normalization in colorectal tissue classification with convolutional networks. , 2017, , .		105
51	Evaluation of tongue squamous cell carcinoma resection margins using ex-vivo MR. International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 821-828.	2.8	20
52	Large scale deep learning for computer aided detection of mammographic lesions. Medical Image Analysis, 2017, 35, 303-312.	11.6	728
53	Context-aware stacked convolutional neural networks for classification of breast carcinomas in whole-slide histopathology images. Journal of Medical Imaging, 2017, 4, 1.	1.5	126
54	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.	1.8	21

#	Article	IF	Citations
55	Deep learning as a tool for increased accuracy and efficiency of histopathological diagnosis. Scientific Reports, 2016, 6, 26286.	3.3	764
56	Automated multistructure atlasâ€assisted detection of lymph nodes using pelvic MR lymphography in prostate cancer patients. Medical Physics, 2016, 43, 3132-3142.	3.0	2
57	Automated Detection of DCIS in Whole-Slide H&E Stained Breast Histopathology Images. IEEE Transactions on Medical Imaging, 2016, 35, 2141-2150.	8.9	68
58	In-depth tissue profiling using multiplexed immunohistochemical consecutive staining on single slide. Science Immunology, 2016, 1, aaf6925.	11.9	142
59	Pulmonary Nodule Detection in CT Images: False Positive Reduction Using Multi-View Convolutional Networks. IEEE Transactions on Medical Imaging, 2016, 35, 1160-1169.	8.9	926
60	Stain Specific Standardization of Whole-Slide Histopathological Images. IEEE Transactions on Medical Imaging, 2016, 35, 404-415.	8.9	218
61	Computer-extracted Features Can Distinguish Noncancerous Confounding Disease from Prostatic Adenocarcinoma at Multiparametric MR Imaging. Radiology, 2016, 278, 135-145.	7.3	43
62	Intranodal signal suppression in pelvic MR lymphography of prostate cancer patients: a quantitative comparison of ferumoxtran-10 and ferumoxytol. PeerJ, 2016, 4, e2471.	2.0	8
63	Multiparametric Magnetic Resonance Imaging for Discriminating Low-Grade From High-Grade Prostate Cancer. Investigative Radiology, 2015, 50, 490-497.	6.2	63
64	Automated detection of prostate cancer in digitized whole-slide images of H and E-stained biopsy specimens. , 2015, , .		7
65	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.	7.3	53
66	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
67	Clinical evaluation of a computer-aided diagnosis system for determining cancer aggressiveness in prostate MRI. European Radiology, 2015, 25, 3187-3199.	4.5	57
68	Quantitative identification of magnetic resonance imaging features of prostate cancer response following laser ablation and radical prostatectomy. Journal of Medical Imaging, 2014, 1, 035001.	1.5	11
69	Distinguishing prostate cancer from benign confounders via a cascaded classifier on multi-parametric MRI. Proceedings of SPIE, 2014, , .	0.8	11
70	Evaluation of prostate segmentation algorithms for MRI: The PROMISE12 challenge. Medical Image Analysis, 2014, 18, 359-373.	11.6	469
71	Computer-Aided Detection of Prostate Cancer in MRI. IEEE Transactions on Medical Imaging, 2014, 33, 1083-1092.	8.9	338
72	Distinguishing benign confounding treatment changes from residual prostate cancer on MRI following laser ablation. Proceedings of SPIE, 2014, , .	0.8	0

#	Article	IF	Citations
73	Assessment of Prostate Cancer Aggressiveness Using Dynamic Contrast-enhanced Magnetic Resonance Imaging at 3 T. European Urology, 2013, 64, 448-455.	1.9	152
74	Differentiation of Prostatitis and Prostate Cancer by Using Diffusion-weighted MR Imaging and MR-guided Biopsy at 3 T. Radiology, 2013, 267, 164-172.	7.3	105
75	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
76	Interpatient Variation in Normal Peripheral Zone Apparent Diffusion Coefficient: Effect on the Prediction of Prostate Cancer Aggressiveness. Radiology, 2012, 265, 260-266.	7.3	66
77	A Pattern Recognition Approach to Zonal Segmentation of the Prostate on MRI. Lecture Notes in Computer Science, 2012, 15, 413-420.	1.3	50
78	Automated 3â€dimensional segmentation of pelvic lymph nodes in magnetic resonance images. Medical Physics, 2011, 38, 6178-6187.	3.0	17
79	Automatic computer aided detection of abnormalities in multi-parametric prostate MRI. Proceedings of SPIE, 2011, , .	0.8	28
80	Required Accuracy of MR-US Registration for Prostate Biopsies. Lecture Notes in Computer Science, 2011, , 92-99.	1.3	2
81	Pharmacokinetic models in clinical practice: What model to use for DCE-MRI of the breast?. , 2010, , .		7
82	Simulation of Nodules and Diffuse Infiltrates in Chest Radiographs Using CT Templates. Lecture Notes in Computer Science, 2010, 13, 396-403.	1.3	2
83	Computer Aided Detection of Prostate Cancer Using T2, DWI and DCE MRI: Methods and Clinical Applications. Lecture Notes in Computer Science, 2010, , 4-14.	1.3	1